

MERCER
COUNTY COMMUNITY COLLEGE

COURSE CATALOG

2026 - '27
Academic Year

MERCER
COUNTY COMMUNITY COLLEGE

2026-2027 Academic Year

Contents

College Overview 2
Academic Calendar 3
- Mission and Goals 5
- Campuses 6
- Accreditation 7
- Alumni Relations 7
- Students at a Glance 7

Student Life 8
- Athletics, Fitness and Recreation 8
- Organizations and Clubs 9

Student Services and Resources 10
Enrollment 12
- How to Apply 12
- Academic Advising 12
- Credits from Other Educational and Life Experiences 13
- Developmental Studies 14
- Choosing a Program 15
- The Academic Year 15
- Transfer to Four-Year Colleges 16
- The University Center at Mercer: Advanced Degrees on Campus 16

Registration 17
- Student Records 17

Tuition and Fees 18
- Residency Requirements 18
- Chargeback Program 18
- Fees 18
- Payment, Refund 19

Financial Aid 20
- How to Apply 20
- General Eligibility Requirements 21
- Academic Requirements 21
- Scholarships and Awards 22
- MCCC Foundation Scholarships 22
- Sources of Aid 23
- Military and Veterans Benefits 25

Academic Policies and Regulations 26
- Class Attendance 26
- Withdrawal 26
- Independent Study 27
- Change of Program/Major 27
- Grading System 28
- Academic Standing Policy 29
- Degree Requirements 30
- General Education Policy 31
- Outstanding Scholastic Achievement 32

Programs of Study 33
- Degree and Certificate Programs 33
- Special Programs/Options 34

Governance and Personnel 35
- Board of Trustees and Administration 35
- Foundation 35
- Faculty and Staff 36

Campus Maps (WWC & JKC) 44
Academic Programs 45
Credit Courses 168

The catalog of Mercer County Community College, published annually, presents general information about MCCC, general academic regulations, and the College's academic program extant at the date of publication (August, 2026). All catalog content is deemed current and accurate as of this date. The College reserves the right to change the regulations, fees, and other information contained in this publication at any time without prior notice, although such changes will be announced.

Failure to read this publication does not excuse students from the requirements put forth herein.

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COUNTY COMMUNITY COLLEGE

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Join M on

609•586•4800

Admissions Office
609•570•3795

Mailing Address (both campuses)
PO Box 17202
Trenton, NJ 08690

West Windsor Campus
1200 Old Trenton Road
West Windsor, NJ 08550

James Kerney Campus
102 North Broad Street
Trenton, NJ 08608
609•570•3139

Mercer County Community College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools.

College Overview

Mercer County Community College (MCCC) is a publicly supported two-year college offering associate in arts, associate in science, and associate in fine arts degree programs that lead to transfer to four-year colleges. It also offers associate in applied science degrees in career areas, some of which also lead to transfer; certificates of proficiency in career specializations; and two certificates of proficiency in cooperation with Mercer County Technical Schools.

Through county and state support, the College is able to provide quality programs and services at the lowest possible cost to reduce economic barriers to attendance. State, federal, and private financial aid programs also are available to individual students.

Mercer is a coeducational institution with an open admissions policy. Students may enroll in credit programs as well as a variety of noncredit programs, and may attend day, evening, and weekend classes at the West Windsor Campus, the James Kerney Campus in Trenton, or through MercerOnline.

Inclusivity Statement

Mercer County Community College's (MCCC) students, faculty, and staff are diverse. MCCC strives to be inclusive and equitable, which is critical to our educational mission. MCCC seeks to embrace difference, adapt to change, and make scholarly contributions to the community at large. MCCC aims to create supportive and inclusive learning environments where individual differences are understood, respected, appreciated, and recognized as a source of strength.

Equal Opportunity Policy

Mercer County Community College is committed to a policy of equal treatment and opportunity in every respect of its relations with current and prospective faculty and staff members, without regard to race, color, religion, affectional or sexual orientation, gender and/or gender identity or expression, marital or parental status, ethnicity, nationality, veteran or military status, age, disability and any other legally protected basis. This includes, but is not limited to, recruitment, hiring or appointment, selection for training, transfer, layoff, promotion, compensation, and granting of tenure.

Questions regarding the equal opportunity policy and compliance statement may be directed to the Office of Human Resources, West Windsor Campus, (609) 570-3272.

Non-Discrimination Notice

In compliance with Title IX requirements, Mercer County Community College does not discriminate on the basis of sex in its education programs and activities.

The College's Title IX Coordinator oversees compliance with all aspects of the sex/gender harassment, discrimination and misconduct policy. The Coordinator reports to the Vice President for Academic Affairs and is based in the Student Center office SC220. Questions and complaints regarding Title IX may be directed to the Title IX Coordinator or the Office for Civil Rights as follows.

Dr. Dekia Gray, Dean of Students, Title IX Coordinator
Mercer County Community College
1200 Old Trenton Road – SC220
West Windsor, NJ 08550
Mail to: PO Box 17202, Trenton NJ 08690
Telephone: (609) 570-3526
E-mail: graydek@mccc.edu

In the event that an incident involves alleged misconduct by the Title IX Coordinator, reports should be made directly to:

Dr. Robert Schreyer, Provost and Vice President for Academic Affairs
Mercer County Community College
1200 Old Trenton Road – AD224
West Windsor, NJ 08550
Mail to: PO Box 17202, Trenton NJ 08690
Telephone: (609) 570-3330
E-mail: schreyer@mccc.edu

Individuals experiencing harassment or discrimination also always have the right to file a formal grievance with government authorities:

Office for Civil Rights
U.S. Department of Education
32 Old Slip, 26th Floor
New York, NY 10005-2500
Telephone: (646) 428-3800
Facsimile: (646) 428-3843
E-mail: OCR.NewYork@ed.gov
Web: http://www2.ed.gov/about/offices/list/ocr/index.html

Academic Calendar 2026-2027

FALL Semester 2026

April 13	Class registration begins
August 31	Classes begin – 15-week, Term F
August 31	7-week Term F7A
October 6	Classes begin – 10-week term F10
October 19	Classes end – 7A term
October 27	Classes begin – 7B term
November 25-29	Thanksgiving Recess (no classes)
December 20	Classes end – 14-week, 10-week, 7B terms

WINTER Session 2026-2027

November 13	Class registration begins
December 22	MercerOnline classes begin
January 4	On-campus classes begin
January 15	On-campus classes end
January 25	MercerOnline classes end

SPRING Semester 2027

November 9	Class registration begins
January 19	Classes begin – 14-week, 7A terms
February 23	Classes begin – 10-week term
March 8	Classes end – 7A term
March 23	Classes begin – 7B term
March 15-21	Recess / Spring Break (no classes)
May 11	Classes end – 14-week, 10-week, 7B terms
May 21	Commencement

SUMMER Session 2027

April 5	Class registration begins
May 17	Classes begin – U, UA terms
May 31	Holiday (no classes)
June 18	Holiday (no classes)
July 2	Classes end – UA term
July 5	Holiday (no classes)
July 6	Classes begin – UB term
August 16	Classes end – U, UB terms

The College reserves the right to modify this calendar.
Academic calendars for future years are available on the MCCC website.

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AM>
MARKETING CLUB








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Mission and Goals

MCCC enriches our community and empowers our students to achieve lifelong success by delivering high-quality, accessible education in a supportive and inclusive environment.
The following goals guide the College's quest to fulfill its mission:

1 To *Ensure* Student Success

- Implement the comprehensive Guided Pathways to Success model* so that students can readily follow the quickest route to completion (*GPS: Mapping Pathways to Student End Goals, Helping Students Enter a Pathway, Keeping Students on the Path, Ensuring that Students are Learning)
- Develop a systematic method for assessing and updating student intentions
- Increase the number of academic programs at the James Kerney Campus
- Increase success rates for low-income students and students of color
- Address the multiple needs of a diverse student body by meeting all students where they are and getting them to where they want to go (e.g., alternative class times, delivery modes, pedagogical models)
- Expand developmental education options to accelerate student transition to, and success in, college-level courses
- Redesign student intake process including advising to be proactive and remotely accessible
- Create actionable data, especially student cohort data, that shows where MCCC's entering students are succeeding and where they are not
- Maximize technology and social media to improve marketing, outreach, and the student experience
- Provide comprehensive evening and weekend college experiences

2 To *Expand* Innovative Partnerships

- Expand partnerships with Community Based Organizations (CBOs) to serve students with low-level college readiness and high need for financial assistance
- Expand dual/concurrent enrollment rates at MCCC
- Increase dual/concurrent enrollment rates specifically at the James Kerney Campus
- Expand the successful college readiness programs for students entering MCCC from county secondary schools
- Expand and improve partnerships with four-year colleges and universities
- Expand the University Center at MCCC and improve the visibility of the Center
- Create and support internships, experiential learning, global education and internationalization, and career planning opportunities for students
- Strengthen workforce development programs through partnerships with the business community and a comprehensive analysis of workforce needs
- Increase engagement with MCCC's alumni
- Enlist alumni and other retired professionals as volunteer mentors for our students
- Strengthen and expand partnerships with international academic institutions, foreign colleges and universities, and provider organizations

3 To *Invest* in Organizational and Professional Effectiveness

- Develop a systematic plan for increasing professional capacity of staff, faculty, and administrators
  - Use data and needs assessment analysis to plan and fund specific professional development activities
  - Incorporate specific details about student learning and support needs in professional development activities
  - Provide specific and concrete steps to improve student learning needs and the student learning experience
- Enhance resources available for the Center for Teaching and Learning based on initiatives with measureable student achievement goals
- Review the College's hiring and promotion policies to strengthen the requirement for professional development that directly links to student success
- Increase investment in technology that supports organizational effectiveness (e.g., communication apps, and Blackboard and Colleague modules related to student success)
- Evaluate the organizational structure on a regular basis to optimize institutional efficiency, integration, and effectiveness
- Implement Human Resource development software
- Develop a Competitor Analysis that shows the number and types of two-year and certificate programs available in a 25-mile radius of MCCC
- Increase College branding and targeted marketing to various student groups
- Improve employee engagement

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The West Windsor Campus (WWC)

The 292-acre West Windsor Campus is located approximately six miles north of Trenton on Old Trenton Road in West Windsor / Hamilton Townships, bordering Mercer County Park. The campus consists of 14 buildings, a greenhouse complex, and intercollegiate athletic facilities including a state-of-the-art all-weather soccer venue.

The central campus buildings surround a landscaped quad that provides an informal gathering place for students. Most buildings are connected by a second-floor, glass-enclosed corridor and accommodate the mobility challenged.

The campus is home to Kelsey Theatre, The Conference Center, WWFM-The Classical Network, the MCCC television network, and the MCCC Art Gallery.

MercerOnline

The Internet, computers, and independent study open alternate pathways to college. If you are highly motivated and enjoy working independently, virtual learning empowers you to decide when and where college fits into your busy schedule.

MCCC's online courses offer students convenient, flexible, quality learning options anytime, anywhere – 24 hours a day, 7 days a week. These interactive courses offer and deliver the same learning outcomes as traditional face-to-face classroom courses. Many programs allow students to complete the majority of course requirements online.

Distance learning classes at MCCC are developed and taught by adjunct and full-time faculty. In addition, a dedicated support team provides both online and face-to-face orientations, helping students get off to a great start.

Online courses transferable to other higher education institutions are available during Winter and Summer sessions as well as standard Fall and Spring semesters. Many four-year college students enjoy the savings and convenience of earning credits online at MCCC.

Distance learning is ideal for students capable of using technology, who have easy access to a personal computer with a reliable Internet connection, and possess good time-management skills. Thousands of students each semester opt for MercerOnline classes.

For more information, contact MercerOnline at (609) 570-3389 or email merceronline@mccc.edu or visit SC240 (student center) on the West Windsor campus.



The James Kerney Campus (JKC) in Trenton

The MCCC James Kerney Campus, a modernized educational facility serving as the educational hub for downtown Trenton, encompasses James Kerney Hall, Trenton Hall, and the JKC Career Center. Trenton Hall houses a fashion design sewing laboratory, art and design studio, Mac PC design laboratory, and photography gallery open to the public.

The campus features state-of-the-art Aseptic Biomanufactoring laboratory, biology and chemistry laboratories, five high-tech computer labs, seminar rooms, a multipurpose community room, and Student Commons. Additional student services include the comprehensive Dr. Beverly A. Richardson Learning Center (computers, tutoring, and Testing Center), campus library, and the Center City Café (serving full meals and snacks) staffed by MCCC culinary students.

Students can earn degrees in the MCCC Liberal Arts program entirely at the James Kerney Campus, which is also home to the college's Cybersecurity, Fashion, and Security Systems Technology programs. A dedicated Health & Wellness building serves non-credit Dental Assistant and Phlebotomy programs along with the credit Exercise Science program. High School Equivalency (HSE) and English as a Second Language (ESL) instruction and short-term options through the Career Training Institute are also offered, as is a full complement of educational and enrichment programs for the city's youth through Youth College.

Located at 102 North Broad Street between Hanover and Academy Streets, the campus is nestled between the Trenton Public Library, and the Daylight Twilight High School.

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Accreditation

Mercer County Community College is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267-284-5000), an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation. The State of New Jersey Secretary of Higher Education has authorized the College to award the associate degree.

Aviation Flight Technology is accredited by the Aviation Accreditation Board International.

The Funeral Service A.A.S. degree and Certificate are accredited by the American Board of Funeral Service Education (ABFSE), 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097; 816-233-3747 www.abfse.org.

The Medical Laboratory Technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Road, Suite 720, Rosemont, IL 60018; 773-714-8880 www.naacls.org.

The MCCC Nursing program is accredited by the New Jersey Board of Nursing, 124 Halsey Street, 6th Floor, Newark, NJ 07102; 973-504-6430.

The associate degree Nursing program at Mercer County Community College at the West Windsor campus located in West Windsor, New Jersey is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; 404-975-5000. The most recent accreditation decision made by the ACEN Board of Commissioners for the associate degree Nursing program is continuing accreditation. View the public information disclosed by the ACEN regarding this program at www.acenursing.org/acen-programs/mercer-county-community-college.

The Paralegal programs are approved by the American Bar Association (ABA).

The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 3030 Potomac Ave., Suite 100, Alexandria, VA 22305; 703-706-3245 www.capteonline.org.

The Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Driver, Suite 2850, Chicago, IL 60606; 312-704-5300, www.jycert.org, and the New Jersey Radiology Technology Board of Examiners, (Board), 25 Arctic Parkway, Ewing, NJ, 08648 www.nj.gov/dep/rpp/tec/rtboard.htm. Graduates are employed by hospitals, clinics, diagnostic imaging centers and the offices of private physicians.

The Radiography program and the Radiography Diploma program concentration of the Health Science program are accredited by the Joint Review Committee on Education and Radiologic Technology (JRCERT) and the New Jersey Radiologic Technology Board of Examiners.

Advisory Commissions

Advisory Commissions provide advice regarding established programs of study and serve as a communication link between the College and the community and between the College and professional, occupational, or special service groups. They acquaint the community with available college resources and the College with community needs. In addition to providing advice, commission members identify technical information, equipment, and facilities necessary to establish or to modify programs so that they will remain up-to-date. The backgrounds of commission members reflect the professional expertise necessary for each of the commissions.

Alumni Relations

No matter where life takes you after your time at Mercer County Community College, alumni remain part of the MCCC community for the rest of their lives. Whether through volunteering, attending events, or charitable giving, Mercer's Alumni Relations office provides numerous opportunities to stay connected with fellow alumni and with the college.

Qualification for alumnus status requires completion of 30 credits or more at MCCC, Trenton Junior College, or Trenton School of Industrial Arts. (Graduation is not required.)

Alumni Benefits

The MCCC Alumni Benefits Card entitles alumni to a variety of special services and privileges, including:

- College library borrowing privileges for most resources
- Kelsey Theatre student ticket rates
- MCCC Fitness Center membership discount
- Career Services resources and assistance
- Discount on the purchase of recreation permits

Alumni may obtain an Alumni Benefits Card by submitting an Alumni Contact Update Form available at www.mccc.edu/alumni or by calling (609) 570-3226 to arrange for card pick-up from the Alumni Relations office, AD101 on the West Windsor Campus.

For more information about these and other alumni opportunities, please visit www.mccc.edu/alumni or email alumni@mccc.edu.

Mercer Students at a Glance

- Approximately 9,000 students enroll in one or more credit courses each year.
- Mercer County residents comprise three-fourths of the student population.
- International students (non-immigrant), contributing to a diverse student population, represent more than 40 countries.
- Enrollment: 70% part-time, 30% full-time; 44% men and 56% women.
- The average age of a full-time student is 22; part-time 26.
- Average student/faculty ratio: 16 to 1.
- More than 50% of Mercer's graduates transfer to senior colleges or universities.

Student Life

At Mercer County Community College, we believe your campus life experience can be just as important as what you learn in the classroom. Student life fosters a vibrant and engaging environment that inspires students for growth and leadership, community outreach, self-discovery, networking, and collaboration.

New Student Orientation

Student Life professionals introduce new students to the college at an orientation each Fall and Spring semester. The program acquaints students with the services, policies, responsibilities, and rewards of attending MCCC.

Orientations generally include information about student support programs, a campus tour, and workshops on topics such as financial aid, tips for success and navigating the online apps for classes. Additionally, the orientations offer students structured activities for meeting other students, faculty, and college staff.

Student Life and Leadership

A variety of activities offers personal enrichment and extracurricular academic enhancement, significantly adding to the student's Mercer experience. Students are encouraged to take part in student clubs, organizations, event offerings and programs. Participation helps students develop skills in leadership, communications, community service, civic responsibility, health and wellness, networking, social interests, cultural appreciation, and problem solving.





Athletics, Fitness and Recreation

Athletics

Mercer County Community College's highly competitive intercollegiate athletic programs celebrate more than a half century of excellence in community college athletics. Eight teams - Men's and Women's Soccer, Basketball, and Tennis, as well as Baseball and Softball compete in the Garden State Athletic Conference (GSAC) and Region XIX of the National Junior College Athletic Association (NJCAA). Scholarship opportunities are available for qualifying student-athletes in all sports.

The Mustangs have maintained an impressive record throughout the course of their athletic history. Following are just a few of the numerous academic and athletic accomplishments that Mercer programs have achieved:

- 14 National Championships (Men's Soccer 8, Women's Tennis 4, Men's Basketball 2)
- Since 2024, nine teams have won Region XIX titles and captured 12 GSAC titles. Four of those teams went on to compete in National Championship play (Men's Soccer, Softball, Men's and Women's Tennis)
- Since 2023 five programs (Baseball, Softball, Women's Basketball, Men's and Women's Soccer) have been ranked in the top 20 in the nation
- From 2023 to 2026 a record number, 60+ student-athletes achieved Academic All-American status (3.6 GPA or higher)
- In 2024, 4 teams achieved Academic All-American Team status (3.0 GPA or higher)

Multiple MCCC student athletes have earned All-Region and All-Conference honors each year. More than 250 have been named NJCAA All-Americans.

Mercer's student-athletes know they must complement their athletic accomplishments by performing in the classroom. Each is expected to meet academic requirements and participate in academic monitoring. All are offered support services to help them succeed. Many earn academic achievement honors at the regional and national level.

Graduation and transfer rates for Mercer's student-athletes are consistently higher than the averages college-wide. Many receive scholarships to continue their academic and athletic careers at major colleges and universities throughout the United States.

Fitness and Recreation

All students are encouraged to take advantage of Mercer's facilities for personal health and fitness as well as recreational enjoyment. The MCCC Fitness Center is equipped with fitness essentials including strength and cardiovascular apparatus: treadmills, elliptical, bikes, and more. Students also have use of a six-lane, 25-meter swimming pool, tennis courts, and gymnasium during scheduled hours, and may participate in ongoing, free fitness classes including yoga and Zumba.

International Students

Mercer County Community College is proud to welcome a diverse international student population from more than 40 countries.

To support international students, the College offers specialized services including English as a Second Language (ESL) courses and core subjects taught specifically for an international population. The International Student Organization (ISO) provides a supportive community and fosters cultural diversity on campus, while the office of International Student Services offers guidance and information on immigration, academics, cultural adjustment, and personal concerns.

Toward helping new international students adjust to life in the United States, orientation sessions and ongoing workshops provide valuable information on American culture, college life, and immigration regulations.



Organizations

Student Government Association

The Student Government Association (SGA) is the student governing body for all enrolled students. As an elected member, a student has the opportunity to apply leadership skills and to work on programs and activities that contribute to college life.

The SGA oversees the formation of new clubs and operations of existing clubs. SGA members play an important role in college-wide governance as members of college standing committees.

Leadership Education and Development - L.E.A.D.

The Leadership Education and Development program implements a dynamic curriculum where students are encouraged to enhance their time at MCCC through opportunities that encourage participation in community service, social/educational activities, and speaking engagements by community members who are making a difference.

Participants are under the guidance of a coordinator, who helps them develop creative ideas to help them get involved in their school or community. The L.E.A.D program helps students develop creativity, confidence, accountability, and effective communication skills that they can apply in their daily lives.

Clubs

The College supports a generous variety of student clubs. Many are organized around a specific program of study; others are service or social clubs which allow members to take part in programs and activities with other students who share similar interests. All clubs give members the opportunity to get to know other students. New clubs form regularly, based on current student interests. For a full listing, see the college website.

Performance Groups

Music and dance participation includes the college chorus, jazz band, chamber ensemble, symphonic band, and dance ensemble.

Student Radio

Mustang 89, the College's all-student radio station, broadcasts from the West Windsor campus Student Center. Providing daily musical entertainment and announcements during Fall and Spring semesters at 89.1 FM (HD-3), the station offers hands-on experience in radio production and announcing.

Student Housing

Student housing is available at nearby Rider University and The College of New Jersey (TCNJ).

A unique arrangement between the three schools allows MCCC students to immerse themselves in the residential life on the Lawrenceville campus of Rider University or on the Ewing campus of TCNJ. Enjoying access to a wide range of essential services including housing, dining, transportation, healthcare and more.

For further details visit: www.mccc.edu/housing or email: housinginfo@mccc.edu

Student Services and Resources

Counseling and Wellness Center

The Counseling and Wellness Center offers free, confidential individual counseling to enrolled students. Services are provided by licensed mental health professionals and supervised graduate-level interns. The counselors help students resolve personal difficulties and acquire skills, abilities, and knowledge that will allow them to take full advantage of their college experience and make effective and satisfying life choices. Visit www.mccc.edu/counseling for more information.

Tutoring Services / Learning Centers

Tutoring Services fosters student success by helping students master the material and concepts taught in the classroom. This is achieved primarily via active tutoring sessions led by professional, peer, and Tutor.com tutors highly qualified in a wide variety of academic subjects and skills. Supplemental support includes study groups, workshops, study halls, and test preparation. For student convenience, tutors are available in multiple learning centers and other locations (some discipline-specific) at both campuses and online. Tutor.com provides students with 24/7 access to expert tutors, allowing them to get help whenever they need it, even outside of regular college hours. Students can receive support in a wide range of subjects, improve their understanding of course material, and build confidence in their academic skills. The service also offers writing feedback, test preparation, and study resources that help students become more independent and successful learners.

Visit www.mccc.edu/tutoring for more information including specific locations and schedules.

Computer Labs and Internet Access

MCCC is equipped with over 1300 computers for student use in 54 labs. Specialized Mac and PC-based labs support the studies of architecture, computer networking, cybersecurity, digital media arts, fashion design, game design, and mathematics.

Libraries at both campuses offer wi-fi access in addition to open computer labs. There, students have Internet access, print capability, and use of the latest Microsoft Office products and curriculum-specific applications. Attendants are available to answer questions and assist users. In addition, laptops can be signed out for in-library use. The student help desk is located at the Enrollment Center to assist with computer access and password issues.

Libraries

The libraries of Mercer County Community College offer a wide array of services and resources to complement and support academic programs and the learning needs of students, faculty, and staff.

A library is located on both the West Windsor and James Kerney campuses as well as at the Dempster Fire Training Center. Additionally, the library maintains a significant online presence through its website (www.mccc.edu/library) in support of MercerOnline. Currently enrolled students who choose the convenience of remote access to electronic library holdings and services may select from books, periodicals, images, legal resources, and reports.

Reference services are provided in-person, by telephone, e-mail, chat, and via instant messaging. Information literacy classes provide in-depth instruction on the use of library resources as well as AI literacy for research and for seeking information for class preparation.

Educational Opportunity Fund

Funded by the state, the Educational Opportunity Fund (EOF) assists eligible low-income, academically under-prepared New Jersey residents to attend college.

EOF is designed to assist participants in developing attitudes, skills, and abilities that enable them to achieve their educational goals. Students who are accepted into the EOF program are given personal counseling, academic advisement, tutoring, and supplemental instruction. Participants also benefit from cultural/educational enrichment activities, leadership development, tours of four-year colleges, as well as grants to those who qualify.

Military and Veterans Services

The MCCC Military and Veterans Services office assists veterans, military servicemembers, spouses, dependents, and supporters in a wide range of matters: college admissions, class registration, GI Bill® benefits, student advocacy, and more.

Located on the second floor of the West Windsor Campus Student Center, the office also coordinates with outside agencies to provide counseling and help with VA disability claims. A Veterans Lounge located in SC200 offers resources and other amenities for veteran students to relax and socialize.

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Center for Accessibility Resources

Mercer County Community College is deeply committed to ensuring student success. The mission of the Center for Accessibility Resources (C.A.R.) is to work collaboratively with faculty and students toward the development of accessible and inclusive learning environments characterized by student engagement fostering intellectual and personal growth.

The college recognizes disability as an aspect of diversity and the Center works to ensure inclusive learning environments both by encouraging the college community to examine accessibility and through the delivery of effective academic accommodations to qualified individuals.

C.A.R. facilitates the success of students with disabilities by providing intensive support including:

- outreach to incoming students prior to admission;
- a scheduled comprehensive intake interview;
- ongoing advisement and registration assistance;
- appropriate academic modifications;
- free academic tutoring through the college's Learning Centers;
- development of self-advocacy skills.

Mercer County Community College complies with section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA), including changes made by the ADA Amendment Act of 2008. For information on Universal Design for Learning, meeting the needs of students with disabilities, or the provision of academic accommodations, please visit www.mccc.edu/student_services_needs.

Career Services

Career planning is an important part of your academic journey, and your advisor is here to help you connect your educational goals with your future career. Through our holistic advising approach, career exploration is integrated into advising conversations from your first semester through graduation, helping you make informed decisions about your major, transfer plans, internships, and career opportunities.

Along the way, you'll have access to a variety of career resources and services, including career exploration tools, resume and interview preparation, career assessments, job and internship resources, career fairs, employer information sessions and campus visits, workshops, and other professional development opportunities designed to help you build the skills and confidence needed for success after Mercer.

Visit https://www.mccc.edu/student_services_counseling_career.shtml for more information and access to resources.

Testing Centers

Academic Testing Centers on both campuses provide students, faculty, staff, and the community with examination services. Whether for courses taught on campus or online, instructors utilize these facilities for computer-scored and instructor-graded tests. Students may take tests arranged by their instructors. Admission to the Testing Centers requires a student photo ID, obtained at the Security ID station upon class enrollment.

The Testing Centers administer course placement testing for new students. The West Windsor Campus Testing Center also administers tests for "credit by examination" programs including the College Level Examination Program (CLEP) and DANTES Subject Standardized Tests (DSST) to earn college credits in a variety of courses. In addition, proctoring is available for distance learning programs nationwide.

Visit www.mccc.edu/testing for more information, including hours and policies.

Food Pantry

An on-campus resource designed to provide free food, snacks, and daily essentials to students facing food insecurity. Visit www.mccc.edu/pantry for pantry hours and/or more information.

MyMercer Student Portal

Students can browse courses, register for classes, make payments, explore and monitor financial aid, view and print class schedules, grades and transcripts, and take advantage of many additional online services and features once signed in to their individual account at the College's student portal, MyMercer.

www.mccc.edu/**mymercer**

Instructions to determine the username and password required for MyMercer sign-in is available at www.mccc.edu/mymercer. Students are encouraged to bookmark this MyMercer entry page to stay connected and informed.

complete content at
www.mccc.edu/catalog

Enrollment

Admission to Mercer County Community College is open to anyone who can benefit from a post-secondary education. MCCC's student body is diverse and includes both young adults as well as older learners.

Students may attend classes during the day, evening, or on weekends at the West Windsor or James Kerney campuses, or online through MercerOnline. They may enroll full- or part-time toward earning a degree or certificate, or simply take a few classes.

Mercer welcomes applicants from other New Jersey counties and from other states and countries but reserves the right to limit such enrollments in programs with limited staff and physical capacity.

How to Apply

Prospective students must complete an admission application and have high school and/or college transcripts, or GED scores, and immunization records sent to the Enrollment office. SAT or ACT scores may also be sent. Although not required for admission, the results of SAT or ACT assessment may be used for course placement.

Applicants are encouraged to apply online via the College website (www.mccc.edu). Applications are also available at the Enrollment Center on each campus. The College accepts applications throughout the year.

Immunization

State law requires each student matriculated in a degree program to provide a valid record of immunization for or immunity from measles, mumps, rubella (MMR) as well as hepatitis and the meningococcal vaccine. Students must complete the Immunization Record form available from the Enrollment Center and have it signed by their physician.

Students who attended elementary and secondary school in New Jersey may be able to obtain a copy of their immunization record from their high school. A copy of this record is acceptable in place of the college Immunization Record form.

Additionally, the law provides for exemption from submitting an Immunization Record form if a student was born before 1957, has a medical reason for not being immunized, or has a religious objection to immunizations. Students wishing to apply for an exemption may do so at the Enrollment Center.

College Skills Placement Testing

Students enrolling at Mercer may be required to take a college skills placement test, available at the Testing Center on both campuses. Placement test results do not affect admission to the college; however, scores will determine eligibility for certain courses and programs.

English as a Second Language Placement Testing

Students whose native language is not English and those wishing to enroll in English as a Second Language (ESL) courses should complete the ESL placement test. Contact the office of International Student Services for more information.

Academic Advising

Academic Advising is a collaborative partnership focused on helping you achieve your educational, career, transfer, and personal goals. Through our holistic advising approach, your Academic Advisor works with you throughout your academic journey to develop an educational plan, monitor your academic progress, discuss career and transfer opportunities, and connect you with resources that support your success both inside and outside the classroom. Mercer utilizes a cohort, appointment-based advising model, allowing you to build an ongoing relationship with a dedicated advisor who understands your goals and provides personalized guidance from semester to semester.

Visit https://www.mccc.edu/admissions_academic.shtml to book an appointment with your assigned advisor.

Faculty Advising

Faculty Advisors complement the work of your Academic Advisor by providing discipline specific guidance and mentorship within your program of study. As experts in your academic field, Faculty Advisors can discuss curriculum, career pathways within the discipline, undergraduate research, internships, transfer opportunities related to your major, and preparation for employment or graduate education. Together, your Academic Advisor and Faculty Advisor provide comprehensive support to help you make informed decisions and achieve your academic and professional goals.

Admission Assistance

Help is available at every step in the admission process. Students are encouraged to visit the college and meet with staff and faculty. To arrange a campus tour or for additional information or assistance, contact the Enrollment Center at either Mercer County Community College campus:

West Windsor Campus
1200 Old Trenton Road
West Windsor, New Jersey 08550
(609) 570-3244
E-mail: admiss@mccc.edu

James Kerney Campus
102 North Broad Street
Trenton, New Jersey 08608
(609) 570-3139

Class Registration

Online: Continuing and returning students can register online.

In-Person: Students can register in person during normal operating hours at the Advising Center on the West Windsor campus or at the Student Services office on the James Kerney Campus.

Credits from Other Educational and Life Experiences

Advanced Standing

Mercer will grant advanced standing for demonstrated knowledge gained from courses taken in high school that are equivalent to collegiate entry-level courses. Advanced standing may be granted in foreign languages, mathematics, and other disciplines. Check individual programs for specific information, and contact the Enrollment office to determine eligibility.

Advanced Placement

Students who complete Advanced Placement courses during high school and pass Advanced Placement tests at the 3 level or higher are eligible for course credit in the following disciplines:

- Art
- Biology
- Calculus I
- Calculus II
- Chemistry
- Chinese
- Computer Science
- Economics
- English
- Environmental Science
- French
- Geography
- German
- Government and Politics
- History
- Italian
- Japanese
- Latin
- Music
- Physics
- Psychology
- Spanish
- Statistics

Credit for Nontraditional Learning Experience

Mercer recognizes that learning in the classroom is only part of the learning that takes place in the modern world. Credit may be granted by examinations and other demonstrations of knowledge or skills acquired outside the traditional classroom. These include appropriate life and work experience through military schools, proprietary schools, or training programs.

Detailed information about credits awarded for nontraditional learning experience is available from the Enrollment office. Mercer reserves the right to deny inappropriate credit requests.

Veterans may wish to have their military training and experience evaluated for possible college credit. Those wishing to do so should contact the Military and Veterans Services office and submit Joint Service Transcript (JST) or Community College of the Air Force (CCAF) transcripts for evaluation.



Transfer Credits from Other Colleges

Many students use transfer credits earned at other accredited colleges to complete some of their program requirements for a Mercer degree or certificate. In most programs, transfer credits and/or credits awarded by other nontraditional means may be applied, except that a minimum of 15 credits, including those for at least two sophomore-level courses in the major, must be earned at Mercer. Only courses in which a grade of C or better was earned are eligible for transfer credits.

To have credits from another college reviewed for transfer, the student must request that college to send an official transcript of his or her coursework to Mercer's Registrar's Office. Foreign transcripts will require, at the student's expense, translation and evaluation by an approved outside agency.

Approved transfer credits are entered on the student's transcript only after the student has been accepted in their chosen degree program and is enrolled in classes at Mercer.

College Opportunity for Young Adults with Intellectual Disabilities

Mercer County Community College's DREAM Program provides transition and postsecondary program opportunities for students who, due to limitations in both intellectual and adaptive behaviors, require additional supports to navigate the postsecondary environment.

Upon successful application and acceptance to the program, identified students, ages 18-24, have the opportunity to reach individual goals in an inclusive and supportive college setting.

For additional information, visit the MCCC DREAM Program in LB207 on the West Windsor campus or call: 609-570-3422.

Developmental Studies

Enrollment in Academic Foundation Courses

If scores on academic placement tests in reading, writing, or mathematics do not meet the standards for college-level work, students are required to take foundation courses before taking courses that require proficiency in those skill areas. Full-time students are expected to complete these courses during their first year, typically in the first semester. Part-time students must enroll in at least one of their required foundation courses each semester.

A variety of 0-level foundation courses allows each student to choose a path that best fits their interests. Academic advisors, individually assigned, help foundation students navigate their choices, while supportive faculty helps them connect with campus academic and social networks.

Class options involve accelerated and computer-based modular classes as well as traditional foundation reading, writing, and mathematics courses. Details on the college's 0-level foundation courses can be found among English and Mathematics course descriptions.

English

Mercer offers two levels of developmental English. Students who would benefit from the most support place into ENG 023 / 033. They may be able to participate in the READY Program and qualify for ENG 101 in one semester. READY is an immersive and rigorous experience that engages students in an accelerated, yet highly supported, academic program.

Students placing into ENG 024 / 034 often need somewhat less of an intensive experience and are permitted to enroll in ENG 101 upon successful completion of these courses. Still, some students will benefit from two semesters of developmental English.

All placement decisions are made using multiple measures, including students' own self-assessment of where they would expect to be most successful.

MATHEMATICS

MAT 037, MAT 038, MAT 042, MAT 044

Foundation courses in mathematics provide students with the skills and concepts needed to succeed in mathematics and in other disciplines.

MAT 037 (Beginning Algebra) and MAT 038 (Intermediate Algebra for STEM) are offered in a classroom setting using a variety of instructional strategies.

MAT 042 (Foundation Math for Non-STEM) and MAT 044 (Foundation Math for STEM) offer students a self-paced, modularized approach to the required curriculum. Students work in a lab setting with the support of faculty and tutors available to assist individuals or small groups as necessary.

Students may complete more than one course in a semester. Those failing to complete the course curriculum in one term can start the following term where they left off, rather than repeating the beginning of the course.

DEVELOPMENTAL MATH, READING, AND COMPOSITION

Placement test scores (see page 12) determine if these courses are required.

FIRST SEMESTER

Code	Course (lecture/lab hours)	Credits
CSW 100	College Success and Personal Wellness (2/0)†	2
ENG 023	Introduction to College Composition I (4/0)	4
ENG 033	Introduction to College Reading I (4/0)	4
MAT —	Mathematics course[1]	3-4
		13-14

TO DO THIS SEMESTER

- ✓ Meet with your faculty advisor to make an academic plan.
- ✓ Check your MercerMail daily.
- ✓ Contact professors with questions and use their office hours to develop a connection.
- ✓ Use Learning Centers or eTutoring to maximize your success.

SECOND SEMESTER

Code	Course (lecture/lab hours)	Credits
CSW 100	College Success and Personal Wellness (2/0)† OR[2]	2
— —	General Education elective	
ENG 024	Introduction to College Composition II (4/0)	4
ENG 034	Introduction to College Reading II (4/0)	4
MAT —	Mathematics course[1]	3-4
		13-14

TO DO THIS SEMESTER

- ✓ Meet with your faculty advisor to make an academic plan.
- ✓ Check your MercerMail daily.
- ✓ Contact professors with questions and use their office hours to develop a connection.
- ✓ Use Learning Centers or eTutoring to maximize your success.

Choosing a Program

Mercer offers a wide variety of programs which lead directly to employment or to transfer to other colleges for further education. Professional staff and faculty are available to assist students in selecting programs most suited to their needs and goals. (See sections on Programs of Study, Career Services, and Transfer to Four-Year Colleges.)

It is important for students to select their program of study carefully and to consider the following:

- What careers interest me?
- Is a four-year college education in my future?
- What credits will I be able to transfer to a four-year college?
- Which college program will provide the best training for the career I want?
- What are the academic requirements of the program that is best for me? Given my abilities and interests, am I being realistic?
- How can I plan my financial resources and meet personal responsibilities so that I can go to college?
- What college services and financial programs are available to me?

Program Acceptance

Acceptance in a particular program is based on an applicant's qualifications as evidenced by transcripts of previous academic work, professional recommendations, level of interest, and estimated potential for success. Student enrollment in certain programs is limited due to available facilities and staff. Preference for space in these programs is given to Mercer County residents and early applicants.

Mercer County Community College will not discriminate against any applicant on the basis of personal beliefs or characteristics such as political views, religion, national or ethnic origin, race, color, gender, sexual orientation, age, marital status, veteran status, or disability unrelated to job or program requirements.

Students who are undecided about which degree program to choose or who want to take some courses before choosing a degree program may register for individual courses provided any specified entry requirements (prerequisites and corequisites) are met. Those unsure about a major field of study should indicate a general interest. The admission process cannot continue until a major field or interest area has been declared.

Students who are under 18 years of age must submit written approval from a parent or guardian and school counselor to the Enrollment office before they will be permitted to register for courses.

Changing Programs

Changing program students are permitted to switch from one program to another provided that admission requirements for the new program are satisfied and space is available. (See page 26 for procedure.) NOTE: Students who change their program of study must complete all requirements listed in the academic catalog in effect at the time of the program change.

The Academic Year

Mercer's courses are offered frequently enough to allow students to progress toward their degrees or certificates in a reasonable period of time. However, not every course can be offered every semester and term. For student convenience, day, evening, and weekend classes are available throughout the year. Classes are held on both MCCC campuses, at off-campus sites, and through MercerOnline.

Most classes in the regular Fall and Spring semesters meet for 14 weeks, while a variety of accelerated courses meet for seven or 10 weeks. Winter Session, beginning in mid-December, offers accelerated two- and six-week courses. Summer terms begin in late May and early July. Classes in shorter terms meet more hours per week in order to cover the material of a typical full semester.

Full-Time Study

For full-time status, students must take 12 or more course credits in a semester. While 12 is the minimum course load for a student to be considered full-time for financial aid purposes, completing most academic programs in four semesters requires taking at least 15 credits each semester.

A typical full-time credit load can range from 12 to 18 credits. Students wishing to carry more must obtain approval from their advisor or academic division.

Part-Time Study

Part-time students take 11 or fewer course credits in a semester. They benefit from the same facilities and services as full-time students and have access to the same faculty and most programs of study. They complete program requirements in varying periods of time, depending on the number of credits required by the program and the number of credits completed each semester.

Part-time students may take up to 10 years to complete the coursework for most programs. Some technical programs, however, require that coursework be completed within five years.

Advisement staff is available at both campuses during evening hours to assist part-time evening students with course and program selection as well as career planning.



Transfer to Four-Year Colleges

Transfer planning is an important part of your academic journey, whether you are exploring future opportunities or have already identified a transfer institution. Through our holistic advising approach, transfer planning is integrated into advising conversations to help you make informed decisions about course selection, degree completion, and preparation for a successful transition to a four-year institution. Along the way, you'll have access to a variety of transfer resources and services, including transfer planning tools, information about transfer agreements and partnerships, transfer events and college fairs, visits from four-year college and university representatives, application guidance, and other resources designed to help you achieve your educational goals beyond Mercer.
Visit https://www.mccc.edu/student_services_transfer.shtml for more information and access to resources.

Transfer Within New Jersey

Many four-year colleges and universities in New Jersey have adopted "Transfer and Articulation Principles" and a "General Education Foundation" to help maximize transfer credits for courses taken at community colleges. Although Mercer's degree programs align with these statewide agreements, admission to a four-year institution is not guaranteed, and admission requirements vary.

Students can transfer their academic credits from a completed community college Associate of Arts (A.A.) or Associate of Science (A.S.) degree program to Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) programs, respectively, as half of the credits required for a four-year degree.

Using the online information system NJ Transfer (www.njtransfer.org), students can check the transferability of their Mercer courses and plan a program of study that will transfer to the New Jersey college of their choice.

The University Center at Mercer: Advanced Degrees on Campus

Extending beyond opportunities for two-year associate degrees, Mercer County Community College maintains agreements with other New Jersey institutions of higher education to allow students to earn bachelor's and even master's degrees on-site at MCCC's West Windsor campus.

For information on these and other such programs, contact Transfer Services or the related academic division at Mercer.

Rutgers, The State University of New Jersey

- B.A., Business Administration
- B.S., Criminal Justice
- B.S., Labor and Employment Relations
- B.A., Liberal Studies
- RN to B.S., Nursing
- B.A., Political Science
- B.A., Psychology
- B.S., Public Health





Registration

Register for Classes

Online

Continuing and returning students can register online via the college website (www.mccc.edu).

In-Person

Students can register in person during normal operating hours at the Enrollment Center on the West Windsor Campus or at the Student Services office on the James Kerney Campus

Student Records

Student Identifier

The MCCC admissions application requires a Social Security number, for federal and state reporting purposes only. Once enrolled, students are assigned a unique student identifier (for the college's administrative system only – not for student use), which appears on each student's class schedule as well as on instructor class rosters.





Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their academic records. For more information on specific provisions of the Act, refer to the "Statement of Student Rights and Responsibilities" section in the Student Handbook.

The College has designated the following student information as public or Directory Information. Such information may be disclosed by the College for any purpose.

- name, address, phone number, email address
- dates/semesters of attendance
- enrollment status (full-time or part-time)
- major field of study
- degrees and awards received
- previous institution(s) attended
- participation in officially recognized sports and activities
- weight and height of athletic team members

Mercer County Community College forwards education records to other institutions that have requested the records and in which the student seeks or intends to enroll, or is already enrolled, so long as the disclosure is for purposes related to the student's enrollment.

Currently enrolled students may withhold disclosure of any category of information under FERPA. To withhold disclosure, students must send written notification to the Enrollment office within the first three weeks of the semester in which the withholding of Directory Information is to take effect. Request forms are available at the Enrollment Center.

The College assumes that failure on the part of any student to specifically request the withholding of categories of Directory Information indicates approval for disclosure.

Certification of Enrollment

Students needing official certification of their enrollment at MCCC may obtain it from the Student Records office during normal hours of operation (or by emailing registrar@mccc.edu) after the add/drop period for the requested term has ended.

Transcripts

Students can immediately access unofficial transcripts from "Student Self-Service" in the MyMercer portal up until two years after their last semester at the College. Thereafter, students must request official transcripts.

All requests for official transcripts must be submitted through the Parchment Storefront, accessed at www.mccc.edu/student_transcripts. Refunds are not issued for eTranscripts, due to the near real-time processing and delivery of orders.

Transcripts are not released if the student has outstanding financial obligations with the college.

Tuition and Fees

Tuition and fees are established by the Mercer County Community College Board of Trustees. The lowest tuition rates apply to residents of Mercer County, New Jersey. Different rates apply to out-of-county residents, out-of-state residents, and non-U.S. citizens. Tuition is charged on a per credit (or credit-equivalent) hour basis.

The College reserves the right to change tuition or fees at any time by action of the Board of Trustees. Current tuition rates and fees are available on the College website and at the Enrollment Center.

In addition to tuition and fees, students are responsible for purchasing books and other class supplies.

Residency Requirements

In-county tuition rates apply to students who have resided in New Jersey for 12 months and maintain a permanent residence in Mercer County. The College recognizes Mercer County students in active military service as residents of the county.

Students who are not citizens or permanent residents of the United States are charged out-of-state tuition and fees unless they meet certain legal guidelines.

To appeal residency status, contact the Enrollment office.

Tuition Support For Out of County Residents

New Jersey Chargeback Program

New Jersey residents who live outside of Mercer County and wish to attend MCCC can apply for chargeback tuition support. Chargeback enables a student to pay in-county tuition rates. The difference in tuition will be paid by the student's home county.

Chargeback requests may be approved by the home county for the following reasons:

- The county's community college does not offer the student's chosen program or course.
- The county's community college does not have space available in the chosen program or course.

To apply for and be awarded a chargeback, the student must do the following:

- Obtain a chargeback form from the MCCC Enrollment office.
- Complete the form and take it to the home-county community college (if there is one) for approval.
- Submit the form to the county Treasurer in the home county for approval.
- Bring the completed and approved form to MCCC's Enrollment or Student Accounts offices prior to the first day of classes.

Once approved, chargeback eligibility will not be lost if the student's home county community college establishes the same program in which the student already is enrolled at Mercer. Nor will eligibility be lost if space becomes available at that college after the student was earlier denied registration there. Eligibility may be lost, however, if the student changes to an MCCC program also offered at their home county community college.

Students who are unable to obtain chargeback assistance from their home county may still attend Mercer but must pay out-of-county tuition rates. Out-of-state students are not eligible for chargeback assistance, and chargeback assistance does not apply to foundation courses.

Program-Sharing Agreement

Mercer and Bucks County residents can enroll in, at a reasonable cost, academic programs not offered at their home county community college. A program-sharing agreement between Mercer County Community College and Bucks County Community College enables students to take basic courses at their home institution and specialized courses to earn their degree at the other college. Students are charged out-of-county instead of out-of-state rates.

Fees

College Fee

The college fee supports student activities, athletics, student publications, identification cards, and other college expenses that benefit students.

Technology Fee

The technology fee helps to offset the cost of college technological resources that support students' learning and related services.

Registration Fees

A registration fee is charged to all credit students each semester to offset the College's registration system expenses.

Course Fees

In addition to tuition, most courses with laboratory, studio, or clinical components and/or open lab support have special fees which cover extra costs of equipment, supplies, or instruction.

A listing of current course fees may be obtained at the Enrollment Center on each campus.

Flight Training Fees

Fees for MCCC's Aviation Flight Technology A.A.S. degree program vary depending upon program coursework required towards certification and licensing, and are subject to change without notice. Specifics are available from the Aviation program director in the Business, Technology, and Professional Studies division.

complete content at www.mccc.edu/catalog

Payment of Financial Obligations

All tuition and fees are due at the time of registration. Students are responsible for obtaining the necessary funds before registering, or for making payment plan arrangements and/or applying for tuition waivers (see below). Additional payment assistance may be sought through the Financial Aid office.

Payments may be made online by credit card, or in person by check or cash.

No student will be enrolled, graduated, or cleared to receive an academic transcript until they have fully paid all college accounts or have made satisfactory arrangements with the Student Accounts office.

Payment Plans

Flexible payment plans are available for all semesters. Options and further details may be obtained at the Student Accounts office on either the West Windsor or James Kerney campus or on the college website.

Fines

Fines are charged for overdue library books (paid at the Library front desk), parking violations (paid at the Student Accounts office), and misuse of lockers (paid at the Security office).

Additional information can be found in the "Statement of Student Rights and Responsibilities" available at the Student Activities office.

Refund Policy

Deadlines for course refund eligibility differ according to term length, as follows:

- 14-week terms: Full refunds are available for classes dropped within the first seven days of the associated term start date (NOT the class start date).
- Terms shorter than 14 weeks: Full refunds are available for classes dropped within the first two days of the associated term start date (NOT the class start date).

A course dropped anytime after its applicable refund eligibility period will be processed as a withdrawal. (See withdrawal information, page 26.) No refund of tuition or fees will be made to a student who is withdrawn from a course by an instructor for non-attendance or who has been dismissed from the college for cause.

Please be aware that dropped or withdrawn classes can cause adjustments to financial aid awards, which may result in the student owing an account balance.

Tuition Waivers

Pursuant to New Jersey law, certain persons who otherwise meet course requirements are permitted to enroll in credit classes at MCCC without payment of tuition, on a space-available basis, provided tuition-paying students constitute the minimum number required to offer the class. All students are required to pay for books, course materials, and fees in excess of tuition.

Students may not apply a waiver to and will not be reimbursed for any course registration previously paid.

National Guard

National Guard members who have completed Initial Active Duty Training and are members in good standing, or the children or surviving spouse of a member killed in the performance of their duty, may enroll for up to 15 credits per semester with tuition waived provided they:

- have submitted a Free Application for Federal Student Aid (FAFSA) for all state and federal financial aid for which they may be eligible;
- have enrolled in a program of study and are in good academic standing.

(See page 25 for associated financial aid application requirements.)

Volunteer First Responders

Active volunteer fire, first aid, or rescue squad members in good standing, or their dependent children and spouses, may enroll in courses with a maximum $600 in tuition waived annually, not to exceed $2,400 for the member, children and spouse over a four-year period, provided they:

- reside in a municipality that has agreed by the enactment of a resolution to participate in the program;
- maintain a 2.00 grade point average throughout the program;
- execute an agreement to continue service as a volunteer for a period of at least four years.

Local fire companies and rescue squads can provide additional information.

Unemployment

Persons who are presently unemployed or have been seeking full-time employment during the past two years may be eligible to enroll in classes, with tuition waived, on a space-available basis. College fees in excess of tuition must be paid at the time of registration. Expenses for textbooks and other class materials are also the student's responsibility.

Students must have submitted a FAFSA for all state and federal financial aid for which they may be eligible. Forms and additional information may be found at your local unemployment offices.

Senior Citizens

Mercer County residents aged 65 or older are eligible to enroll in classes, with tuition waived, on a space-available basis after paying students have registered. College fees in excess of tuition must be paid at the time of registration. Expenses for textbooks and other class materials similarly are the student's responsibility.

Residents of New Jersey counties other than Mercer who are 65 or older may enroll in classes on a space-available basis, paying the College's in-county tuition rate plus applicable fees.

Eligible students must register in person, with proof of age, at either the West Windsor or James Kerney campus. Contact the Enrollment office (for credit courses) and Workforce Training (noncredit) for further details.

Financial Aid

The federal government, the state of New Jersey, and Mercer County Community College offer eligible students a range of financial aid opportunities. A student or applicant wishing to be considered for financial aid should apply as early as possible. This can be done even before completing an MCCC admission application.

Most student financial aid is provided in the form of federal- and state-funded grant programs. This money is specifically awarded for education-related expenses including tuition, fees, books, and indirect costs such as living expenses and transportation. Eligibility depends upon financial need.

Specific financial aid programs along with eligibility requirements and application instructions (effective at time of publication) are outlined on the sources page. Visit the MCCC Financial Aid webpage for the most up to date information.

Surplus Financial Aid

Accepted Financial Aid from all sources is automatically applied to a student's bill to cover tuition and fees. If the sum of all payments made is greater than the students charges, the student will see a negative balance on the account summary. For a period of time prior to and during each semester, students with these surplus funds may use them in the College Bookstore for textbooks and other supplies needed for classes (up to a $1200 maximum each semester).

Any surplus funds not used in the bookstore may be mailed to students in the form of a check approximately halfway through the semester. Students expecting a refund check are encouraged to keep their mailing address up to date with the Registrars Office. The College is not able to provide a specific timeframe for the generation, or the mailing of any individual students refund check, but information pertaining to a refund check is available in each student's portal once a check has been issued.

Summer Financial Aid

Depending on when a student's financial aid award is packaged, students may or may not see federal aid available for the Summer Session. Students wishing to take summer classes may be eligible for federal financial aid even if they do not have a summer term on their award letter. Information about Summer financial aid is available on the Financial Aid webpage prior to the start of the summer term.



How to Apply

To be considered for all federal, state and MCCC financial aid, students must complete the **Free Application for Federal Student Aid (FAFSA)** online at www.studentaid.gov. The FAFSA must be submitted each year, and becomes available online each year on October 1 for the upcoming school year. The federal school code for MCCC is **002641**, and applicants must include MCCC on their list of schools.

Students who do not meet the eligibility requirements to complete a FAFSA may be able to apply for New Jersey state aid by completing the HESAA Alternative Application.

To ensure that financial aid is packaged before tuition and fees are due, applications and supporting documents should be submitted before April 15 for the full academic year or the Fall semester, and before February 15 for the Spring semester only. Students who submit applications after these dates should be prepared to pay semester tuition and fees themselves with the possibility of receiving financial aid after the semester begins. If eligible for aid, the student will receive an appropriate refund.

After submitting the FAFSA, students are expected to monitor the Financial Aid Self-Service section of their MyMercer portal and their MCCC email account for updates. Students may be required to submit additional documents or information to the College's Financial Aid Office to determine their eligibility once the FAFSA has been received.

General Eligibility Requirements

Federal Aid

For federal financial aid eligibility, students must:

- be United States citizens or eligible noncitizens;
- be accepted in a program of study leading to a degree or certificate;
- possess a high school diploma or state-recognized equivalent such as a General Educational Development (GED) certificate;
- not be in default status on a student loan or owe a refund on any Title IV federal aid program;
- maintain satisfactory academic progress;
- attempt a course a maximum of two times

State Aid

To be eligible for financial aid from the state of New Jersey, students must comply with the general eligibility requirements and also must:

- Have resided in New Jersey for at least one year;
- enroll for at least 6 credits;
- demonstrate financial need according to the state's need analysis system.
- not posess a prior college degree.

DACA Students

Applicants must:

- complete the HESAA Alternative Application at hesaa.org; and
- have attended a New Jersey high school for at least three years; and
- have graduated from a New Jersey high school or received a GED in New Jersey; and
- complete a Non-Resident Affidavit;
- if male, be registered for Selective Service;
- be enrolled for at least 6 credits.

Academic Requirements

Financial aid is awarded only to students who have declared a major in an approved degree or certificate program and who are making Satisfactory Academic Progress (SAP). Students who fail to meet all of the prescribed standards for SAP will be placed on SAP Warning for one semester. Students who meet the terms of SAP Warning will be placed on probation and will continue to be eligible for financial aid. Students who do not meet the terms of SAP Warning will be ineligible for financial aid.

Applicants denied financial aid due to unsatisfactory academic progress have the right to appeal for reinstatement of eligibility, explaining any relevant extenuating circumstances. Appeals must be completed with a Academic Advisor who will subsequently submit the appeal along with relevant supporting documents to the Financial Aid office. The SAP Committee will review the appeal and notify the student by email once a decision has been made.

Students failing SAP or whose appeals have been denied may work towards once again meeting SAP standards by enrolling at their own expense and completing all courses attempted. Students whose appeals are approved will be placed on probation.

For any semester in which a student is on SAP Warning or probation, they must earn a minimum term GPA of 2.00 and must not receive any failures (F), withdrawals (W), incompletes (I), or "no credit" (NC) grades of any kind.

Federal regulations permit financial aid to be awarded for no more than 30 semester hours of noncredit remedial coursework. Once attempted, no additional remedial courses will qualify for financial aid. English as a Second Language (ESL) courses are exempt from the remedial course limit.

Academic eligibility for all New Jersey financial aid programs is governed by the same standards of progress described above.

The chart below outlines the *minimum* standards of satisfactory academic progress to receive financial aid at Mercer County Community College.

Minimum Standards of Progress to Qualify for Financial Aid

Cumulative Credits Attempted	Completion Rate	Cumulative GPA
0 to 8	00 %	0.00
9 to 19	50 %	1.60
20 to 29	50 %	1.70
30 to 39	60 %	1.80
40 to 47	60 %	1.90
48 or more	67 %	2.00



complete content at www.mccc.edu/catalog

Special Circumstances

Federal financial aid is based on a formula created by the U.S. Department of Education to determine a student's Student Aid Index (SAI). The FAFSA uses prior-prior year income information to determine SAI and eligibility for federal financial aid. After filing the FAFSA, some students realize their SAI may not accurately reflect their current financial situation due to extenuating circumstances that have led to a significant decrease in household income or a significant increase in household expenses.

The federal government allows students to request that the Financial Aid office review these extenuating circumstances to see if they warrant an adjustment of the information determining the student's SAI. Circumstances that may warrant an adjustment include (but are not limited to) loss/change of employment, divorce/separation, death of a parent/spouse, disability of student/parent/spouse, and loss of benefits.

Students who think they may qualify for a Special Circumstances Review should contact the Financial Aid office.

Other Funding Sources

Work-Study on Campus

The Federal Work-Study Program is a federally funded program administered by MCCC to promote access to on-campus employment to help offset educational expenses. Students may work up to 10 to 15 hours per week during Fall and Spring semesters and must be enrolled at least half-time per semester. If program funds are available, students may also work during Summer terms. Students interested in participating should email seo@mccc.edu.

MCCC Scholarships

The MCCC Foundation, civic groups, professional societies, local corporations, and generous individuals support an array of student scholarships awarded for both the Fall and Spring semesters. Recipients are recognized at annual ceremonies – continuing students at the annual Scholarship reception, graduating students at the Academic Excelence Ceremony.

More information on MCCC-sourced scholarships is available at www.mccc.edu/scholarships. Students may apply for one or more by submitting a single application online at www.mccc.edu/apply4awards. Applications for continuing students are accepted February 1 through October 31; applications for graduating students are accepted February 1 until April 1.

Note: Some scholarships require students to complete the FAFSA before they can be considered for an award, regardless of their financial standing.

Federal and State Aid

Listings of federal and state financial aid programs along with eligibility requirements and application instructions (effective at time of publication) appear on pages 23 and 24. Visit the MCCC Financial Aid website for the most up-to-date information.

MCCC FOUNDATION
SCHOLARSHIPS
YOU MAY BE ELIGIBLE!

MERCER
COUNTY COMMUNITY COLLEGE

Scholarships are payments to support a student's education that **do not need to be repaid**.

Mercer County Community College and the MCCC Foundation make more than $950,000 in scholarship support available annually in a wide variety of academic areas. Award amounts vary – **$11,000 the largest, $1,500 the average.**

Whether you are a new, continuing or graduating student, **YOU MAY BE ELIGIBLE** for one or more of our **300+ scholarship opportunities**. *Some do not even require completion of the FAFSA!*

CONTACT US FOR MORE INFORMATION OR ASSISTANCE WITH YOUR APPLICATION

OFFICE OF COLLEGE ADVANCEMENT
Phone | 609.570.3239
Email | scholarships@mccc.edu
More Information: www.mccc.edu/scholarships
To Apply: www.mccc.edu/apply4awards

Mercer County Community College (MCCC) does not discriminate on the basis of race, color, religion, creed, national or ethnic origin, age, pregnancy, disability, sex, or any other protected status in the administration of any of its services, educational programs and activities or in its hiring or employment practices.

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Federal Aid Programs

Program	Special Eligibility Requirements	Award Amounts	Program Information	How to Apply
Federal Pell Grants	Applicants must: • Demonstrate financial need • Take at least 1 credit of program-required coursework	Up to $6345 per year	Students who have earned B.A. or B.S. degrees not eligible	• File the Free Application for Federal Student Aid (FAFSA), listing MCCC as a college you plan to attend • Submit any other required information/ documents to the MCCC Financial Aid office
Federal Supplemental Education Opportunity Grant (SEOG)	Applicants must: • Demonstrate financial need • Apply on or before Apr. 15 (Sept. 15 for Spring only)	$400-$800 per year at MCCC	Priority to students with the lowest SAI who are eligible for Pell	
Federal Work Study Program (FWS)	Applicants must: • Demonstrate financial need • Take at least 6 credits of program-required coursework	Determined by hourly rate of pay and number of hours per week, generally from $800 to $3000 per year	Employment is on- or off-campus; students may work a maximum of 15 hours per week when classes are in session depending upon FWS budget	

William D. Ford Direct Loan Program

Program	Special Eligibility Requirements	Award Amounts	Program Information	How to Apply
Federal Direct Subsidized Stafford Loan	Applicants must: • Take at least 6 credits of program-required coursework • Demonstrate unmet financial need	Up to • $3500 (0-29 completed credits) • $4500 (30 or more completed credits)	• Repayment begins six months after leaving school • Interest rates vary by year	• File the Free Application for Federal Student Aid (FAFSA), listing MCCC as a college you plan to attend. • Accept desired loan(s) through MyMercer student portal • Complete Master Promissory Note and Entrance Counseling at studentaid.gov
Federal Direct Unsubsidized Stafford Loan	Applicants must: • Take at least 6 credits of program-required coursework	Up to • $6000 (0-29 completed credits) • $6000 (30 or more completed credits) * Combined Stafford Loan totals may not exceed stated limit	• Repayment of interest begins immediately unless lender agrees to accrue it • Interest rates vary by year	

Other Sources

Program	Award Amounts and Eligibility	Program Information	How to Apply
Scholarship and loan programs from foundations, companies, unions, clubs, associations, high schools	Vary by program	Libraries, high schools, guidance offices, scholarship publications	Varies by program

complete content at www.mccc.edu/catalog

New Jersey State Aid Programs

Program	Special Eligibility Requirements	Award Amounts	Program Information	How to Apply
NJ STARS (Student Tuition Assistance Reward Scholarship)	Applicants must: • Rank in the top 15 percent of their high school class at the end of their junior or senior year • Demonstrate college readiness • Enroll in at least 12 credits	Tuition for up to 18 credits per semester, up to five semesters	• For high-achieving New Jersey high school students; not based on financial need	• File the FAFSA • Complete all requirements on state portal • Have your high school mail official transcript with class rank to Financial Aid office
Tuition Aid Grant (TAG)	See NJ state aid requirements under the "General Eligibility Requirements" section (page 20)	Up to $3,120 per year at MCCC	• Students who have earned degrees are not eligible at MCCC • Students may receive five semesters of funding; EOF-funded students may receive eight semesters	• File the FAFSA • Complete all requirements on state portal
Community College Opportunity Grant (CCOG)	Applicants must: • Have a household AGI between $0 and $65,000 • Enroll in at least 6 credits	Tuition and eligible fees for up to 18 credits	• Students may receive up to five semesters of funding • Students with any prior degree ineligible	• File the FAFSA • Complete all requirements on state portal
Educational Opportunity Fund Grant (EOF)	Applicants must: • Be full-time students • Be historically disadvantaged both educationally and economically	Up to $1,600 per year	• Special counseling services available • Some students may be allowed part-time enrollment with EOF director's approval	• File the FAFSA or HESAA Alternative Application (if applicable) • Complete all requirements on state portal • Submit an application to the EOF office

Mercer County Community College Programs

Program	Special Eligibility Requirements	Award Amounts	Program Information	How to Apply
Private and Foundation Scholarship	Applicants must: • Demonstrate merit and/or need • Complete the general online application	$500-$11,000 per year at MCCC	Scholarship funding is donated by businesses, organizations, and individuals	• File the Free Application for Federal Student Aid (FAFSA) • Submit online AwardSpring application at www.mccc.edu/apply4awards
Foundation Athletic Scholarship	Applicants must: • Be outstanding athletes	$100 to full tuition and fees	Must be recommended by MCCC coach or athletic director	Contact the MCCC Athletics Department (email: athlete@mccc.edu)

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Military and Veterans Benefits

Veterans and eligible dependents wishing to apply U.S. Department of Veterans Affairs GI Bill® education benefits or Military Tuition Assistance should contact the MCCC Military and Veterans Services office. New students should bring their original Discharge Document (DD form 214 / copy 4) or a Notice of Basic Eligibility (NOBE).

The staff will assist veterans in completing necessary paperwork required each semester. Alternatively, the application may be completed online at www.gibill.va.gov. If filing online, print and bring a copy of your application to the Military and Veterans Services office.

Initial application for benefits should be completed as far as possible in advance of registration for classes. Returning students must submit a copy of their class schedules to the Military and Veterans Services office for certification with the Veterans Administration. Any changes in enrollment status or change of major must be reported to the Military and Veterans Services office as soon as they occur.

- **Veterans Benefits and Transition Act of 2018 - Chapter 31**
- **Post 9-11 GI Bill® - Chapter 33**

As part of the Veterans Benefits and Transition Act of 2018, any individual entitled to educational assistance under Chapter 31, Veteran Readiness and Employment (VRE), or Chapter 33 of the Post 9-11 GI Bill®, will be permitted to attend and participate in any course for which enrolled during the period beginning on the date on which the individual provides the MCCC Office of Military and Veterans Services a certificate of eligibility for entitlement to educational assistance under Chapter 31 or 33.

Note that a "certificate of eligibility" can also include a "Statement of Benefits" obtained from the Department of Veterans Affairs (VA) website – eBenefits – or confirmation from a Chapter 31 VRE Counselor and ending on the earlier of the following dates:

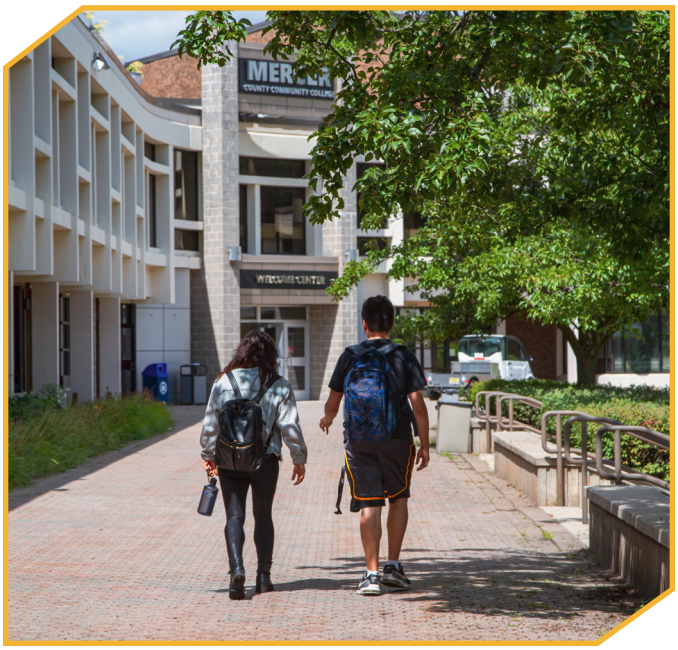
- the date on which payment from the VA is made to MCCC
- 90 days after the date the institution certified tuition and fees following the receipt of the certificate of eligibility

MCCC will not impose any penalty -- including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds -- on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to the delayed disbursement funding from the VA under Chapter 31 or 33.

Covered individuals must provide the following documents to the MCCC Office of Military and Veterans Services prior to the first day of class:

- a VA Certificate of Eligibility for entitlement to education benefits
- a properly completed *Request for Military & Veteran Certification Form*

Any questions should be submitted to the MCCC Office of Military and Veterans Services at vets@mccc.edu



New Jersey National Guard Tuition Waiver Program

New applicants for the National Guard Tuition Waiver Program should complete their paperwork six to eight weeks before registration. All National Guard students, both new and returning, must submit an original Commander's Letter of Certification (NJDMAVA form 621-2-R15Nov00) each time they register for courses. This letter must be dated no more than 60 days prior to registering for courses – up to a maximum of 16 credits per semester. For any additional credits, Guard personnel must pay full tuition and fees.

All applicants, new and returning, must submit a Free Application for Federal Student Aid (FAFSA) annually. In addition, National Guard students must complete and submit an application to MCCC and take the college skills placement test.

All veterans and National Guard students may submit appropriate documents to be evaluated for the possible awarding of credits for military training. Contact the Military and Veterans Services office for additional information.

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Academic Policies and Regulations

Class Attendance

Regulations

Mercer County Community College does not have a "cut system." Students are expected to attend all classes of every course on their schedules. Only illness or serious personal matters may be considered adequate reasons for absence.

It is the prerogative of the instructor to excuse absences for valid reasons, provided the student will be able to fulfill all course requirements.

Students in the Medical Laboratory Technology and Radiography programs must arrange with the program coordinator to make up all missed laboratory and clinical hours. Students in nursing courses are required to attend all lecture, recitation, college laboratory, and clinical laboratory sessions.

The College is required by law to maintain attendance reports on students who are funded by Veterans benefits, Social Security payments and various other federal, state, or private scholarship programs.

Attendance Verification and Progress Grades

Student performance in classes is monitored throughout the semester. If a student's attendance has been infrequent or performance unsatisfactory, he or she may receive notification in the mail. At any time, the instructor may withdraw the student from class as a result of insufficient attendance.

Students who receive an unsatisfactory progress report are encouraged to see their instructor, advisor, and/or counselor and to take the steps necessary to complete the course successfully by the end of the semester.

Withdrawal from Courses

To receive a W grade for any course, a student should consult with the course instructor or an appropriate division representative and then withdraw officially before two-thirds of the course has been completed by submitting a withdrawal form to the Enrollment office. Withdrawal after this point results in a grade other than W (usually F) unless the Registrar determines that the student was unable to continue due to extraordinary circumstances beyond the student's control.

At any time before two-thirds of the course has been completed, the instructor may also withdraw, with a WI grade, any student who has been absent excessively. A student withdrawn by the instructor for excessive absence will not be entitled to any refund of tuition or fees. The student may appeal this action.

It is the responsibility of students sponsored or receiving financial aid to report any change of status (e.g., full-time to part-time) to the sponsoring agency. The College has the same responsibility. Some agencies adjust the amount of benefits; others may cancel the benefits entirely.

Withdrawal from a course does not necessarily release the student from any academic integrity violation consequences.

Repeating Courses

Students may repeat courses. The most recent grade is the student's official grade for the course unless the grade is S, NC, X, W, WI, or WA. Only the most recent grade will be used in QPA calculations, although any prior grade will also appear on the transcript. A student who wishes to take a course for the third (or more) time is required to obtain formal, written approval from the appropriate division dean unless otherwise specified.

Auditing a Course

A student who wishes to attend a class regularly but does not wish to receive a grade or credit for the course may request permission to register as an auditor. To receive permission to audit, the student should meet all admission requirements expected of students enrolled in the course, including any course prerequisites and corequisites.

Audit students must pay the same tuition and fees for the entire course as students receiving credit. Attendance requirements for auditors are determined by the course instructor. Intention to audit a course should be declared at registration and to the instructor in the first class session. The appropriate form must be completed and submitted during registration.

Changing from an audit to a credit basis during the semester is not permitted. Credit for audited courses cannot be established at a later date except by enrolling in the course for credit in a subsequent semester and satisfying all course requirements.



Independent Study

In addition to earning credits through formal courses, students may earn credit through approved independent study. Independent study is available for many but not all MCCC courses or for a specific plan of study in a course discipline.

Students plan specific activities and goals with the help of a cooperating faculty member and receive approval for their plans from the applicable academic division Dean. The Independent Study Agreement Form is available from academic division offices. The student is responsible for bringing the approved form to the Enrollment office for official enrollment purposes.

In general, independent study courses should correspond to standard semester lengths so that registration and grading for them can be accomplished within a designated registration period. Should the student take longer than a semester to complete the course, the student will be given an "I" grade when semester grades are processed, subject to change upon completion of the course.

The following guidelines are applicable:

- A student must have completed 15 credits with a minimum quality point average (QPA) of 2.75 to be considered eligible for independent study.
- A student may select no more than one course by independent study during a semester.
- A maximum of four courses may be taken by independent study in degree programs.
- Courses by independent study must be sponsored by full-time members of the faculty whenever possible.
- Students may not select more than two courses by independent study under the sponsorship of the same faculty member.

Permission for any exceptions to the above guidelines may be obtained from the responsible academic division Dean.



Readmission

A student who has not attended Mercer for two or more years must complete the admission process again. If returning to a degree or certificate program earlier pursued, all requirements listed in the academic catalog in effect at the time of readmission to the program must be completed. For more information, contact the Enrollment office.

Academic Restart Program

Students who have had a previous academic experience at Mercer and have a QPA of less than 2.0 may apply for an Academic Restart at any time after a period of non-enrollment of at least three (3) years.

If an Academic Restart is approved, all previous MCCC course credits and grades remain on the student's transcript, but courses taken prior to the period of non-enrollment are no longer counted in the student's quality point average and the QPA will be reset at zero.

Up to four courses in which credit was earned with a grade of "C" or better prior to the period of non-enrollment may be counted toward graduation requirements and included in the QPA.

A suitable message on the transcript will designate the point at which the Academic Restart became effective. Students are allowed only one Academic Restart. Once approved, it is irrevocable. Contact the Student Records office or the student advocate in any academic division for further details.

Change of Program/Major

A student wishing to change from one program (major) to another must initiate the procedure with their program advisor or academic advisor. Approval for the change must be obtained from the academic division or academic advisor responsible for the program to which the student wants admittance. The faculty or staff member will submit the form to the Student Records office. A student who is a veteran must also submit a change of program form to the Military and Veterans Services office.

Requests received during a semester will not take effect until the next semester. For example, the new major for a change request received during the Spring semester will activate starting with the following Summer term.

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Grading System

Grade Interpretation

Grade reports are accessible via the MyMercer student portal (www.mccc.edu/mymercer) at the conclusion of each semester. Students may access their grades online, privately and securely, at any time.

Grades earned are determined by instructors at the end of each semester or term and are recorded on the student's transcript which is maintained by the Student Records office.

Quality Point Average

A student's quality point average (QPA) for each semester is computed by:

- multiplying the quality point value of each grade by the number of course credits designated;
- adding the results of these computations;
- dividing this total by the number of credits attempted during the semester.

Letter grades have the following quality point values:

A=4	B=3	C= 2	Other grades do not count in the quality point average, nor do any grades for courses numbered below 100.
A-=3.7	B- = 2.7	D = 1	
B+= 3.4	C+ = 2.4	F = 0	

Grade Appeals

Procedures for appealing any course grade or related academic action or decision that affects a student's standing at the college are outlined in the Student Handbook.

Grades		Nominal %	QPA (Quality Point Average)
A	Superior Achievement	93-100	4.0
A-		90-92	3.7
B+		87-89	3.4
B	Above Average Achievement	83-86	3.0
B-		80-82	2.7
C+		77-79	2.4
C	Average Achievement	70-76	2.0
D	Minimally Passing	60-69	1.0
F	Academic Failure	0-59	0.0
S	Satisfactory (comparable to C or higher)	70-100	N/A
NC	No Credit	0-59	N/A
X	Audit — no evaluation		N/A
CR	Credit by examination or experience — no evaluation		N/A
W	Withdrawal (Student-initiated) — no evaluation		N/A
WI	Withdrawal (Instructor-initiated) — no evaluation		N/A
WA	Withdrawal (Administration-initiated) — no evaluation		N/A
WN	Withdrawal - Never Attended (Instructor-initiated) — no evaluation		N/A
Temporary Grades			
N	No grade reported by the instructor		N/A
I	Incomplete — no credit earned		N/A

"**I**" indicates that the instructor is affording extra time for a course grade to be earned. The amount of extra time is determined by the instructor, up to a maximum of 16 calendar weeks after grades are submitted. An "**I**" grade not resolved within 16 calendar weeks is changed to an **F** or **NC** grade, as appropriate to the course.

The table below outlines a sample computation.

Grades in courses transferred from another institution are not included in computing quality points or averages. Credits earned by examination or for prior experience are entered on the student's transcript but do not affect the quality point average.

Course			Credits Registered	Grade	Credits Attempted	Point Value	Quality Points
ENG	101	English Composition I	3	C+	3	2.4	7.2
PSY	101	Introduction to Psychology	3	A-	3	3.7	11.1
BIO	101	General Biology I	4	B	4	3	12.0
HIS	101	History of Western Civilization to 1648	3	W	—	—	—
HPE	110	Concepts of Health and Fitness	2	I	—	—	—
OST	109	Keyboarding for Computer Users	1	F	1	0	0
TOTALS:			16		11		30.3

Quality Point Average (QPA) = $\frac{\text{Quality Points}}{\text{Credits Attempted}} = \frac{30.3}{11} =$ **2.75**

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Academic Standing Policy

Good Standing

Each student begins his or her enrollment at Mercer on Good Standing, which provides no restrictions on his or her credit load beyond those contained in normal college policy. A student remains on Good Standing by passing the courses in which he or she enrolls each semester and by maintaining a satisfactory cumulative grade point average (GPA).

Academic Progress

The academic sanctions for failing to maintain satisfactory academic standards/progress may include warning, probation, continued probation, academic suspension, or dismissal. These sanctions will be imposed on students who either fail to earn sufficient grade points or who continue to withdraw excessively from classes.

More specifically, any student who has completed 12 or more semester hours with a cumulative grade point average below 2.0 (C average) or who has failed to earn at least 50 percent of all credits registered for on the official day of counting student enrollment for two or more consecutive semesters may have an academic sanction of warning, probation, continued probation, academic suspension, or dismissal.

Externally accredited programs may have slightly different academic progress standards, established by said external accreditation body. Please consult the academic progress section of each externally accredited program to determine progression policy. If you are uncertain if your academic program is externally accredited, contact your academic advisor or success coach.

A student placed on academic sanction or dismissal may appeal the action to the Academic Standing Committee.

Academic Standing

To remain in Good Standing and become eligible for graduation, the student must maintain a C average or a grade-point average of 2.0. Externally accredited programs may have different gradepoint average requirements for academic standing and/or graduation. Please consult the academic standing section of each externally accredited program to determine academic standing policy.

A student will be placed on academic probation if he/she earns a cumulative grade point average of less than 2.0, or below minimum cumulative grade-point average requirements for externally accredited programs.

Academic Sanctions

- If a student falls below a 2.0 GPA, they may be placed on academic warning or academic probation for the following semester. The number of credits will be restricted to 13 for academic warning and 10 for academic probation.
- If the student remains below a 2.0 GPA while on probation, they may be unable to receive financial aid and/or VA education benefits will be terminated. Students who are no longer eligible for financial aid or use of VA benefits may continue to attend school; however, they will be responsible for all costs. Some academic programs may dismiss the student from the program, although they may continue to take other classes at MCCC.
- If the student's cumulative GPA remains below 2.0 after the first semester of probation, they may be dismissed from the College. Dismissal requires a student to take a semester off and develop an approved individual Success Plan in consultation with an MCCC success coach before returning.
- If the student would like to re-enter the program, they must appeal the decision. Appeals are approved or denied by the Academic Standing Committee led by the Dean of Faculty. If the appeal is approved, the student may re-enter the program the following semester.

Student Academic Standing Criteria

Prior Status	Semester Credits Passed	Quality Point Average	New Status
Good Standing	Satisfactory	OK	Good Standing
		Low	Academic Warning
	Minimum	OK or Low	Academic Warning
	Below Minimum	OK	Academic Warning
		Low	Academic Probation
Academic Warning	Satisfactory	OK	Good Standing
		Low	Academic Warning
	Minimum	OK or Low	Academic Probation
	Below Minimum	OK or Low	Academic Probation
Academic Probation	Satisfactory	OK	Good Standing
		Low	Academic Warning
	Minimum	OK	Academic Probation
		Low	Academic Dismissal
	Below Minimum	OK or Low	Academic Dismissal
Academic Dismissal	one 14-week semester off		Academic Probation*

** upon approval of an Individual Success Plan by the Vice President for Academic and Student Affairs or designee*

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Degree Requirements

The College is authorized by the State of New Jersey to grant the Associate in Arts, Associate in Fine Arts, the Associate in Science, and the Associate in Applied Science degrees to regularly matriculated students upon successful completion of study. Each program contains a general education core consisting of courses in written and oral communication, mathematics, natural science, technology, humanities, and social science as well as required courses and elective courses.

Graduation Requirements

Students are responsible for ensuring that they have met all graduation requirements:

- The number of semester hours of credit as specified by the program (usually 60 to 66).
- At least 15 credits earned at Mercer County Community College, six of which must be from courses at the 200 level and in the student's major.
- A minimum quality point average of 2.00 for all work applied toward a degree or certificate. A minimum C grade is required in any degree or certificate course crucial to the major, as indicated in the catalog listing of the program.
- Successful completion of all academic and course requirements of a degree program as specified in the college catalog either in effect at the time of the application for graduation or in effect at the time of the student's original matriculation in the program, provided that not more than 10 academic years passed prior to the intended graduation date and the student has maintained continuous attendance.
- Satisfactory completion of all courses within 10 years of the date of intended graduation, except in allied health and flight technology programs with a time limit of five years. The academic division may, at its discretion, recertify courses taken outside of these time limits.
- Satisfactory completion of a minimum number of credit courses approved as General Education. In accordance with college standards, these minimum requirements are reflected in the catalog listing of each program:
  - 45 credits for the Associate in Arts degree
  - 30 credits for the Associate in Science degree
  - 21 credits for the Associate in Applied Science degree
  - 21 credits for the Associate in Fine Arts degree
  - 6 credits for credit-bearing certificates
- All elective courses must be selected from among the courses included in the designated category. A student may not elect a course below his or her placement level in a discipline. *It is essential that any questions about electives be reviewed with an advisor familiar with the program*.
- Satisfaction of all financial obligations to the College.
- Participation in graduation exercises is encouraged.

Academic Foundation Credits

English composition, reading, and mathematics courses below the 100 level prepare students to succeed in college-level programs (see page 14). To earn a degree, students must complete at least 60 credits in courses above this level.

Multiple Degrees

Students are permitted to earn multiple degrees by completing all requirements for each. Applying completed courses from one degree or certificate to fulfill requirements for another, however, requires approval from the Dean of the associated academic division.



General Education Policy

Mercer County Community College is committed to providing each student with an educational experience that is shaped by the best traditions of higher learning as it addresses the demands of the modern world. For all graduates of degree and credit-bearing certificate programs, this experience includes general education.

Approved general education courses are listed at www.mccc.edu/catalog/catalog_electives. Each degree and certificate program contains some courses from this list, either as specifically required courses or as electives to be chosen by the student consultation with his or her academic advisor.

The extent to which approved general education courses are required in the various degree and certificate programs is specified in the table below. These requirements may be met through general education courses specified in the design of the program, or through elective choices (from the approved list) afforded to the student in consultation with his or her advisor. These are the minimum requirements; as appropriate to the program, more general education courses may be required. Exceptions may be approved by the President when these requirements are inconsistent with external requirements for program accreditation or student transfer.

Consistent with State standards, there is greater emphasis on general education within Associate in Arts (A.A.) and Associate in Science (A.S.) transfer programs than within the more specialized Associate in Applied Science (A.A.S.), Associate in Fine Arts (A.F.A.), and Certificate of Proficiency programs. The complete MCCC General Education Policy, with detailed institutional learning goals and objectives, may be viewed at www.mccc.edu/gened.

Academic Program Requirements for General Education

General Education Goals (by category)	A.A. Degree	A.S. Degree		A.A.S. Degree A.F.A. Degree A.S. Nursing	Certificate
Goal 1: Communication - *Written and Oral* Communication in English	**9 credits** (must be 6 credits of Composition)	**6 credits** (must be 6 credits of Composition)		**6 credits** (must be 6 credits of Composition)	**3 credits** (must be 3 credits of Composition)
Goal 2: Mathematics - *Quantitative Knowledge and Skills* (3-8 credits)	**6 credits**	**9 credits**		**3 credits**	**3 credits**
Goal 3: Science - *Scientific Knowledge and Reasoning* (3-8 credits)					
Goal 4: Technology - *Technological Competency* (0-4 credits)					
Goal 5: Social Science - *Society and Human Behavior*	**6 credits**	**3 credits**	**3 credits**	**3 credits**	
Goal 6: Humanities - *Humanistic Perspective*	**6 credits**	**3 credits**			
Goal 7: History - *Historical Perspective*	**3 credits**	**--**		**--**	**--**
Goal 8: Diversity courses - *Diversity and Cultural Awareness*	**3 credits**				
Unassigned General Education	**--**	**6 credits**		**8 credits** **Note*	
TOTAL:	**33**	**30**		**20**	**6**

**Note – The 8 credits of Unassigned General Education must not exceed the category limits for the A.S. degree.*

Institutional Learning Goals and Objectives

Goal 1: Written and Oral Communication in English
Students will communicate effectively in both speech and writing.

Goal 2: Mathematics
Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

Goal 3: Science
Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.

Goal 4: Technology
Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Goal 5: Social Science
Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.

Goal 6: Humanities
Students will analyze works in the fields of art, music, or theater; literature; philosophy and/or religious studies; and/or will gain competence in the use of a foreign language.

Goal 7: History
Students will understand historical events and movements in World, Western, non-Western or American societies and assess their subsequent significance.

Goal 8: Diversity and Global Perspective
Students will understand the importance of a global perspective and culturally diverse peoples.

Goal 9: Ethical Reasoning and Action
Students will understand ethical frameworks, issues, and situations.

Goal 10: Information Literacy
Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college-level work.

Goal 11: Critical Thinking
Students will use critical thinking skills to understand, analyze, or apply information or solve problems.

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Graduation/Academic Honors

Commencement ceremonies take place each year in late May. Students who have graduated in the preceding Fall term or are expecting to complete their requirements in the Spring or Summer terms are welcomed to participate. Those completing their requirements in the Summer term must be within 6 credits of completing their final course requirements and be registered for them by the deadline.

MCCC automatically verifies graduation readiness for all students matriculated in a degree program. After the end of a semester, a final certification determining degree eligibility takes place.

Students can submit a graduation review request to have their progress reviewed. The submission deadline for review is one month prior to the end of the reporting term. Students who submit a request by the deadline and are missing requirements will be notified via email.

Students will be notified via email when their degree or certificate is confirmed. Questions may be directed to graduation@mccc.edu

Outstanding Scholastic Achievement

Academic Excellence and Recognition Ceremonies

Students are eligible for achievement awards in academic disciplines and programs. Awards for graduating students are presented at an academic excellence ceremony in May. Awards for continuing students are presented at a scholarship reception ceremony in the Fall. The donors of these awards enjoy meeting the student recipients at these events.

Graduation Honors

A candidate for graduation who earns a cumulative quality point average (QPA) of 3.50 to 3.79 graduates with Honors; one who earns a cumulative QPA of 3.80 to 3.89 graduates with High Honors; one who earns a cumulative QPA of 3.90 or higher graduates with Highest Honors. These honors citations are noted on the graduate's degree.

Academic Honor Lists

The President's Honor List and the Dean's Honor List are compiled each semester to recognize outstanding and superior scholastic achievement. These honors are recorded on the student's transcript.

Full-time students (12 credits or more) are considered for academic honors at the end of each Fall and Spring semester. To qualify for the President's Honor List, a student must have a 4.00 average. To qualify for the Dean's Honor List, a student must have a 3.20 quality point average or better, and no grades of D, F, or NC.

Honor Societies

Phi Theta Kappa, an international honor society founded in 1918 for community and junior colleges, has established the Alpha Theta Gamma chapter at Mercer County Community College. Students who meet strict academic requirements and are inducted into Phi Theta Kappa have opportunities in scholarship, leadership, service, and fellowship.

Alpha Mu Gamma, the national society for foreign languages, has established the Kappa Iota chapter at Mercer.





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Programs of Study

The academic programs offered by Mercer County Community College include transfer programs that prepare students for entry into baccalaureate programs, and career programs that prepare students for immediate employment after graduation.

The terms "transfer" or "career" describe the primary objective of the program. Many transfer graduates are employed upon graduation. Many graduates of career programs successfully transfer to four-year colleges, with many of their MCCC credits being accepted.

General Education

Because Mercer is committed to promoting intellectual development, aesthetic appreciation, and cultural awareness, every program of study includes a general education component. General education focuses on reading analytically, communicating ideas clearly, solving problems, and developing a broad base of knowledge. Students develop analytical, synthetic/creative, and evaluative thinking; scientific reasoning; artistic response and expression; historical consciousness; cultural awareness; and sensitivity to the contemporary world.

For more specifics concerning Mercer's general education policy, see page 31. Applicable courses are listed at www.mccc.edu/catalog/catalog_electives.

Advisory Commissions

Many of Mercer's academic programs benefit from advisory commissions that embody appropriate professional backgrounds and expertise. Members provide guidance and serve as a communication link between the College and the community, including professional, occupational, or special service groups. They acquaint the community with available college resources and the College with community needs. In addition to providing advice, commission members identify technical information, equipment, and facilities necessary to establish programs and resources or to modify existing ones to remain current.

Degree and Certificate Programs

Transfer Programs (A.A., A.F.A., A.S.)

Transfer degree (A.A., A.F.A., or A.S.) programs enable students to enter the third year of baccalaureate study at four-year colleges. The largest student enrollments in transfer degree programs are in Liberal Arts, Business Administration, Education, Criminal Justice, and Nursing. Other transfer degree programs range from Architecture, Communication and Visual Arts to Culinology, Computer Science and Plant Science.

For many students, the transfer experience is made easier by "guaranteed transfer admission" and "program articulation" agreements between Mercer and other colleges. See page 16 for further details concerning transfer opportunities.

Career Programs (A.A.S.)

Career degree (A.A.S.) programs are designed to prepare graduates for entry-level employment in an occupation which requires both theoretical knowledge and practical skills. Mercer has A.A.S. programs as varied as Accounting, Aviation, Advanced Manufacturing Technology, Chef Apprenticeship, Radiography, Ornamental Horticulture, Microcomputer Systems Administration, Television, Funeral Service, and Digital Media Arts.

Certain programs – Entertainment Technology and Paralegal, for example – function both as transfer degree and career degree programs, with many graduates transferring to four-year programs and others finding employment. Many employed students use career programs to gain advanced positions in their chosen field or to change careers. Some other A.A.S. programs also provide a basis for transfer to four-year colleges; a student may lose credits, however, if he or she transfers to an unrelated program of study.

Certificate of Proficiency Programs

Mercer offers a number of certificate programs that provide training for specialized occupations. Certificate programs usually require 18 to 36 credits or their equivalent.

Full-time students can complete some certificate programs in one year, while part-time students take longer. Some certificate programs take three years to complete and are available only in the evening.

The Funeral Service certificate program provides training toward completion of the education requirements for professional licensure as a funeral director and requires an associate degree or equivalent for admission.

Other Non-Degree Choices

Many students take classes at Mercer without being enrolled in a particular degree or certificate program, categorized as follows:

- **Other College** - Students take courses at Mercer to fulfill program requirements at another college.
- **"Jump Start" College** - Qualified high school students earn college credits.
- **Personal Development** - Students take courses for other reasons. Advisors at each campus help non-degree students select courses.

Special Programs/Options

Honors Program

The Mercer Honors Program is an enriched college experience for highly motivated and intellectually curious students with a commitment to cultivating complex understanding and innovation in their academic work. It features smaller discussion-based seminar classes and creative laboratory experiences.

Through honors coursework, students join a community of engaged scholars. The Mercer Honors Program is not a separate college track or major. Students matriculate into an MCCC degree program and may take one or more honors courses each semester toward fulfillment of their general education and program requirements.

Students have access to a range of honors courses in biology, business and technology, chemistry, composition, humanities, mathematics, and social sciences.

For more information, visit www.mccc.edu/honors.



English as a Second Language

MCCC offers a comprehensive ESL credit program for students who are learning English as a foreign/second language. The credit courses emphasize speaking, listening, reading / critical thinking, academic writing, and grammar. Students who successfully complete the program are awarded an English Language Achievement Certificate.

Mercer County Community College also offers non-credit preparatory ESL courses through Adult Education at both campuses. An online TOEFL Prep Course is available for international students wishing to take the TOEFL iBT (Internet-based test).

Cooperative Education

Cooperative education integrates textbook and classroom learning with work experience. Several academic programs offer cooperative education components, affording many advantages to students able to earn an income while attending college and earn college credits for their work experiences. In addition, many graduates with such prior experience find employment easier to obtain.

A successful co-op experience requires careful delineation of learning objectives and employer willingness to support them. The College assists students in defining objectives and obtaining co-op positions.

Students interested in this learning approach should consult their academic advisor to determine if cooperative education is available in their particular program, and to obtain further details.



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Governance

Boards and Commissions

Mercer County Community College operates within New Jersey's higher education system of county community colleges and four-year public and independent colleges and universities. The College is an autonomous institution with its own Board of Trustees.

The Board of Trustees of the College consists of 13 members. Eight trustees are appointed by Mercer County elected officials, two trustees are appointed by the Governor of New Jersey and one seat is held by the Mercer County Superintendent of Schools. Two trustees serve ex-officio: one is an elected representative of the alumni, the other is the President of the College, who is Secretary to the Board.

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MCCC Foundation

The MCCC Foundation is an independent nonprofit corporation whose purpose is to establish and carry out enrichment activities that support the mission of the College and the community it serves. The Foundation's volunteer board members are college ambassadors who seek to develop community understanding and support of the College, its programs and services. They help to identify, screen and cultivate contributors, and to solicit donations.

For further information, visit www.mccc.edu/foundation, phone (609) 570-3519, or e-mail foundation@mccc.edu. Donations may be sent to: MCCC Foundation, 1200 Old Trenton Road, West Windsor, NJ, 08550. For online giving opportunities, visit www.mccc.edu/give.

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Jack Struzynski - Maintenance I (Warehouse Shipping & Receiving) Office Services
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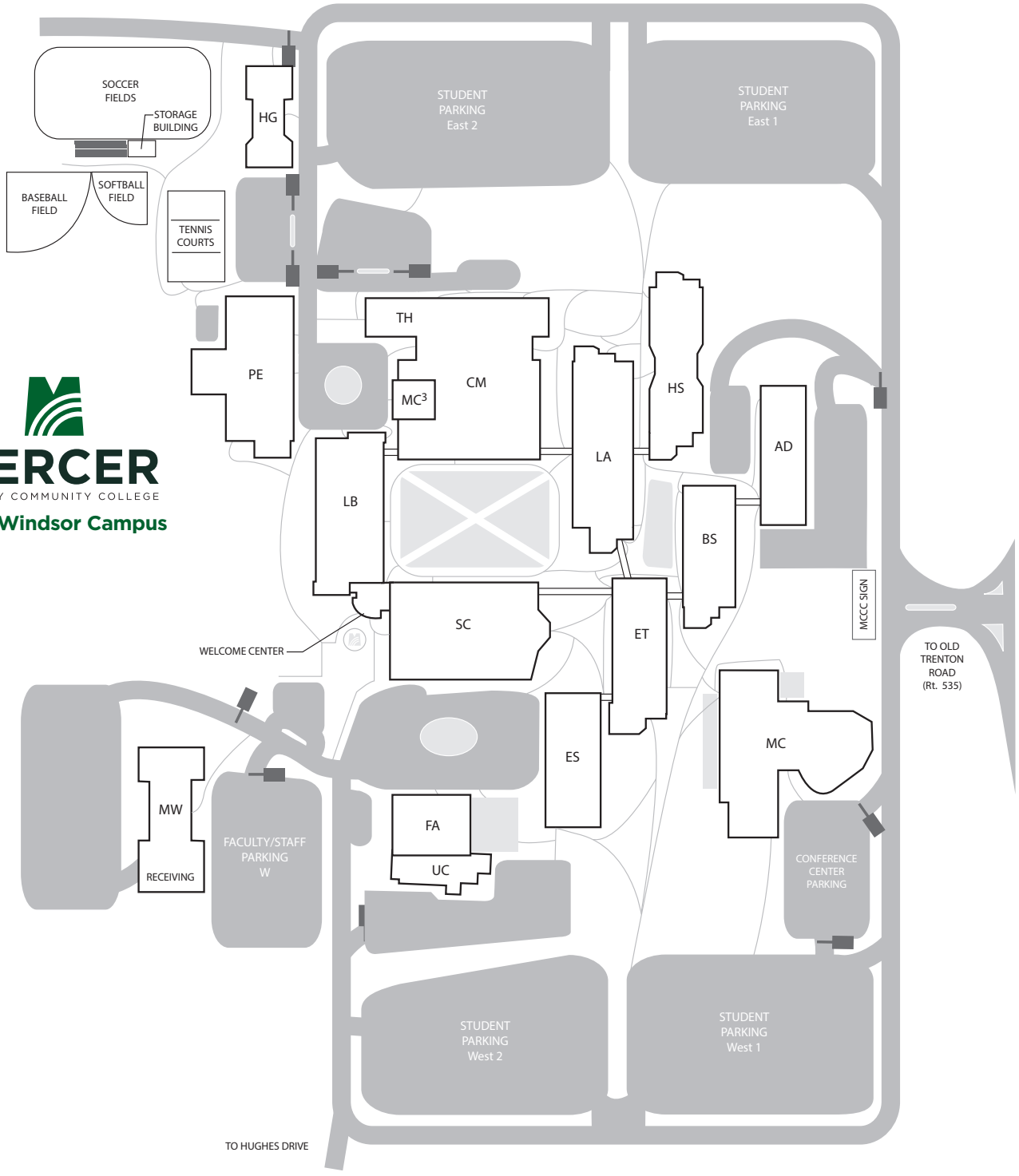
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MERCER
COUNTY COMMUNITY COLLEGE

West Windsor Campus



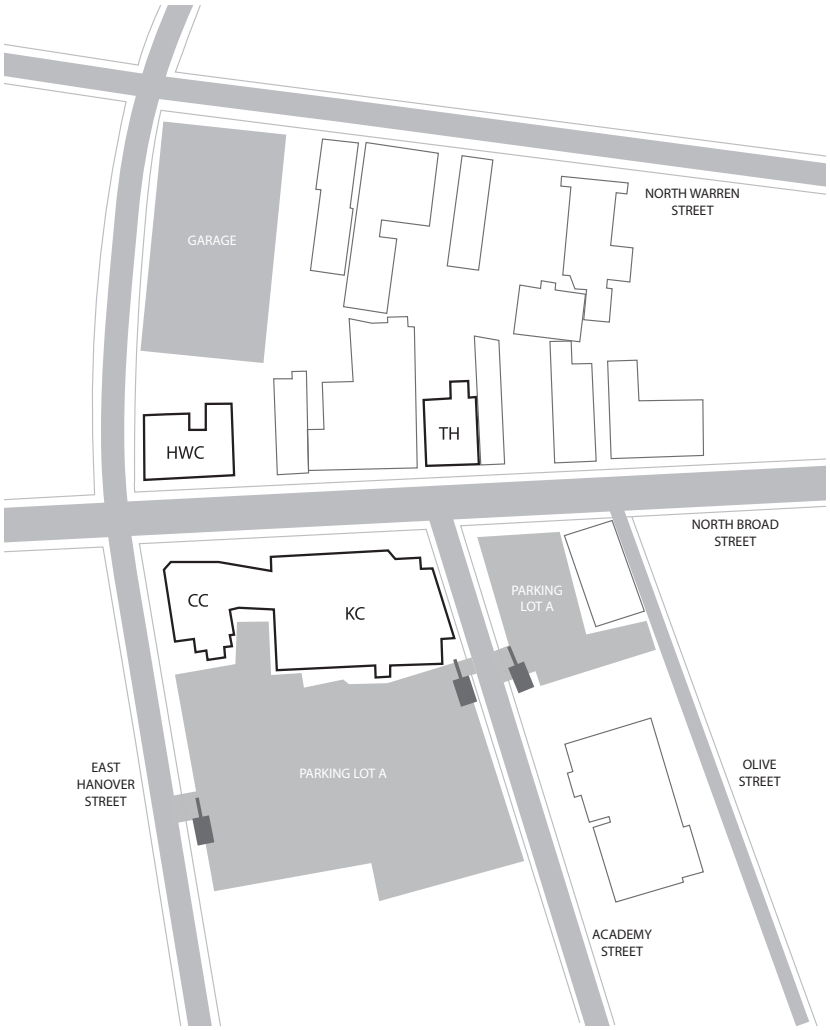
KEY

- SECURED GATE
- BUILDING OR STRUCTURE
- ROAD
- WALKWAY

- AD Richard K. Greenfield Administration Building
- BS Business
- CM Communications Center
- ES Engineering Systems
- ET Engineering & Technology
- FA Fine Arts
- HG Horticulture Greenhouse
- HS Health & Science
- LA Liberal Arts
- LB Library
- MC Conference Center
- MC3 Studio Theatre
- MW Maintenance
- PE Physical Education
- SC Student Center
- TH Kelsey Theatre

MERCER
COUNTY COMMUNITY COLLEGE

James Kerney Campus



KEY

- SECURED GATE
- BUILDING OR STRUCTURE
- ROAD
- WALKWAY

KC Kerney Center
CC Career Center
TH Trenton Hall
HWC Health & Wellness Center

Academic Programs

Accounting: CPA Education Compliance
Certificates of Proficiency
Advertising + Graphic Design
A.A.S. Degree in Visual Arts
Airline Transport Pilot
Certificate of Proficiency
3-D Animation
Certificate of Proficiency
Architecture
A.S. Degree
Audio Production
A.A.S. Degree
Automotive Technology
A.A.S. Degree
Aviation Flight Technology
A.A.S. Degree
optional concentration:
Rotorcraft Transition Program (RTP)
Certificate of Proficiency
Aviation Management
A.S. Degree
Biology
A.S. Degree in Liberal Arts and Sciences
Bookkeeping
Certificate of Proficiency
Building Construction Tech
Certificate of Proficiency
Business Administration
A.S. Degree
optional concentrations:
Global Business, Sports Management, Financial Technology
Business Studies
A.A.S. Degree in Business Management
concentrations: Business Systems, Entrepreneurship, Software Professional, Management
Catering Management
Certificate of Proficiency
Chemistry
A.S. Degree in Liberal Arts and Sciences
Commercial Photography
Certificate of Achievement
Communication
A.A. Degree in Liberal Arts and Sciences
Communication: Speech and Theatre
A.A. Degree in Liberal Arts and Sciences
Computer Information Systems
A.S. Degree
Computer Science
A.S. Degree in Liberal Arts and Sciences
Concentration: Data Science
Certificate of Proficiency
Criminal Justice
A.S. Degree:
optional concentrations: Corrections, Law Enforcement
Culinary Arts
A.A.S. Degree
concentrations: Culinary Arts, Pastry Arts
Culinology / Food Science
A.S. Degree
Dance
A.A. Degree in Liberal Arts and Sciences
A.F.A. Degree in Performing Arts
Certificate of Achievement
Data Analytics
Certificate of Proficiency
Database Administration
Certificate of Proficiency
Database Concepts and Skills Associate
Certificate of Achievement
Digital Film
A.A.S. Degree
Digital Media Arts
A.A.S. Degree in Visual Arts
concentrations: 3-D Animation, Multimedia
Education - Early Childhood / Special Education Assistant
A.A.S. Degree in Human Services
Education (K-12)
A.A. Degree in Liberal Arts and Sciences

A.A. — Associate in Arts Degree
A.A.S. — Associate in Applied Science Degree
A.F.A. — Associate in Fine Arts Degree
A.S. — Associate in Science Degree

* Degrees for **Business Studies - Management**, **Criminal Justice**, and **Liberal Arts** may be achieved entirely online as well as by traditional classroom instruction.

[1] offered with Camden County College
[2] offered with Mercer County Technical Schools
[3] A.S. degree awarded by MCCC; Diploma awarded by St. Francis Medical Center School of Nursing
[4] A.S. degree awarded through a cooperative program with the School of Health Professions at Rutgers, The State University of New Jersey
[5] A.A.S. degree awarded through a cooperative program with Brookdale Community College

Special Programs/Options

Developmental Studies
English as a Second Language (ESL)
Other Non-Degree Choices
(details at www.mccc.edu/catalog/catalog_general)

Numbers at the Top of Each Program Page
linking at www.mccc.edu/catalog/catalog_programs

Program **ACCTG.AAS** ← **MCCC code that identifies a student's chosen major**
CIP 520302 ← **external code for State reporting purposes**

Electronics Engineering Technology
A.A.S. Degree
Certificate of Proficiency
Engineering Science
A.S. Degree
Transfer Certificate
Entertainment Technology: Music Technology
A.A.S. Degree
Concentration: Music Technology
Entrepreneurial Management
Certificate of Achievement
Exercise Science
A.S. Degree
Fashion/Apparel Design
A.A.S. Degree in Visual Arts
Fashion Merchandising
A.A.S. Degree in Business Management
Fire Science Technology
A.A.S. Degree
Funeral Service
A.A.S. Degree
Certificate of Proficiency
Funeral Service Preparatory
A.A.S. Degree in Business Management
Game Design
A.A.S. Degree
Game Programming
A.A.S. Degree
Health Management
Certificate of Proficiency
Health Science
A.A.S. Degree
Horticulture
A.A.S. Degree
concentrations: Ornamental Horticulture, Urban Agriculture, Production Agriculture, Landscape Design and Planning
Hotel, Restaurant and Institution Management
A.A.S. Degree
Illustration
A.A.S. Degree in Visual Arts
Information Technology
A.A.S. Degree
optional concentration: Cybersecurity
Certificate of Proficiency
IT - Database
Certificate of Proficiency
IT - Network
Certificate of Proficiency
IT - Risk Management
Certificate of Proficiency
IT System Analyst Associate
Certificate of Achievement
Journalism: New Media
A.S. Degree
Legal Studies and Professional Ethics
A.A.S. Degree
Liberal Arts
A.A. Degree in Liberal Arts and Sciences*
optional concentration: Global Studies
Manufacturing Engineering Technology
A.A.S. Degree
Certificate of Proficiency
Mathematics
A.S. Degree in Liberal Arts and Sciences
Medical Laboratory Assistant
Certificate of Proficiency
Medical Laboratory Technology
A.A.S. Degree
Medical Office Assistant
Certificate of Proficiency
Microcomputer Applications
Certificate of Proficiency
Mobile and Web Computing
Certificate of Proficiency
Music
A.S. Degree in Liberal Arts and Sciences
Nursing
A.S. Degree
Oracle SQL Programming and Database Design Specialist
Certificate of Achievement
Ornamental Horticulture
Certificate of Proficiency
Paralegal
Certificate of Proficiency
Photography
A.F.A. Degree in Visual Arts
Certificate of Proficiency
Certificate of Achievement
Physical Therapist Assistant
A.A.S. Degree
Physics
A.S. Degree in Liberal Arts and Sciences
Plant Science
A.S. Degree
Professional Acting
Certificate of Achievement
Professional Baking
Certificate of Proficiency
Professional Cooking
Certificate of Proficiency
Professional Studies
A.A.S. Degree
Public Health
A.S. Degree
Radiography
A.A.S. Degree
Respiratory Care[5]
A.A.S. Degree
Small Business Management
Certificate of Proficiency
Sustainability
A.S. Degree
Television
A.A.S. Degree in Radio/TV
Theatre
A.A. Degree in Liberal Arts and Sciences
A.F.A. Degree in Performing Arts
Urban Agriculture
Certificate of Proficiency
Visual Arts
A.F.A. Degree
concentrations: Art History, Ceramics/Sculpture, Fine Arts
Web Development
Certificate of Achievement

complete content at
www.mccc.edu/catalog

Credit Course Subject

Course descriptions at www.mccc.edu/catalog/catalog _courses are presented alphabetically by subject. The three-letter prefix abbreviates that subject area; the three digits that follow identify the particular course. Generally, courses numbered 100 or lower are academic foundation courses; courses numbered from 101 to 199 are first-year offerings; and 200-level courses are second-year offerings.

Each description specifies the course's credit value, which determines the tuition charge and the extent to which the course contributes toward the credit requirements for a degree.

All courses require college-level competence in reading, writing, and basic mathematics unless otherwise specified. Minimum proficiency is determined by one of the following: college skills placement test; completion of required academic foundations courses in reading, writing, and computation; or evidence of equivalent academic preparation. Specific skill requirements and additional course prerequisites are noted in individual course descriptions.



Throughout the course descriptions, the indicator at left identifies **approved General Education courses**.

Prerequisites and Corequisites
Some courses require specific prerequisites or corequisites.

- Providing a foundation of related learning, a *prerequisite* is a course that must be successfully completed prior to starting any course requiring it.
- Providing complementary content, a *corequisite* is a course that must be taken either along with or prior to starting another course requiring it.

Subjects and Prefixes

Accounting **(ACC)**
Advanced Manufacturing Technology **(AMT)**
Advertising + Graphic Design **(ADV)**
American Sign Language **(ASL)**
Anthropology **(ANT)**
Arabic **(ARB)**
Architecture **(ARC)**
Automotive Technology **(AUT)**
Aviation Technology **(AVI)**
Biology **(BIO)**
Business **(BUS)**
Chemistry **(CHE)**
Chinese **(CHI)**
Civil Engineering Technology **(CIV)**
College Success and Wellness **(CSW)**
College Success for Business **(CSB)**
College Success for Health Professions **(CSH)**
Communication **(CMN)**
Computer Information Systems **(CIS)**
Computer Science **(COS)**
Criminal Justice **(CRJ)**
Dance **(DAN)**
Digital Media Arts **(DMA)**
Drafting/Computer-Aided Design **(DRA)**
Economics **(ECO)**
Education **(EDU)**
Electronics Engineering Technology **(EET)**
Engineering Technology **(ENT)**
English **(ENG)**
English as a Second Language **(ESL)**
Entertainment Technology **(ETT)**
Fashion **(FAS)**
Fine Arts, Art History **(ART)**
Fire Science **(FIR)**
French **(FRE)**
Funeral Service **(FUN)**
Game Design **(GAM)**
German **(GER)**
Health / Physical Education **(HPE)**
Heating, Refrigeration and Air Conditioning **(HRA)**
History **(HIS)**
Hospitality **(HOS)**
Information Systems Technology **(IST)**
Italian **(ITA)**
Japanese **(JPN)**
Latin **(LAT)**
Legal Studies **(LEG)**
Liberal Arts Studies **(LAS)**
Library Technology **(LIB)**
Marketing **(MKT)**
Mathematics **(MAT)**
Medical Laboratory Assistant **(MLA)**
Medical Laboratory Technology **(MLT)**
Medical Office Assistant **(MOA)**
Music **(MUS)**
Networking Technology **(NET)**
Nursing **(NRS)**
Nursing **(NUR)**
Nursing: Cooperative Program **(NSG)**
Office Systems Technology **(OST)**
Ornamental Horticulture **(OHT)**
Philosophy **(PHI)**
Phlebotomy **(PBT)**
Photography **(PHO)**
Physical Therapist Assistant **(PTA)**
Physics **(PHY)**
Political Science **(POL)**
Psychology **(PSY)**
Public Health **(PBH)**
Radiography **(RAD)**
Religious Studies **(REL)**
Security Systems Technology **(SST)**
Sociology **(SOC)**
Spanish **(SPA)**
Study Abroad **(STA)**
Sustainability **(SUS)**
Theatre **(THR)**
Visual and Performing Arts **(VPA)**
Women's and Gender Studies **(WGS)**

General Education Electives

The development of competence in critical thinking, writing, speaking, problem-solving, and information literacy is essential to a student's educational and career success. General Education courses provide students with the opportunity to develop these skills. (See MCCC policy at www.mccc.edu/catalog/catalog_general, page 29.)

The following courses approved for the purposes of General Education at Mercer County Community College are regarded as General Education courses at many, but not all, other colleges and universities in New Jersey and other states. The Statewide Transfer Agreement guarantees transfer of all approved courses that meet General Education requirements for graduates from A.A. and A.S. programs transferring to New Jersey's four-year public colleges and universities. Non-graduates may determine whether particular courses will meet requirements at other New Jersey colleges or universities via NJ Transfer (www.njtransfer.org). Students interested in transferring to out-of-state colleges and universities should consult the catalogs, websites, and staff of those institutions.

Students are advised to review the specific General Education requirements in their chosen MCCC program of study.

GenEd

Look for this indicator of approved General Education courses throughout course descriptions at www.mccc.edu/catalog/catalog_courses.

* *does not satisfy* ***Laboratory Science*** *general education requirement*

• *course is also a* ***Diversity and Global Perspective*** *general education elective*

Written and Oral Communication in English

CMN 111	Speech: Human Communication
CMN 112	Public Speaking
ENG 101	English Composition I
ENG 102	English Composition II *(A.A.S. programs only)*

Mathematics

MAT 115	Algebra and Trigonometry I
MAT 116	Algebra and Trigonometry II
MAT 120	Mathematics for Liberal Arts
MAT 125	Elementary Statistics I
MAT 126	Elementary Statistics II
MAT 140	Applied College Algebra
MAT 146	Pre-calculus
MAT 149	Calculus
MAT 151	Calculus I
MAT 152	Calculus II
MAT 200	Statistics for Social and Health Sciences I
MAT 201	Probability and Statistics for Science and Engineering
MAT 208	Linear Algebra
MAT 251	Calculus III
MAT 252	Differential Equations

Science

BIO 101	General Biology I
BIO 102	General Biology II
BIO 103	Anatomy and Physiology I
BIO 104	Anatomy and Physiology II
BIO 106	Human Anatomy
BIO 113	Biological Science Concepts
* BIO 114	Environmental Science Concepts
BIO 201	Microbiology
BIO 203	Entomology
BIO 204	Ecology
BIO 208	Genetics
* BIO 215	Principles of Microbiology
CHE 101	General Chemistry I
CHE 102	General Chemistry II
CHE 106	Chemical Science Concepts
CHE 107	General and Physiological Chemistry
CHE 201	Organic Chemistry I
CHE 202	Organic Chemistry II
OHT 101	Plant Science
OHT 108	Soil and Plant Nutrition
PHY 101	College Physics I
PHY 102	College Physics II
PHY 109	Fundamentals of Physics
PHY 111	Physical Science Concepts
PHY 115	University Physics I
PHY 215	University Physics II

Technology

COS 101	Introduction to Computer Science
COS 102	Computer Science I – Algorithms and Programming
DMA 144	Internet Tools and Techniques
IST 101	Computer Concepts with Applications
IST 102	Computer Concepts with Programming
IST 109	Introduction to Programming

Social Science

• ANT 101	Anthropology
ECO 103	Basic Economics
ECO 111	Macroeconomics
ECO 112	Microeconomics
POL 101	The American Political System
POL 102	State and Local Government
POL 201	International Relations
PSY 101	Introduction to Psychology
PSY 206	Child Development
PSY 207	Developmental Psychology: Across the Life Span
SOC 101	Introduction to Sociology
SOC 107	Social Problems
SOC 201	Marriage and the Family

complete content at www.mccc.edu/catalog

Humanities

Literature

ENG 201 Introduction to Literature: Drama
ENG 202 Introduction to Literature: Novel
• ENG 203 World Literature I
• ENG 204 World Literature II
ENG 205 American Literature I
ENG 206 American Literature II
ENG 208 Modern American Novel
ENG 211 Shakespeare
ENG 212 Introduction to Literature: Poetry
• ENG 213 African American Literature
• ENG 214 Literature of the East
ENG 216 Literature Into Film
ENG 220 Science Fiction Literature
• ENG 221 Women in Literature
ENG 227 English Literature I
ENG 228 English Literature II

Aesthetic Appreciation

ADV 230 History of Graphic Design
ART 101 Art and Culture
ART 121 History of Art I
ART 122 History of Art II
• ART 124 Survey of World Art
ART 125 Topics in Contemporary Art
• ART 126 African American Art
CMN 107 Cinema
• DAN 101 Introduction to Dance and Culture
MUS 103 Introduction to Music
• MUS 155 History of Jazz and Blues
• MUS 156 History of American Pop Music
MUS 224 Music History and Literature I
MUS 225 Music History and Literature II
PHO 110 History of Photography
THR 101 Introduction to Theatre
THR 210 Theatre History – Classical to Elizabethan
• THR 212 Central Voices in World Drama

Philosophy

PHI 102 Introduction to Philosophy
PHI 112 Critical Thinking
PHI 113 Logic
PHI 204 Ethics
PHI 205 Moral Choices
• PHI 210 Eastern Philosophy
PHI 220 Philosophy of Politics

Religious Studies

REL 101 Introduction to Religious Studies
• REL 102 Living World Religions

World Language

ASL *all American Sign Language courses*
ARB *all Arabic courses*
CHI *all Chinese courses*
FRE *all French courses*
GER *all German courses*
ITA *all Italian courses*
JPN *all Japanese courses*
LAT *all Latin courses*
SPA *all Spanish courses*

History

*All courses in the **Historical Perspective** list below additionally qualify as **Humanities** general education.*

Historical Perspective

HIS 101 History of Western Civilization to 1648
HIS 102 History of Western Civilization Since 1648
HIS 105 United States History to 1865
HIS 106 United States History Since 1865
• HIS 109 African American History
• HIS 112 World History to 1500
• HIS 113 World History Since 1500
• HIS 213 Twentieth-Century World History
HIS 214 The United States Since 1945
• HIS 218 History of Latin America
• HIS 221 History of American Women
• HIS 231 Women in Antiquity
HIS 235 Early Modern Europe

Diversity and Global Perspective

ANT 101 Anthropology
ART 124 Survey of World Art
ART 126 African American Art
BUS 230 Global Environment of Business
CMN 214 Issues in Intercultural Communication in the United States
CMN 215 Gender and Communication
DAN 101 Introduction to Dance and Culture
ENG 203 World Literature I
ENG 204 World Literature II
ENG 213 African American Literature
ENG 214 Literature of the East
ENG 221 Women in Literature
ENG 222 Children's Literature
ENG 232 Post-Colonial Women Writers
HIS 109 African American History
HIS 112 World History to 1500
HIS 113 World History Since 1500
HIS 213 Twentieth-Century World History
HIS 215 The Holocaust and Other Genocides
HIS 218 History of Latin America
HIS 221 History of American Women
HIS 231 Women in Antiquity
HIS 232 Women in Europe Since 1500
HOS 115 Food and Culture
MUS 155 History of Jazz and Blues
MUS 156 History of American Pop Music
PHI 210 Eastern Philosophy
POL 201 International Relations
PSY 215 Human Sexuality
REL 102 Living World Religions
SOC 132 Introduction to Women's and Gender Studies
SOC 201 Marriage and the Family
SOC 209 Racial, Ethnic, and Minority Groups
THR 212 Central Voices in World Drama
WGS 132 Introduction to Women's and Gender Studies
WGS 221 Seminar in Women's and Gender Studies

Accounting: CPA Education Compliance

CERTIFICATES OF PROFICIENCY

Programs **CPA.BUS24.CERT**
CIP 520303

CPA Education Compliance certificates offered through Mercer County Community College are suitable for those students seeking to satisfy the educational requirements established by the New Jersey State Board of Accountancy in order to be eligible to takethe CPA Examination. These are not "review" or "prep" courses for the examination.

To be licensed as a Certified Public Accountant in New Jersey, an applicant must have a baccalaureate or higher degree and obtain at least 150 semester hours from an accredited college or university. These credits can be obtained within or beyond a degree program. In addition, an applicant must obtain at least one year of full-time experience in the areas of auditing or accounting, working under a CPA whose active license is from New Jersey or a state having requirements substantially equivalent to those of New Jersey.

To take the CPA Examination, an applicant must possess:

- a baccalaureate or higher degree from an accredited college or university in any field of study
- at least 24 semester hours in accounting and 24 semester hours in business courses other than accounting;
- a minimum of 120 semester hours.

Enrollment in these certificate programs alone or concurrently is permitted, depending on individual student requirements. Admission to either requires a baccalaureate or higher degree as specified, including course credits for English (equivalent to ENG 101 or higher) and mathematics (equivalent to MAT 140 or higher), and approval of the program coordinator.

Curriculum

Business 24

Code	Course (lecture/lab hours)	Credits
BUS 101	Introduction to Business (3/0)	3
BUS 107	Business Law I (3/0)	3
BUS 205	Business Statistics I (3/0)	3
BUS 206	Business Statistics II (3/0)	3
BUS 209	Business Communications (3/0)	3
BUS 210	Principles of Management (3/0)	3
BUS 230	Global Environment of Business (3/0)	3
BUS 296	International Business Practice Firm (1/5)	3
	OR	
MKT 101	Principles of Marketing (3/0)	3
		24

Credit-bearing certificate programs can serve as gateways to earning an associate degree. Students are encouraged to consult the program coordinator, an academic advisor or Academic Advisor to explore such opportunities

Business, Technology, and Professional Studies Division

609.570.3482 - **admiss@mccc.edu**

NOTE: All program listings are subject to periodic updates.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_certificate**

Advertising + Graphic Design

Programs **ADV.GRA.AAS**
CIP 500402

ASSOCIATE IN APPLIED SCIENCE DEGREE IN VISUAL ARTS (A.A.S.)

Advertising + Graphic Design, a comprehensive art program in the Visual Arts A.A.S. degree, emphasizes concept development and visual communication skills. The degree program prepares students for positions as graphic designers, art directors, design consultants, web/digital designers, prepress specialists, exhibit designers, packaging developers, and visual communicators. These positions are most often found in advertising agencies, design firms, corporate communication departments, interactive multimedia studios, and the television, film and media industries.

Students gain a thorough understanding of the discipline by preparing for advanced study in graphic design, advertising design, and web/digital design. The program parallels the first two years of education at a majority of undergraduate universities and art colleges, with an emphasis on career training for gainful employment.

The general principles studied and practiced in these courses are the foundation of creative thinking and successful solutions for graphic design, illustration, and advertising art direction communication problems. The design course sequence emphasizes the development of creative thinking, problem solving, and forms of visual communication.

Most coursework takes place in a studio using regularly upgraded professional-quality hardware and software. Applying Macintosh as well as PC platforms, the equipment used at MCCC is the same as that most commonly used by agencies, studios, and corporate art departments.

The program may be pursued on a full-time or part-time basis. Some courses may only be offered during the day.

PROGRAM OUTCOMES

- Apply computer applications to design principles;
- Visualize and practice professional typography;
- Design and present professional-quality work;
- Create professional-quality logos, newsletters, posters, brochures, websites, publications,and advertisements;
- Create web pages that use design principles that communicate effectively;
- Develop and present creative ideas in both written and oral formats;
- Develop a professional portfolio to serve in the pursuit of further education or employment

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ART 102	Basic Drawing (1/4)	3
ART 105	Two-Dimensional Design (1/4)	3
DMA 115	Vector Drawing (1/4)	3
DMA 144	Internet Tools and Techniques (1/4)	3
ENG 101	English Composition I (3/0)	3
SECOND SEMESTER		
ADV 101	Advertising Design I (1/4)	3
ADV 110	Typography I: Basics of Graphic Design (1/4)	3
ADV 230	History of Graphic Design (3/0)	3
DMA 110	Digital Imaging (1/4	3
DMA 145	Web Design I (1/4)	3
THIRD SEMESTER		
ADV 210	Typography II: Publication Design (1/4)	3
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
DMA 250	Digital Portfolio Seminar (1/4)	3
ENG 102	English Composition II (3/0)	3
MAT	Mathematics elective MAT 120 or 125 recommended. Select in consultation with an academic advisor.	3
FOURTH SEMESTER		
ADV 201	Advertising Design II (1/4)	3
ART 106	Three-Dimensional Design (1/4)	3
PHO 103	Digital Photography I (2/3)	3
ART	Art History elective Select from ART 121, 122, 124, 125; PHO 110.	3
— —	Professional elective Select from ADV 220, 230; ART 104; CMN 146; DMA 135, 210, 245.	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

NOTE: Students must earn a minimum grade of C in ADV 101, 110, 201, 210; ART 105; DMA 145 to graduate.

complete content at
www.mccc.edu/catalog

Arts and Communication Division

609.570.3378 - **admiss@mccc.edu**

NOTE: All program listings are subject to periodic updates.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_degree**

3-D Animation

CERTIFICATE OF PROFICIENCY

The **3-D Animation** Certificate prepares students for positions as 3-D production artists, animators, and modelers. Typical employers include animation studios; advertising agencies; design firms; television, film and video effects houses; and other branches of the entertainment industry.

PROGRAM OUTCOMES

- Explain the pre-production process, including character design and storyboarding;
- Visualize and animate story ideas;
- Apply animation and storytelling principles to specific animation projects;
- Apply design principles to create 3-D computer animations that communicate effectively;
- Apply professional 3-D modeling and animation software applications;
- Solve design problems, which contain change over time, 3-D models, camera positions, lighting, and textures;
- Create a professional portfolio to serve in the pursuit of further education or employment.

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
ART 102	Basic Drawing (1/4)	3
DMA 115	Vector Drawing (1/4)	3
DMA 120	3D Modeling (1/4)	3
ART 104	Life Drawing (1/4)	3
DMA 135	Digital Narrative (1/4)	3
DMA 226	3D Animation (1/4)	3
ART 125	Topics in Contemporary Art (3/0)	3
DMA 210	Motion Graphics (1/4)	3
DMA 225	Computer Animation I (1/4)	3
DMA 250	Digital Portfolio (1/4)	3
		33

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Arts and Communication Division
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NOTE: All program listings are subject to periodic updates.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_certificate**

Architecture

ASSOCIATE IN SCIENCE DEGREE (A.S.)

The **Architecture** transfer program parallels the first two years of education at a majority of undergraduate schools of architecture. It offers a balance of academic and design courses.

The academic courses provide students with a broad base of general knowledge which widens their outlook and increases their ability to evaluate issues and make enlightened decisions. The design courses emphasize the development of skills in architectural conceptualization and design decision-making. They include both traditional methods of architectural graphics and model building as well as use of the computer as a threedimensional design study tool.

Together, the academic courses and design courses form the foundation needed for advancement in architectural education and, later, in professional practice. Students have the opportunity to enrich their education through participation in field trips and a variety of architecture-related extracurricular activities.

Since architecture programs vary among senior colleges and admission is highly competitive, faculty assistance is readily available to students preparing design portfolios and investigating potential transfer institutions. The architecture faculty are registered architects.

PROGRAM OUTCOMES

- Use analytical skills to determine the major elements of a work of architecture and/or an architectural design project;
- Comprehend and apply the various stages of the creative thought process to produce an architectural design;
- Understand and apply the basic principles of sustainable design;
- Use two- and three-dimensional visual communication skills (freehand, traditional, and computer-generated drawings and physical models) to convey a complete architectural idea;
- Demonstrate knowledge of the important buildings and stages in the history of architecture and the social and technological factors that influenced them;
- Critically evaluate the built environment – its relationship to the natural world and the reciprocal sociological and psychological influences on man;
- Demonstrate knowledge of architectural materials and structural systems and their appropriate applications in building construction.

Admission to the Architecture program requires a high school diploma or its equivalent with at least one year of science (biology, chemistry, or physics) and two years of algebra. Courses in the visual arts are highly recommended.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ARC 102	Graphic Communication for Architecture (1/4)	3
ARC 101	Architecture Basic Design I (1/6)	3
ART 122	History of Art II (0/3)	3
ENG 101	English Composition I (3/0)	3
CMN 112	Public Speaking (3/0)	3
SECOND SEMESTER		
ARC 104	Computers in Architecture (1/4)	3
ARC 123	Architecture Basic Design II (1/6)	4
ENG 102	English Composition II (3/0)	3
MAT 146	Pre-Calculus (4/0)	4
ARC 124	History and Theory of Modern Architecture (0/3)	3
THIRD SEMESTER		
ARC 234	Construction Systems (3/0)	3
ARC 229	Architecture Design I (1/6)	4
PHY 101	College Physics I (3/3)	4
— —	Social Science general education elective	3
FOURTH SEMESTER		
— —	Aesthetic Appreciation general education elective	3
ARC 230	Architecture Design II (1/6)	4
— —	General education elective	3
— —	Humanities general education elective	3
— —	Science or Technology general education elective	3
		63

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

Arts and Communication Division

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NOTE: All program listings are subject to periodic updates.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_degree**

Audio Production

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The **Audio Production** program targets a wide range of technical skills. Students begin with traditional radio production, then rapidly accelerate into advanced audio production. Individuals in this program will become proficient in audio applications that are the standard in the industries of radio, audio, and music production.

Theoretical instruction combines with hands-on, real-world lab projects that get students working with audio mixers, microphones, and digital audio workstations from the very beginning. Recording, sequencing, and editing audio help active students build a portfolio of work to demonstrate a level of expertise reached using tools of the profession.

Audio Production is a career-oriented program designed to allow graduates to seek employment following graduation or transfer to four-year institutions. Graduates can enter the workforce as an audio producer, radio producer, DJ, audio editor, live sound technician, audio engineer, sound recorder, or other entry-level position in the radio, live sound, or recording industries.

Mercer graduates have transferred to a number of colleges and universities in New Jersey and other states, including The College of New Jersey, Montclair University, Monmouth University, Rowan University, William Paterson State College, and Emerson College.

Admission to the program requires a high school diploma or its equivalent.

PROGRAM OUTCOMES

- Operate radio studio equipment including broadcast consoles, analog and digital recording devices, digital media players, and computerized music playback systems;
- Record vocal and instrumental performances in a multi-track environment;
- Perform digital editing and multi-track sequencing on digital audio workstations;
- Write, edit, and produce commercial and news copy;
- Produce and announce voiceovers for video sequences, radio news, and commercial projects;
- Write, produce, and post a podcast;
- Identify different advertising and marketing models utilized in social media;
- Interpret audience data using analytics;
- Work cooperatively with colleagues to achieve multiple goals including successful multi-track recording sessions;
- Achieve entry-level professional competence for a position in recording, sound reinforcement, or radio broadcasting.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 101	Mass Media (3/0)	3
CMN 151	Introduction to Radio (2/2)	3
CMN 153	Digital Audio Production I (2/2)	3
ENG 101	English Composition I (3/0)	3
MUS 156	History of American Pop Music (3/0	3
SECOND SEMESTER		
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
CMN 253	Digital Audio Production II (2/2)	3
DMA 144	Internet Tools and Techniques (1/4) (recommended)	
	OR	3
IST 101	Computer Concepts with Applications (2/2)	
ENG 102	English Composition II (3/0)	3
MAT 125	Elementary Statistics I (3/0) Or consult academic advisor	3
THIRD SEMESTER		
CMN 146	Social Media Technologies (2/2)	3
CMN 250	Announcing for Media (2/2)	3
CMN 254	Live Sound Reinforcement (2/2)	3
CMN 256	Digital Audio Production III (2/2)	3
CMN 131	Journalism I (3/0)	3
FOURTH SEMESTER		
CMN 157	Podcasting (2/2)	3
CMN 255	Sound Design for the Entertainment Industry (1/4)	3
THR 152	Lighting Technology (2/2)	
	OR	3
CMN 142	Introduction to Field Production (2/2)	
CMN 290	Internship: Communications	
	OR	3
CMN 286	Special Studies in Radio	
— —	Social Science or Humanities general education elective	3
		60

NOTE: Students must earn a minimum grade of C in all CMN courses to graduate.

Arts and Communication Division

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NOTE: All program listings are subject to periodic updates.
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Automotive Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The **Automotive Technology** program introduces students to current automotive systems and related diagnostic and service techniques, and awards graduates an Associate in Applied Science (A.A.S.) degree. Students learn about current automotive technologies and their use in late model production vehicles. Learning occurs during traditional classroom instruction and hands-on activities performed in an automotive lab.

Students learn the latest automotive technology trends by completing an up-to-date training curriculum, which includes performing hands-on work on late model vehicles provided by vehicle manufacturers. Additionally, students develop a strong work ethic and learn professionalism while fulfilling internship requirements at their sponsoring automotive repair facility.

PROGRAM OUTCOMES

- Diagnose, repair, and service current automotive technologies;
- Demonstrate desirable attitudes and work habits while working individually or with others;
- Obtain service repair information and procedures from online websites and electronic databases;
- Communicate effectively and professionally with customers and fellow technicians.

Mercer's Automotive program offers three unique paths of study:

- The MOPAR Career Automotive Program (Mopar CAP) is an A.A.S. degree program sponsored by Stellantis (formerly Fiat Chrysler Automobiles). Students enrolled in Mopar CAP earn factory technical training credits from Stellantis while taking college courses. Students complete a series of internships at a Chrysler, Dodge, Jeep, Ram, or Fiat dealership of their choosing. The goal of the MOPAR Career Automotive Program is to prepare students for a career working as a service technician at a Stellantis-affiliated new car dealership.
- The Subaru University Program is an A.A.S. degree program sponsored by Subaru of America. Students enrolled in Subaru University earn factory technical training credits from Subaru of America while taking college courses. Students complete a series of internships at a Subaru dealership of their choosing. The goal of the Subaru University Program is to prepare students for a career working as a service technician at a Subaru-affiliated new car dealership.
- The Comprehensive Automotive Program is an A.A.S. degree program where students learn theory, operation, diagnosis, and service of systems not specific to any particular vehicle manufacturer. Students complete a series of internships at an approved independent, franchise, or new car dealership repair facility of their choosing. The goal of the Comprehensive Automotive Program is to prepare students for employment at a wide variety of vehicle service and repair centers.

Learning Opportunities After Graduation

The college collaborates with Audi of America to offer Mercer's Automotive graduates opportunities of the Audi Education Partnership (AEP). While Mopar CAP and Subaru University students complete the manufacturers' core technical training courses while taking classes at Mercer, AEP provides accelerated learning opportunities for Mercer's Automotive graduates to finish their Audi technical training after they leave the college.

Qualifying graduates of Mercer's Automotive program are eligible to apply to Audi of America for acceptance into the AEP program, which concludes in as little as 18 months after a student graduates from Mercer. Benefits include employment as an Audi apprentice technician at a sponsoring Audi dealership during fulfillment of program requirements, all expenses paid expert-level training from an Audi technical training center, tool purchase incentives, and a full-time job at a participating Audi dealership upon successful completion of the program. Students who complete the Audi AEP are considered expert level trained in Audi vehicle technology, which positions them for full-time employment as a service technician at an Audi new car dealership.

Acceptance into the Audi program is competitive. Not every student meets the qualifications; but for those who do, the AEP may be a good option to jumpstart his or her career. Mercer's Automotive Technology program coordinator will provide more details about the Audi Education Partnership to individuals expressing interest.

Degree Program Admission and Completion

Registration for courses in the Automotive Technology program at Mercer requires

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Automotive Technology (cont'd)

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

completion of the college's admissions process and a strong interest in starting a career in automotive technology. Admissions to the program are competitive, determined by basic skill level along with a personal interview with program representatives. Program representatives want to ensure prospective students understand the program is not for hobbyists, but is instead reserved for students wanting a career in the automotive industry. Prospective students must be willing to commit to two years of automotive education and completion of required academic courses.

Students can complete the program over two calendar years, which includes class attendance during Summer terms each year. Students generally attend automotive classes two days each week, leaving the remaining days and evenings to take academic courses and participate in the internship work experience. Internship requirements for Automotive students begin in the program's third semester.

The college begins a new cohort of Automotive students each Fall and Spring semesters. Students beginning in the Spring take slightly longer than two calendar years to complete their degree because of the sequencing of the automotive courses. Starting a new cohort of Automotive students each Spring semester is contingent upon an adequate number of students to form a new class.

Automotive classes meet at the Assunpink Campus of the Mercer County Technical School at 1085 Old Trenton Road, across from the main entrance to the college's West Windsor Campus. Although the automotive facility is located outside the college campus, it is indeed a college program. Academic courses can be taken at Mercer's West Windsor or James Kerney campuses, and some may be offered online.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
AUT 110	Introduction to Automotive Electronics (3/1)	3
AUT 111	Automotive Service Fundamentals (2/6)	5
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
SECOND SEMESTER		
AUT 113	Suspension, Steering and Alignment (2/4	4
AUT 114	Automotive Electricity and Electronics (2/3)	3
MAT 140	Applied College Algebra (4/0) Or select from MAT 146 or 151.	4
SUMMER SESSION		
AUT 115	Automotive Brake Systems (2/4)	4
AUT 122	Internship in Automotive Technology I	1
AUT 212	Automotive Air Conditioning (2/2)	3
ENG 102 or CMN 111	English Composition II (3/0) or Speech: Human Communication (3/0)	3
THIRD SEMESTER		
AUT 224	Manual Transmissions and Drivelines (2/3)	3
AUT 123	Internship in Automotive Technology II	1
AUT 213	Engine Service (2/5)	4
PHY 111	Physical Science Concepts (2/2)	3
FOURTH SEMESTER		
AUT 211	Automotive Emissions and Driveability Diagnosis (2/3)	3
AUT 221	Internship in Automotive Technology III	1
AUT 225	Automatic Transmission Service (2/3)	3
— —	Social Science elective or Humanities elective	3
SUMMER SESSION		
AUT 222	Internship in Automotive Technology IV	1
AUT 226	Electrified Vehicles (2/3)	3
IST 101	Computer Concepts with Applications (2/2)	
	OR	3
IST 102	Computer Concepts with Programming (2/2)	
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.	3
		66

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

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Aviation Flight Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **AVI.FLT.AAS**
CIP 490102

The **Aviation Flight Technology** program is accredited by the Aviation Accreditation Board International and provides flight instruction for the Private and Commercial certificates and Instrument rating. MCCC operates flight instruction in accordance with Air Agency Certification issued to the college by the Federal Aviation Administration (FAA).

In order to complete the program, every student must successfully pass the FAA Private, Commercial, and Instrument computer examinations and be certified as a commercial pilot with instrument rating. Ninety-seven percent of Mercer's students have passed the examinations on the first attempt.

MCCC has approved examining authority for FAA computer tests which can be conducted at the college. Additionally, the college has examining authority to conduct flight tests for the issuance of private and commercial pilots' licenses as well as the instrument and multiengine ratings.

PROGRAM OUTCOMES

- Obtain the appropriate ground and flight certificates;
- Fill related aviation positions requiring specific aviation knowledge with airport service operators located at numerous airports in the United States and possessions.

Most aviation courses are offered during the day, and certain ones may be available during the evening as well as online. The program maintains a number of articulation agreements with four-year colleges and universities for students who wish to transfer their credits.

Students in the Aviation Flight Technology program receive classroom and laboratory instruction on the West Windsor Campus. Actual flight training takes place with our flight training partner at Trenton-Mercer County Regional Airport, where the college has access to a fleet of aircraft and supervises the flight instructors.

An active advisory commission consisting of experts from the government and civilian areas of aviation recommends changes necessary to maintain a quality program.

Admission to the program requires a high school diploma with one year of algebra. High school courses in trigonometry and physics are an advantage. Proof of citizenship or Transportation Security Administration approval is required for enrollment in the Flight program. Before flight training begins, a minimum of a second-class aviation medical will be required. Contact the Aviation program coordinator for details. Flight fees required.

Graduates of the program often return to take a flight training course toward the certified flight instructor rating.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
AVI 112	Primary Flight	2
AVI 131	Commercial Pilot I	3
CSA 100	College Success for Aviation	2
ENG 101	English Composition I	3
MAT 115	Algebra and Trigonometry I	3
SECOND SEMESTER		
AVI 113	Flight I	2
CMN 111/ CMN 112	Speech: Human Speaking / Public Speaking	3
IST 101	Computer Concepts and Applications	3
AVI 105	Aviation Weather	3
THIRD SEMESTER		
SOC 101	Introduction to Sociology	
	OR	3
SOC 101	Introduction to Psychology	
AVI 114	Flight II	2
AVI 132	Commercial Pilot II	3
PHY 111	Physical Science Concepts	
	OR	3
PHY 109	Fundamentals of Physics	
	OR	3
BIO 113	Biological Science Concepts	
	OR	3
BIO 114	Environmental Science Concepts	
	OR	3
CHE 106	Chemical Science Concepts	
	OR	3
CHE 100	Introductory Chemistry	
	OR	3
SUS 101	Introduction to Sustainability	
	OR	
PHY 121	Astronomy	
AVI 101	Aerospace Development	3
FOURTH SEMESTER		
AVI 240	Flight III	2
AVI 208	Aviation Seminar	1
AVI 231	Commercial Pilot III	3
GEN ED	General Education Elective	3
AVI 203	Aircraft Components	3
FIFTH SEMESTER		
AVI 102	Aviation Transportation	3
AVI 215	Aerodynamics	3
AVI 270	Flight VI	4
		60

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Aviation Flight Technology (cont'd)

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

2026 – 2027 Flight Fees

Course	Flight Hours included in Cost	Flight Fee Cost	Fuel Surcharge Fall 2022
AVI 112	23	$8,317.00	$460
AVI 113	30	$10,376.00	$600
AVI 114	54	$18,636.00	$1,080
AVI 240	52	$18,129.00	$1,040
AVI 270	48.8	$27,590.00	$1,648

Flight Training Fees for Aviation Technology

Mercer County Community College's Aviation Flight Technology A.A.S. degree program is designed to provide full private, commercial, and instrument flight training in as little as two years. The total estimated flight training fees will vary depending upon program training coursework required towards certification and licensing and are subject to change without notice. Since these courses are skill based, additional time is often need to meet FAA certification requirements. See the chart below for hourly charges for additional time needed to complete the program. Further information on flight fees and this degree program is available from the Aviation program coordinator in the Business, Technology, and Professional Studies division office on the West Windsor campus.

Aircraft	Hourly Rate	Hourly Fuel Surcharge Fall 2025
C172S	$266.00	$20
PA-44 Seminole	$489.00	$40
Flight /Ground Instruction	**Hourly Rate**	
Single Engine Training	$79.00	
Multi-Engine Training	$90.00	

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Aviation Flight Technology
Rotorcraft Transition Program (RTP) concentration
ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **CPA.ACC26.CERT**
CPA.BUS24.CERT
CIP 520303

The RTP concentration is separate from AABI accreditation.

Students with an FAA Helicopter Commercial/ Instrument Certificate should enroll in the Rotorcraft Transition Program (RTP) concentration.

The **Rotorcraft Transition Program (RTP)** concentration of the Aviation Flight Technology A.A.S. degree program completes the educational and flight training requirements for commercial/ instrument rated helicopter pilots to be eligible for employment with a regional airline as a professional pilot.

MCCC operates flight instruction in accordance with Air Agency Certification issued to the college by the FAA.

PROGRAM OUTCOMES

- Obtain the appropriate ground and flight certificates;
- Eligibility for a position with a regional airline to begin their ATP training

Along with proof of citizenship or Transportation Security Administration approval, enrollment in the flight program requires the student to possess an FAA commercial/instrument helicopter rating. Before flight training begins, an aviation medical will be required. Contact the aviation program coordinator for details.

Flight fees are required. AVI 216, 217, 250, and 251 are six-week courses; all others follow the standard semester schedule or may be taken online as applicable. Credit for prior experience will be evaluated by the program coordinator.

Concentration Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
AVI 101	Aerospace Development	3
AVI 102	Aviation Transportation	3
ENG 101	English Composition	3
MAT ELECT	Math Elective of 100 level or higher	3
HPE 111	Living with Health	3
SECOND SEMESTER		
AVI 216	Flight V	4
ENG 102	English Composition II	3
CMN 112	Public Speaking	
	OR	3
CMN 111	Introduction to Communications	
AVI 105	Aviation Weather	3
AVI 250	ATP Prep I	6
THIRD SEMESTER		
SOC 101/ PSY 10	Introduction to Sociology / Introduction to Psychology	3
AVI 203	Aircraft Components	3
AVI 208	Aviation Seminar	1
PHY 111	Physical Science Concepts	
	OR	3
PHY 109	Fundamentals of Physics	
	OR	3
BIO 113	Biological Science Concepts	
	OR	3
BIO 114	Environmental Science Concepts	
	OR	3
CHE 106	Chemical Science Concepts	
	OR	3
CHE 100	Introductory Chemistry	
	OR	3
SUS 101	Introduction to Sustainability	
	OR	
PHY 121	Astronomy	
FOURTH SEMESTER		
AVI 251	ATP Prep II	3
AVI 215	Aerodynamics	3
GEN ED	General Education Elective	3
AVI 217	Flight VI (1/45	1
		60

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Aviation Flight Technology
Rotorcraft Transition Program (RTP) concentration
ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **CPA.ACC26.CERT**
CPA.BUS24.CERT
CIP 520303

2026 – 2027 Flight Fees

Course	Flight Hours included in Cost	Flight Fee Cost	Fuel Surcharge Fall 2022
AVI 216	82.0	$32,039.00	$1,840
AVI 217	16.8	$10,618.00	$672
AVI 250	126.0	$36,891.00	$2,520
AVI 251	51.5	$14,283.00	$1,030

Flight Training Fees for Aviation Technology

Mercer County Community College's Aviation Flight Technology A.A.S. – RTP concentration is designed to provide transition training to fixed wing aircraft for commercial/instrument rated helicopter pilots, multi-engine certification, and flight time building. At the end of this program, the student will have the minimum fixed wing flight time needed to be hired by a regional airline. The flight courses are accelerated courses and are designed to be completed in 21 weeks. The total estimated flight training fees will vary depending upon program training coursework required towards certification and licensing and are subject to change without notice. Since these courses are skill based, additional time is often need to meet FAA certification requirements. See the chart below for hourly charges for additional time needed to complete the program. Further information on flight fees and this certification program is available from the Aviation Program Coordinator.

Aircraft	Hourly Rate	Hourly Fuel Surcharge Fall 2025
C172S	$266.00	$20
PA-44 Seminole	$489.00	$40
Flight /Ground Instruction	**Hourly Rate**	
Single Engine Training	$79.00	
Multi-Engine Training	$90.00	

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Aviation Management

ASSOCIATE IN SCIENCE DEGREE (A.S.)

The **Aviation Management** program provides students with a background in business administration and related technical knowledge in aviation. In most cases, the graduate of this program should seek a four-year baccalaureate degree. Aviation management has evolved into a career discipline that requires a variety of skills.

PROGRAM OUTCOMES

- Utilize business information processing systems to improve management control in aviation businesses;
- Interpret financial statements and prepare budgets;
- Perform staff functions in marketing, sales, and general management with aviation-related businesses;
- Interpret and apply Federal Aviation Administration regulations and procedures to aviationrelated businesses.

There are direct transfer options with Embry-Riddle Aeronautical University, Metropolitan State College, St. Francis College, Southern Illinois University, Thomas Edison State College, and Florida Institute of Technology. Although many graduates transfer to four-year colleges, graduates also enter the private sector in entry-level management positions with manufacturers, airline authorities, airport service operations, commuter air services, and corporate flight operations.

Students may study full-time or part-time. Most courses are offered during the day and evening. Admission to the program requires a high school diploma or its equivalent with two years of high school math.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
AVI 101	Aerospace Development (3/0)	3
BUS 101	Introduction to Business (3/0)	3
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
PSY 101	Introduction to Psychology (3/0)	3
SECOND SEMESTER		
ACC 111	Principles of Financial Accounting (4/0)	4
AVI 102	Aviation Transportation (3/0)	3
ENG 102	English Composition II (3/0)	3
MAT 146	Pre-Calculus (4/0)	4
MKT 101	Principles of Marketing (3/0)	3
THIRD SEMESTER		
ACC 112	Principles of Managerial Accounting (4/0)	4
BUS 210	Principles of Management (3/0)	3
ECO 111	Macroeconomics (3/0)	3
PHY 111	Physical Science Concepts (2/2)	3
— —	Humanities general education elective	3
FOURTH SEMESTER		
AVI 208	Aviation Seminar (1/0)	3
BUS 107	Business Law I (3/0)	3
CMN 111	Speech: Human Communication (3/0)	3
ECO 112	Microeconomics (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

Business, Technology, and Professional Studies Division

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Biology

ASSOCIATE IN SCIENCE DEGREE IN LIBERAL ARTS AND SCIENCES (A.S.)

The **Biology** option of the Liberal Arts and Sciences program primarily prepares graduates for transfer into the junior year of programs such as ecology, conservation, biology, microbiology, pharmacy, forestry, entomology, genetics, biotechnology, and preprofessional fields of medicine and dentistry. Biology graduates have transferred to colleges throughout Pennsylvania, New Jersey and the northeast, including Rider University, Temple University, Cornell University, Rutgers University, Stockton College, The College of New Jersey, and Rowan University.

Graduates earning a four-year degree have been employed by various research institutes and industries. Others have successfully completed medical, dental, chiropractic, pharmaceutical, physical/occupational therapy, physician's assistant, veterinary medicine, and other graduate programs.

The biology facilities include specially equipped laboratories for microbiology, genetics/molecular biology, and anatomy/physiology. Students learn a wide variety of investigative techniques, including microscopy, spectrophotometry, and gel electrophoresis. Real-life systems are studied through field trips to sites in the New Jersey Pinelands and elsewhere. A special honors sequence affords eligible students the opportunity to participate in a research project under the supervision of faculty at nearby Rider University, Monmouth University, or Princeton University as well as other research institutions.

PROGRAM OUTCOMES

- Demonstrate an understanding of the fundamental principles, concepts, and terminology of biology;
- Explain the structures and fundamental processes of life at molecular, cellular, and organismal levels;
- View the living world with greater understanding, insight, and appreciation as it relates to the field of biology and contemporary problems and issues;
- Demonstrate the ability to apply the scientific method of inquiry to gather and use information for the purposes of critical thinking, information analysis, and problem solving;
- Exhibit proficiency in the laboratory and in the field by using standard equipment and measurement and observation techniques that allow one to gather, analyze, and interpret qualitative data.

Most courses may be completed through part-time study in the evening. Course selection and program of study must be approved by an academic advisor.

Admission to the Biology option requires a high school diploma or equivalent with at least one year of science (biology, chemistry, or physics) and two years of academic mathematics. Successful completion of the Biology option results in the award of the Associate in Science degree in Liberal Arts and Sciences.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BIO 101	General Biology I (3/3)	4
CHE 101	General Chemistry I (3/3)	4
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
MAT 146	Pre-Calculus (4/0)	4
SECOND SEMESTER		
BIO 102	General Biology II (3/3)	4
CHE 102	General Chemistry II (3/3)	4
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
ENG 102	English Composition II (3/0)	3
THIRD SEMESTER		
BIO —	Biology elective Select from BIO 201, 202, 203, 204, 208.	4
— —	Technical elective Select from any 200-level Biology (BIO) or Chemistry (CHE) course; COS 101, 102; MAT 151, 152, 201, 252; PHY 101, 102, 115, 215.	4
— —	Humanities general education elective	3
— —	Social Science general education elective	3
FOURTH SEMESTER		
BIO —	Biology elective Select from BIO 201, 202, 203, 204, 208	4
— —	Technical elective Select from any 200-level Biology (BIO) or Chemistry (CHE) course; COS 101, 102; MAT 151, 152, 201, 252; PHY 101, 102, 115, 215.	4
— —	Technical elective Select from any 200-level Biology (BIO) or Chemistry (CHE) course; COS 101, 102; MAT 151, 152, 201, 252; PHY 101, 102, 115, 215.	4
— —	Social Science or Humanities general education elective	3
		60

NOTE: Biology majors must earn a minimum grade of C in all BIO courses, including those applied as Technical electives.

Science, Health Professions, and Nursing Division

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Bookkeeping

CERTIFICATE OF ACHIEVEMENT

PROGRAM OUTCOMES

- Create and analyze accounting reports
- Use terminology common to the business environment for effective communication
- Analyze/resolve problems common to small businesses

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I	3
ACC 106	Office Accounting	3
SECOND SEMESTER		
BUS 209	Business Communication	3
CIS 105	Excel Basics	1
ACC 207	Computerized Accounting	3
ACC 111	Financial Accounting	4
		17

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Business Administration

ASSOCIATE IN SCIENCE DEGREE (A.S.)

Programs **BUS.ADM.AS**
CIP 520201

The **Business Administration** program is designed for the student who plans to earn a business-related baccalaureate degree at a four-year college or university. Eighty percent of graduates successfully transfer to four-year colleges. Direct transfer options accommodate transfer to many in-state and out-of-state institutions.

Graduates of the program demonstrate competencies in introductory courses in accounting, business law, economics, and statistics as well as other business-related courses consistent with acceptance into junior status at a four-year college.

Graduates have transferred to colleges and universities nationwide, including Rutgers University, Rider University, The College of New Jersey, Drexel University, Temple University, and New York University. The Rutgers Business School has an additional articulation agreement for MCCC Honors students.

PROGRAM OUTCOMES

- Formulate an analytical and quantitative approach to problem solving;
- Demonstrate an understanding of the role of U.S. business in a globalized society;
- Acquire effective business communication skills, including computer literacy;
- Develop the foundation necessary to continue studies in fields such as economics, finance, accounting, management, marketing, and human resources;
- Use the economic way of thinking in everyday life.

Students may study full-time or part-time. Business Administration students who cannot attend on weekdays can complete their degree requirements with evening, weekend, and MercerOnline classes offered with Mercer's Flexible Learning option.

Many core courses required for the Business Administration degree are offered on weekends, most in an accelerated eight-week format. Students can accelerate their degree completion by taking two eight-week courses instead of one 14-week course during a semester. Students attending weekend classes on an accelerated basis along with night and distance learning courses could potentially finish their Business Administration degree within the same time frame as a full-time traditional student.

Admission to the Business Administration program requires a high school diploma or its equivalent. A strong background in mathematics is very helpful.

Students interested in pursuing a Supply Chain Management or Finance major at Rider University upon graduation from MCCC should consider the Rider/MCCC Dual Admissions program and consult their academic advisor or transfer counselor upon beginning the Business Administration program for requirements unique to Rider.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CSB 100	College Success and Wellness for Business (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
BUS 107	Business Law I (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	
	OR Select in consultation with an academic advisor and your intended transfer institution, which may require IST 102.	3
IST 102	Computer Concepts with Programming (2/2)	
— —	Humanities general education elective	3
SECOND SEMESTER		
MAT 146	Pre-Calculus (4/0) Students who are not college-ready in mathematics should meet with an advisor to develop an academic plan no later than the first semester. Math classes in preparation for MAT 146 should be taken as soon as possible.	4
ACC 111	Principles of Financial Accounting (4/0)	4
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
ENG 102	English Composition II (3/0)	3
— —	Lab Science general education elective BIO 114 not acceptable. Select in consultation with an academic advisor and your intended transfer institution.	3
THIRD SEMESTER		
ACC 112	Principles of Managerial Accounting (4/0)	4
BUS 205	Business Statistics I (3/0)	3
BUS 210	Principles of Management (3/0) BUS 218, 244, or MKT 101 are acceptable substitutes.	3
ECO 111	Macroeconomics (3/0)	3
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0) Consult your intended transfer institution to determine if MAT 149 is an acceptable substitute.	4
FOURTH SEMESTER		
BUS 206	Business Statistics II (3/0)	3
BUS 230	Global Environment of Business (3/0)	3
ECO 112	Microeconomics (3/0)	3
— —	General Education elective Select course from the following general education categories: Social Science (excluding ECO 103), Humanities, Historical Perspective, Diversity and Global Perspective.	3
		60

NOTE: Rutgers Business School - New Brunswick requires IST 102 and MAT 151.

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Business Administration
Global Business Concentration
ASSOCIATE IN SCIENCE DEGREE (A.S.)

Programs **BUS.ADM.GLB.AS**
CIP 520201

Business Administration students who would like to pursue future studies in international business should consider the Business Administration concentration in **Global Business** (BUS.ADM.GLB.AS). This option enables students to tailor their general education electives toward international topics.

Since completion of this curriculum demonstrates commitment to an international business specialization, students pursuing this concentration have an advantage when applying to a four-year international business program. A.S. degree coursework emphasizing the issues of a globalized world provides students with the necessary foundation to pursue further studies in international business at a four-year institution.

Concentration Curriculum

Global Business

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CSB 100	College Success and Wellness for Business (2/0) Some exemptions apply. Consult academic advisor for details.	2
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
ENG 101	English Composition I (3/0)	3
— —	Historical Perspective or Humanities general education elective Select from ENG 203, 204, 214; HIS 101, 102, 112, 113, 218; REL 102.	3
— —	World Language general education elective It is highly recommended that both electives be in the same language.	3
SECOND SEMESTER		
BUS 230	Global Environment of Business (3/0)	3
ENG 102	English Composition II (3/0)	3
MAT 146	Pre-Calculus (4/0)	4
— —	Lab Science general education elective	3
— —	World Language general education elective It is highly recommended that both electives be in the same language.	3
THIRD SEMESTER		
ACC 111	Principles of Financial Accounting (4/0)	4
BUS 205	Business Statistics I (3/0)	3
ECO 111	Macroeconomics (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	
	OR	3
IST 102	Computer Concepts with Programming (2/2)	
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0)	
	OR	4
MAT 149	Calculus (4/0)	
FOURTH SEMESTER		
ACC 112	Principles of Managerial Accounting (4/0)	4
BUS 206	Business Statistics II (3/0)	3
ECO 112	Microeconomics (3/0)	3
— —	Historical Perspective or Humanities general education elective Select from ENG 203, 204, 214; HIS 101, 102, 112, 113, 218; REL 102.	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits

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NOTE: All program listings are subject to periodic updates.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_degree**

Business Administration
Sports Management Concentration
ASSOCIATE IN SCIENCE DEGREE (A.S.)

Students intending to pursue their bachelor's degree in sports management should consider Business Administration with a concentration in **Sports Management** (BUS.ADM.SPRTS.AS), completing a degree program that includes courses in accounting, management, marketing, economics, and computer applications.

PROGRAM OUTCOMES

- Demonstrate critical thinking and problem-solving skills;
- Demonstrate knowledge of technology and its use in sports management;
- Demonstrate a concern for the societal issues involved in sports management;
- Demonstrate knowledge of management, legal issues, and sports marketing.

Concentration Curriculum

Sports Management

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
CSB 100	College Success and Wellness for Business (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	
	OR	3
IST 102	Computer Concepts with Programming (2/2)	
— —	Diversity and Global Perspective or Humanities general education elective	3
SECOND SEMESTER		
ACC 111	Principles of Financial Accounting (4/0)	4
BUS 210	Principles of Management (3/0)	3
ENG 102	English Composition II (3/0)	3
MAT 146	Pre-Calculus (4/0)	4
PSY 101	Introduction to Psychology (3/0)	3
THIRD SEMESTER		
ACC 112	Principles of Managerial Accounting (4/0)	4
BUS 102	Introduction to Sports Management (3/0)	3
CIS 105	Excel Basics (1/0)	1
ECO 111	Macroeconomics (3/0)	3
— —	Lab Science general education elective Select from the course categories of BIO, CHE, or PHY.	3
FOURTH SEMESTER		
BUS 205	Business Statistics I (3/0)	3
ECO 112	Microeconomics (3/0)	3
MKT 106	Introduction to Sports Marketing (3/0)	
	OR	3
MKT 101	Principles of Marketing (3/0)	
SOC 101	Introduction to Sociology (3/0)	3
— —	Humanities general education elective	3
		60

NOTE: Upon beginning this program, students planning to transfer to the Rutgers University Sports Management program should consult their academic advisor or transfer counselor for requirements unique to Rutgers.

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Business Administration
Financial Technology Concentration
ASSOCIATE IN SCIENCE DEGREE (A.S.)

The A.S. degree in Business Administration, with a concentration in Financial Technology (FinTech), is designed for students with a keen interest in pursuing a career in the field of FinTech. It provides a solid foundation for future studies in FinTech or Business Administration at a four year institution. This program combines rigorous core courses with specialized electives to equip Business Administration students with the skills and knowledge essential for thriving in the dynamic and evolving field of FinTech

PROGRAM OUTCOMES

- Comprehensive Understanding of FinTech Concepts: Develop a strong foundation in traditional business, technology, and finance coursework.
- Technical Skill Development: Acquire practical skills in data analytics and financial management.
- Adaptability to Industry Trends: Stay current with industry trends and emerging technologies in business.
- Preparation for Further Studies:Provide a solid foundation for students interested in pursuing a four-year degree in Business Administration
- Facilitate a seamless transition for graduates to continue their education in specialized areas of FinTech.

Concentration Curriculum

Financial Technology

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
MAT 151	Calculus I (4/0)	4
ENG 101	English Composition I (3/0)	3
CSB 100	College Success and Wellness for Business (2/0) Some exemptions apply. Consult academic advisor for details.	2
COS 102	Computer Science I: Algorithms (3/2)	4
— —	Humanities general education elective	3
SECOND SEMESTER		
ACC 111	Principles of Financial Accounting (4/0)	4
BUS 210	Principles of Management (3/0)	3
ENG 102	English Composition II (3/0)	3
BUS 205	Business Statistics I (3/0)	3
ECO 111	Macroeconomics (3/0)	3
THIRD SEMESTER		
BUS 206	Business Statistics II (3/0)	3
IST 275	Data Visualization (3/0)	3
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
ECO 112	Macroeconomics (3/0)	3
MKT 101	Principles of Marketing (3/0)	3
FOURTH SEMESTER		
BUS 230	Global Environment of Business (3/0)	3
BUS 218	Financial Management (3/0)	3
BUS 107	Business Law I (3/0)	3
— —	Lab Science general education elective	4
		60

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Business Studies

ASSOCIATE IN APPLIED SCIENCE DEGREE IN BUSINESS MANAGEMENT (A.A.S.)

Programs **BUS.STUD.AAS**
BUS.STUD.SYST.AAS
BUS.STUD.ENTR.AAS
BUS.STUD.MGMT.AAS
BUS.STUD.SFTW.AAS
CIP 520101

Business Studies, a career and non-transferable degree program, provides opportunities for students to prepare for a wide variety of careers in business.

Students have the option of pursuing a general degree in Business Studies or selecting one of four concentrations, each comprised of 15 credits and designed to prepare students for specialty areas: Business Systems, Entrepreneurship, Management, Software Professional. Students should contact the program coordinator for advisement

PROGRAM OUTCOMES

- Use effective verbal and written communication in conducting business;
- Analyze/resolve problems common to entry-level business positions;
- Apply management skills in a variety of business functions;
- Comprehend how the global economy and international events affect domestic and international business decisions;
- Understand basic accounting statements and their role in managing a business;
- Identify unethical behavior in a business setting and formulate appropriate action;
- Understand, analyze, and discuss current economic events and problems;
- Acquire computer literacy and exposure to hardware, software, networking, databases, and ethical issues;
- Apply financial concepts and tools to achieve personal goals.

Students may study full-time or part-time. Admission to the Business Studies program requires a high school diploma.

Business Studies students interested in pursuing bachelor's degree studies in labor or management should consider the Rutgers School of Labor and Management program on the MCCC campus.

Concentrations

The **Business Systems** concentration (BUS.STUD.SYST.AAS) prepares students for positions as help desk specialists, general office managers, or PC systems administrators in small to mid-sized firms. Students focus their degree based on individual professional needs, building upon the competencies gained from the general Business Studies program.

The **Entrepreneurship** concentration (BUS.STUD.ENTR.AAS) prepares students to own a small business. Students interested in forming their own enterprise, taking on a franchise, or purchasing an existing small business would benefit from this concentration, building upon the competencies gained from the general Business Studies program.

The **Management** concentration (BUS.STUD.MGMT.AAS) prepares students for positions as general office managers, retail sales managers, or supervisors in mid- to large-sized firms. Students focus their degree based on individual professional needs, building upon the competencies gained from the general Business Studies program.

The **Software Professional** concentration (BUS.STUD.SFTW.AAS) prepares students for entry-level positions as general office managers, administrative professionals, executive assistants, office support staff, or supervisors in small to mid-sized firms. Students focus their degree based on individual professional needs, building upon the competencies gained from the general Business Studies program.

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Business Studies
with Concentrations
ASSOCIATE IN APPLIED SCIENCE DEGREE IN BUSINESS MANAGEMENT (A.A.S.)

Programs **BUS.STUD.AAS**
BUS.STUD.SYST.AAS
BUS.STUD.ENTR.AAS
BUS.STUD.MGMT.AAS
BUS.STUD.SFTW.AAS
CIP 520101

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BUS 101	Introduction to Business (3/0)	3
CIS 105	Excel Basics (1/0)	1
CMN 111	Speech: Human Communication (3/0)	
	OR	4
CMN 112	Public Speaking (3/0)	
CSB 100	College Success and Wellness for Business (2/0) For Business Studies majors taking classes exclusively online, CSW 100 is an acceptable substitute. Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
SECOND SEMESTER		
ACC 106	Office Accounting I (3/0)	3
BUS 209	Business Communications (3/0)	3
BUS 210	Principles of Management (3/0)	3
BUS 230	Global Environment of Business (3/0)	3
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Diversity and Global Perspective.	3
THIRD SEMESTER		
BUS 109	Personal Finance (3/0)	3
ECO 103	Basic Economics (3/0)	3
ENG 102	English Composition II (3/0)	
IST 101	Computer Concepts with Applications (2/2)	
	OR	3
IST 140	The Internet and Computer Technology (2/2)	
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Diversity and Global Perspective.	3
FOURTH SEMESTER		
— —	Concentration/Business electives	3
— —	If pursuing a **general degree in Business Studies**, choose four business electives from the options below.	3
— —	If pursuing a **Business Studies concentration**, select three electives from either the Business Systems, Entrepreneurship, Management, or Software Professional concentrations (lower on page) and one of the following courses for a total of four electives. ACC 207; 111; BUS 107, 108, 202, 225, 239, 240; CIS 112, 173, 175, 182; IST 140; MKT 101, 230; NET 102, 103, 104;	3
BUS 225	Employee Motivation and Leadership (3/0)	3
	OR Capstone course, to be taken as final course in the curriculum.	3
BUS 239	Entrepreneurship (3/0)	4
		60

Curriculum

Code	Course (lecture/lab hours)	Credits
Business Systems CONCENTRATION electives		
CIS 173	PC Applications: Database (2/2)	3
CIS 175	PC Applications: Spreadsheets (2/2)	3
NET 102	Introduction to PC Hardware and Software (2/3)	3
NET 103	IT Essentials (2/3)	3
NET 104	Fundamentals of Computer Networks (2/2)	3
Entrepreneurship CONCENTRATION electives		
ACC 207	Computerized Accounting (2/2)	3
BUS 107	Business Law (3/0)	3
BUS 202	Consumer Orientation (3/0)	3
BUS 239	Entrepreneurship (3/0)	3
MKT 101	Principles of Marketing (3/0)	3
Management CONCENTRATION electives		
BUS 107	Business Law (3/0)	3
BUS 202	Consumer Orientation (3/0)	3
BUS 225	Employee Motivation and Leadership (3/0)	3
BUS 240	Human Resource Management (3/0)	3
MKT 101	Principles of Marketing (3/0)	3
MKT 230	Principles of Retailing (3/0)	3
Software Professional CONCENTRATION electives		
CIS 173	PC Applications: Database (2/2)	3
CIS 175	PC Applications: Spreadsheets (2/2)	3
IST 140	The Internet and Computer Technology (2/2)	3

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Catering Management

CERTIFICATES OF PROFICIENCY

The **Catering Management** Certificate of Proficiency prepares individuals to operate their own catering/ banquet business and to work effectively in the profession. Graduates have skills to coordinate the various culinary, artistic and business activities required to be successful in the catering industry. The program enables students to create successful menus for their customers, together with the ability to purchase and price supplies and services profitably.

Admission to the program requires a high school diploma or its equivalent.

PROGRAM OUTCOMES

- Demonstrate a wide variety of culinary skills;
- Develop cost-effective, customer-accepted menus;
- Plan and organize a catered activity;
- Apply safe and sanitary practices in preparing and serving culinary creations;
- Assess the needs of and have the ability to purchase food and non-food supplies for the catering operation;
- Practice legal and financial management aspects of catering;
- Create high-quality food products with artistic designs;
- Prepare a feasibility study and business plan;
- Demonstrate management and organizational skills.

Curriculum

Code	Course (lecture/lab hours)	Credits
ACC 111	Principles of Financial Accounting (4/0)	4
HOS 100	Hospitality Success Skills (1/0)	1
HOS 101	Food Preparation I (1/4)	3
HOS 111	Culinary Math (1/0)	1
HOS 118	Sanitation and Safety in Food Service Operations (2/0)	2
HOS 203	Hospitality Purchasing (3/0)	3
HOS 267	Event Planning (3/0)	3
BUS 239	Entrepreneurship (3/0)	3
ENG 101	English Composition I (3/0)	2
HOS 102	Food Preparation II (1/4)	3
HOS 115	Food and Culture (2/2)	3
HOS 210	Applied Kitchen Skills – Cafe (1/4)	3
HOS 287	Hotel/Restaurant Management Internship	2
		33

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Chemistry

ASSOCIATE IN SCIENCE DEGREE IN LIBERAL ARTS AND SCIENCES (A.S.)

Programs **CHEM.AS**
CIP 240101

The **Chemistry** option of the Liberal Arts and Sciences program prepares students for transfer into baccalaureate programs leading to careers in fields such as pharmaceuticals, industrial chemistry, chemical engineering, chemical sales and service, environmental technology, food science, medicine, and education.

Chemistry graduates have transferred to institutions throughout the region, including Rutgers University, Rider University, The College of New Jersey, Temple University, Rowan University, and more. Graduates earning a four-year degree have secured employment in local laboratories including those of Bristol-Myers Squibb, Johnson & Johnson, New Jersey State Police, Medical Diagnostics Laboratory (MDL), Genesis Biotechnology Group (GBG), and elsewhere.

Students routinely use electronic balances; IR, UV, visible and NMR spectrophotometers; pH meters; GC; calorimeters; lasers; and other electronic devices in the laboratory. Computer applications for data collection and analysis are introduced in the General Chemistry sequence. Other software packages assist students with the mastery of concepts and problem-solving skills.

Second-year courses introduce specialized instrumentation for chromatographic separations and spectroscopic identification of compounds using gas chromatographs and infrared spectrophotometer. MCCC and Rider University are principal partners in a National Science Foundation project to give Mercer students Internet access to Rider's 300Mz FTNMR for spectral analyses. An honors sequence allows students to conduct research under the supervision of Rider University or Princeton University faculty as well as at other research institutions.

PROGRAM OUTCOMES

- Demonstrate an understanding of the fundamental principles, concepts, and terminology of chemistry;
- Develop a working knowledge of chemical principles and methods including problem solving, analytical reasoning, and laboratory skills;
- Utilize critical thinking, qualitative, and quantitative reasoning skills to organize, evaluate, and interpret data, expressing the results in a clearly written laboratory report or oral presentation;
- Conduct literature searches and communicate findings orally and in writing;
- Plan, execute, and interpret an experiment according to the Scientific Method using proper scientific and laboratory safety procedures and maintaining an accurate and complete laboratory notebook.

Part-time evening study is encouraged for those who are currently employed. Course selection and program of study must be approved by an academic advisor.

Admission to the Chemistry option requires a high school diploma or equivalent with at least one year of science (biology, chemistry, or physics) and two years of academic mathematics. Students who complete the Chemistry option earn the Associate in Science degree in Liberal Arts and Sciences.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
CHE 101	General Chemistry I (3/3)	4
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
— —	Technical elective Select from any 200-level Biology (BIO), Chemistry (CHE), or Physics (PHY) course; BIO 101, 102; COS 101, 102; PHY 101, 102, 115.	4
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
CHE 102	General Chemistry II (3/3)	4
— —	Technical elective Select from any 200-level Biology (BIO), Chemistry (CHE), or Physics (PHY) course; BIO 101, 102; COS 101, 102; PHY 101, 102, 115.	4
— —	Humanities general education elective	3
THIRD SEMESTER		
CHE 201	Organic Chemistry I (3/4)	5
MAT 151	Calculus I for the Mathematical and Physical Sciences	4
— —	Technical elective Select from any 200-level Biology (BIO), Chemistry (CHE), or Physics (PHY) course; BIO 101, 102; COS 101, 102; PHY 101, 102, 115.	4
— —	Social Science general education elective	3
FOURTH SEMESTER		
CHE 202	Organic Chemistry II (3/4)	5
MAT —	Mathematics elective Select from MAT 152, 201, 208, 251, 252	4
— —	Technical elective Select from any 200-level Biology (BIO), Chemistry (CHE), or Physics (PHY) course; BIO 101, 102; COS 101, 102; PHY 101, 102, 115.	4
— —	Social Science or Humanities general education elective	3
		60

NOTE: Chemistry majors must earn a minimum grade of C in all CHE courses.

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Civil Engineering Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The **Civil Engineering Technology** program prepares students for employment in field and office positions with architects, engineers, and government agencies as engineering aides; construction, highway or materials technicians; transit operators; or estimators.

PROGRAM OUTCOMES

- Assist engineers in the preparation of designs for highways and for steel and concrete buildings and bridges;
- Function as a first-line supervisor at a construction site;
- Inspect highways during construction to ensure compliance with applicable specifications;
- Perform route/construction surveys using survey equipment and methods;
- Serve as a laboratory technician in the testing and analysis of various construction materials;
- Serve as a salesperson/technician in supplying construction materials;
- Prepare various construction and civil engineering drawings, both manually and with a computer-based drafting system.

MCCC is located near the central offices of many New Jersey governmental agencies. Graduates have found employment in county, state, and municipal departments of engineering and with many local civil engineering consultants. Cooperative education opportunities may be available.

Admission requires a high school diploma or its equivalent with one year of algebra. Students may study full-time or part-time, but some required courses may be offered only during evening hours.

Graduates wishing to pursue studies leading to a bachelor's degree can transfer into the junior year at many institutions. Temple University, New Jersey Institute of Technology (NJIT), Pennsylvania State University, and Fairleigh Dickinson University are among the institutions accepting Mercer graduates.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CIV 105	Introduction to Engineering (1/0)	1
DRA 190	Introduction to Computer-Aided Drafting (1/2)	2
ENG 101	English Composition I (3/0)	3
MAT 146	Pre-Calculus (4/0)	4
— —	Science elective This requirement may be satisfied with PHY 111 plus one other Science general education elective. Students planning to earn a bachelor's degree should take PHY 101 and 102 to satisfy the requirement.	4
SECOND SEMESTER		
CIV 101	Surveying I (2/3)	3
CIV 106	Mechanics (3/0)	3
ENG 102	English Composition II (3/0)	3
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0)	4
— —	Science elective This requirement may be satisfied with PHY 111 plus one other Science general education elective. Students planning to earn a bachelor's degree should take PHY 101 and 102 to satisfy the requirement.	4
THIRD SEMESTER		
CIV 223	Fluid Mechanics (3/3)	5
CIV 227	Structural Steel Design (2/3)	4
CIV 229	Mechanics of Materials (3/3)	4
— —	Social Science or Humanities general education elective	3
FOURTH SEMESTER		
CIV 102	Surveying II (2/3)	3
CIV 216	Highway Engineering (2/2)	3
CIV 228	Reinforced Concrete Design (2/3)	3
IST 102	Computer Concepts with Programming (2/2)	
	OR	3
IST 109	Introduction to Programming (2/2)	
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

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Communication

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)

Programs **COMM.GEN.AA**
CIP 240101

The **Communication** program prepares students to transfer into a baccalaureate degree program. Designed to explore both theory and the development of practical skills, the core curriculum includes courses in oral communication, mass media, and media ethics as well as media production courses that introduce students to the creation process for audio and visual messages.

Students then choose electives that will further their interest of study. Choices to explore career paths in writing and communication processes are offered as well as courses in technical production.

PROGRAM OUTCOMES

- Analyze, evaluate, and critique the organizational design and delivery of all forms of communication;
- Create, develop, and synthesize messages that successfully deliver oral, electronic, and written communication to diverse multi-cultural audiences;
- Demonstrate effective techniques to manage communication anxiety and enhance message delivery through oral performance;
- Identify the nature and unique characteristics of intrapersonal, interpersonal, intercultural, group, organizational, and mass communication;
- Analyze, evaluate, and discuss the issues and ethical situations created by mediated messages.

Colleges and universities that students have transferred to include New York University, Rider University, The College of New Jersey, Fairleigh Dickinson University, Montclair State University, The University of Maryland, Rowan University, William Paterson University, Rutgers University, Temple University, and Syracuse University.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 101	Mass Media (3/0)	3
CMN 142	Introduction to Field Production (2/2)	3
CMN 151	Introduction to Radio (2/2)	3
ENG 101	English Composition I (3/0)	3
— —	Social Science general education elective	3
SECOND SEMESTER		
CMN 102	Media Issues and Ethics (3/0)	3
CMN 111	Speech: Human Communication (3/0)	
	OR	3
	Unselected course may not be applied as a Communication (CMN) elective.	
CMN 112	Public Speaking (3/0)	
ENG 102	English Composition II (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
CMN 146	Social Media Technologies (3/0)	3
THIRD SEMESTER		
CMN 214	Issues in Intercultural Communication in the U.S. (3/0)	
	OR	3
CMN 215	Communication and Gender (3/0)	3
CMN 125	Public Relations (3/0)	3
CMN —	Communication elective Select from **writing electives** CMN 144, 161, ENG 131; **career focused electives** CMN 122, 125, ENG 131; **media and production electives** CMN 107, 141, 142, 146, 151, 153, 157, 250; **general communication electives** CMN 201, 211, 214, 215.	3
ENG —	Humanities general education elective	3
— —	Lab Science general education elective	3
FOURTH SEMESTER		
CMN —	Communication elective Select from **writing electives** CMN 144, 161, ENG 131; **career focused electives** CMN 122, 125, ENG 131; **media and production electives** CMN 107, 141, 142, 146, 151, 153, 157, 250; **general communication electives** CMN 201, 211, 214, 215.	3
HIS —	Historical Perspective general education elective	3
MAT —	Mathematics elective Select any college-level MAT course. Students should consult the mathematics requirements of their intended transfer institution	3
	OR	
— —	Science general education elective	3
— —	Humanities: Aesthetic Appreciation general education elective	
— —	Social Science general education elective	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

NOTE: Students must earn a minimum grade of C in all ENG and CMN courses to graduate.

Arts and Communication Division
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Communication: Speech and Theatre

Programs **COMM.SPCH.THR.AA**
CIP 240101

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)

The **Communication: Speech and Theatre** option of the Liberal Arts and Sciences program prepares students to transfer as juniors into bachelor of arts programs in theatre, speech, and communication. The major offers students a creative edge in the marketable field of communication by exposing them to creative training in the performing arts.

Students planning careers in communications should choose elective subjects which best meet their educational needs. All students should determine the requirements of the institution to which they wish to transfer.

PROGRAM OUTCOMES

- Independently interpret dramatic literature for performance;
- Use a variety of acting, movement, and vocal techniques to craft a performance;
- Conduct research in preparation for performing a role or a prepared or extemporaneous speech;
- Work collaboratively with administrative, artistic, and production staff;
- Create successful auditions and/or interviews by preparing materials and exhibiting professional conduct;
- Develop communicative competencies in physical presentation, vocal variety techniques, and anxiety management skills to deliver prepared or extemporaneous speeches;
- Develop effective interpersonal and intrapersonal communication skills.

Successful graduates of the Communication: Speech and Theatre option customarily transfer to four-year institutions such as Temple University, Rider University, The College of New Jersey, and Rutgers University, among others.

The program may be pursued part- or full-time. Theatre courses are offered during the afternoon and early evening. Students are required to attend some day classes in order to complete the program. Admission requires a high school diploma or its equivalent.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
THR 101	Introduction to Theatre (3/0)	3
THR 104	Fundamentals of Acting (2/2)	3
— —	Social Science general education elective ANT 101 and PSY 101 recommended.	3
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
THR 105	Acting II: Principles of Characterization (2/2)	3
THR 210	Theatre History: Classical to Elizabethan (3/0)	3
HIS —	Historical Perspective general education elective HIS 112 and 113 recommended.	3
MAT —	Mathematics elective Select MAT 120 or 126 in consultation with an academic advisor.	3
THIRD SEMESTER		
CMN 101	Mass Media (3/0)	3
CMN 112	Public Speaking (3/0)	3
THR 212	Central Voices in World Drama (3/0)	3
HIS —	Historical Perspective general education elective HIS 112 and 113 recommended.	3
— —	Social Science general education elective ANT 101 and PSY 101 recommended.	3
FOURTH SEMESTER		
CMN 141	Introduction to TV Production (2/2)	
	OR	3
CMN 151	Introduction to Radio (2/2)	
DAN 101	Introduction to Dance and Culture (3/0)	3
THR 217	Theatre Production (1/5)	3
— —	Lab Science general education elective Select from among the course categories of BIO (excluding BIO 114 and 115), CHE, or PHY.	3
— —	Technology general education elective DMA 144 recommended.	3
		60

NOTE: Students who forego the courses recommended above should select all other electives in consultation with an academic advisor in order to assure maximum transfer of credits

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Computer Information Systems

ASSOCIATE IN SCIENCE DEGREE IN INFORMATION SYSTEMS (A.S.)

Programs **INFO.SYS.AS**
CIP 110201

The associate degree in Computer Information Systems, based on guidelines from the Association for Computing Machinery, prepares students for transfer to business- or technically-oriented four-year degree programs at the junior level.

Careers for graduates from related four-year degree programs include business application programmer, business process specialist, database administrator, information systems analyst, network engineer, and system sales associate.

PROGRAM OUTCOMES

- Transfer to a four-year college as a junior;
- Explain, interpret, and develop computer information policies and procedures;
- Create, edit, and use printed and online technical documentation and literature;
- Understand business organizations and practices, and the role of information technology in organizations;
- Develop, describe, understand, and apply network protocols and technology;
- Determine the feasibility of a computer information system, estimate its cost, and manage its implementation;
- Design, program, implement, and document a computer application or website to install and implement computer systems;
- Work effectively individually and in workgroups to install and implement information systems;
- Communicate in written documents and in oral presentations in technical or business settings.

Admission requires a high school diploma or equivalent, two years of high school algebra, geometry, and computer literacy. Applicants must demonstrate competency in English composition, reading and mathematics as determined by placement testing. Students who are required to complete foundations courses must plan their curriculum with an academic advisor.

Mercer County Community College has articulation agreements for Information Systems graduates to transfer to Drexel University, Fairleigh Dickinson University, and NJIT. Other institutions that students have successfully transferred to include Rider University, Penn State, The University of Maryland, and The University of Delaware.

The Database Administration certificate of proficiency teaches the skills to manage and maintain database management systems (DBMS) software and advanced functionalities of Microsoft Excel to support administrative decision-making, including mainstream products such as Oracle and Microsoft SQL Server. Students who demonstrate solid academic performance will be encouraged to complete the MCDBA core examination and Oracle certification exams.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
MAT 151	Calculus I for the Mathematical and Physical Sciences Or consult academic advisor if lower course level more appropriate.	4
NET 102	Introduction to PC Hardware and Software (2/3)	3
IST —	Computer Concepts requirement (2/2) Select from IST 101 or 102	3
— —	Humanities general education elective	3
SECOND SEMESTER		
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
ENG 102	English Composition II (3/0)	3
IST 110	Introduction to Python (2/2)	3
NET 104	Fundamentals of Computer Networks (2/2)	3
— —	Programming elective Select from COS 101 or IST 109. Consult academic advisor for IST 108 substitution.	3
THIRD SEMESTER		
COS 102	Computer Science I (3/2)	4
ECO 111	Macroeconomics (3/0)	3
IST 256	Systems Analysis (2/2)	3
PHY 115	University Physics I (3/3) Consult academic advisor for PHY 101 substitution.	4
FOURTH SEMESTER		
BUS 230	Global Environment of Business (3/0)	3
IST 251	Management of Computer Technology (2/2)	3
IST 253	Database Concepts (2/2)	
	OR	3
CIS 173	PC Applications: Database (2/2)	
NET 256	Cloud Foundations (2/2) Consult academic advisor for other IST or NET course substitution.	3
— —	Social Science general education elective	3
		60

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Computer Information Systems

CERTIFICATE OF PROFICIENCY: DATABASE ADMINISTRATION

Credit-bearing certificate programs can serve as gateways to earning an associate degree. Students are encouraged to consult the program coordinator, an academic advisor or Academic Advisor to explore such opportunities.

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
IST 109	Introduction to Programming (2/2)	3
IST 222	PL/SQL Programming (2/2)	3
IST 250	Decision Support Using MS Excel (3/2)	4
IST 253	Database Concepts (2/2)	3
IST 260	SQL Server Database Design (3/2)	4
IST 261	SQL Server System Administration (3/2)	4
IST 262	Oracle SQL (3/2) Must be taken in sequence.	4
IST 263	Database Administration I (3/2) Must be taken in sequence.	4
IST 264	Database Administration II (3/2) Must be taken in sequence.	4
		36

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Computer Science

ASSOCIATE IN SCIENCE DEGREE IN LIBERAL ARTS AND SCIENCES (A.S.)

Programs **CMPTR.SCI.AS**
CIP 240101

The Computer Science programs serve two distinct groups of students. The Associate in Science degree option prepares graduates for transfer as juniors to colleges and universities offering baccalaureate majors in computer science, information systems, and related fields. Mercer has dual admission and articulation agreements with Rutgers University, The College of New Jersey, and New Jersey Institute of Technology (NJIT).

The Certificate of Proficiency program is designed for students who have previously completed degrees in mathematics, science, or engineering. Certificate students gain marketable programming skills which complement their previous academic study. In addition, the Certificate program satisfies many Computer Science master's degree "bridge" requirements.

PROGRAM OUTCOMES

- Apply the fundamental concepts and techniques of computation, algorithms, and software design to a specific problem in a variety of applied fields;
- Provide detailed specifications, analyze the problem, and design a solution that functions as desired, has satisfactory performance, is reliable and maintainable, and meets desired criteria;
- Apply a firm understanding in areas of mathematics and science;
- Discuss the societal implications of computer software.

Admission to the A.S. option requires a high school diploma or equivalent with four years of college-prep mathematics. One or more years of high school science is recommended. While acceptance may be granted for students not prepared to begin the mathematics sequence of courses at the calculus level, these students should begin the mathematics sequence at the level determined by placement test results.

A student must earn a grade of C or higher in core courses to progress in the program. Computer science, mathematics and lab science courses are considered to be curriculum core courses.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
COS 101	Introduction to Computer Science (3/2) May be substituted with 4-credit IST course. Consult academic advisor.	4
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0)	4
SECOND SEMESTER		
COS 102	Computer Science I (3/2)	4
ENG 102	English Composition II (3/0) May be substituted with CMN111 or CMN112.	3
MAT 152	Calculus II (4/0) May be substituted with 4-credit IST course. Consult academic advisor.	4
– –	Humanities general education elective	3
– –	Social Science general education elective	3
THIRD SEMESTER		
COS 204	Discrete Mathematical Structures (4/0)	4
COS 210	Computer Science II – Data Structures (3/2)	4
– –	Lab Science elective PHY 115 and 215 recommended; PHY 101 and 102 or BIO 101 and 102 or CHE 101 and 102 may be selected if they serve a transfer need.	4
– –	General Education elective Select course from either Social Science or Humanities general education categories.	3
FOURTH SEMESTER		
COS 231	Fundamentals of Computer Architecture (3/2)	4
– –	Program Elective In consultation with an academic advisor, select from MAT 201, 208 or 4-credit IST	4
– –	Lab Science elective PHY 115 and 215 recommended; PHY 101 and 102 or BIO 101 and 102 or CHE 101 and 102 may be selected if they serve a transfer need.	4
– –	Free elective Take at least 3 college level credits. Consulate with faculty advisor.	3
		60

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Computer Science
Concentration in Data Science
ASSOCIATE OF SCIENCE (A.S.)

The Computer Science program, with a concentration in Data Science, is designed for students with an interest in pursuing a career in the field of Data Science. The program combines rigorous computer science and mathematics fundamentals with an introduction to data science, providing a solid foundation for students to transfer to a Data Science B.S. program or the Data Science track of a Computer Science B.S. program at a four-year institution.

PROGRAM OUTCOMES

- Apply computational thinking, programming, algorithms and data analysis techniques to solve complex problems across diverse application domains, demonstrating proficiency in software development and analytical reasoning.
- Apply mathematical and statistical foundations to computational and data science problems.
- Evaluate and address the ethical, social and professional implications of data-driven applications, including issues of privacy, bias, fairness and responsible use of technology.
- Demonstrate readiness for continued study in Data Science or Computer Science bachelor's degree programs at four-year institutions through mastery of foundational concepts and transfer-level competencies.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
IST 110	Intro to Python (2/2) Consult with faculty advisor for a possible substitution.	3
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult faculty advisor for details.	2
ENG 101	English Composition I (3/0)	3
MAT 151	Calculus I (4/0)	4
— —	Humanities general education elective	3
SECOND SEMESTER		
COS 102	Computer Science I (3/2)	4
ENG 102	English Composition II (3/0)	3
MAT 152	Calculus II (4/0) May be substituted with a 4-credit 1ST course. Consult with faculty advisor.	4
COS 116	Introduction to Data Science (3/2)	4
— —	Social Science GenEd elective	3
THIRD SEMESTER		
COS 204	Discrete Mathematical Structures (4/0)	4
COS 210	Computer Science II – Data Structures (3/2)	4
— —	Lab Science elective PHY 115 and 215 recommended; PHY 101 and 102 or BIO 101 and 102 or CHE 101 and 102 may be selected if they serve a transfer need.	4
ECO 111	Macroeconomics	3
FOURTH SEMESTER		
MAT 208	Linear Algebra (4/0)	4
— —	Program Elective Choose from COS 231 , MAT 201 , or 4-credit 1ST course.	4
— —	Lab Science elective PHY 115 and 215 recommended; PHY 101 and 102 or BIO 101 and 102 or CHE 101 and 102 may be selected if they serve a transfer need.	4
— —	General Education elective Select course from either Social Science or Humanities general education categories.	3
		60

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Computer Science
CERTIFICATE OF PROFICIENCY

Credit-bearing certificate programs can serve as gateways to earning an associate degree. Students are encouraged to consult the program coordinator, an academic advisor or Academic Advisor to explore such opportunities.

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
MAT 151	Calculus I (4/0)	4
MAT 152	Calculus II (4/0)	4
COS 101	Introduction to Computer Science (3/2)	4
COS 102	Computer Science I – Algorithms and Programming (3/2)	4
COS 210	Computer Science II – Data Structures (3/2)	4
COS 231	Fundamentals of Computer Architecture (3/2)	4
— —	Program elective In consultation with an academic advisor, select from the course categories of COS, DMA, IST, or MAT.	3-4
		30-31

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Computer Support Specialist

CERTIFICATE OF ACHIEVEMENT

The **Computer Support Specialist** micro-credential provides an introduction to entry-level information technology positions.

Support specialists are the front line go-to individuals for providing initial technical assistance and support related to computer systems, hardware, and software. They are responsible for answering queries and addressing system and user issues in a timely and professional manner.

PROGRAM OUTCOMES

- Identify system modules and recognize by site and definitions;
- Identify IRQ, DMAs, and I/O addresses and procedures for altering those settings;
- Describe computer nomenclature with respect to personal computer HW and SW.

Successful completion of credits from this Certificate of Achievement can be applied toward the Information Technology degree program.

Admission to the program requires readiness for college-level English and Math and approval from the program coordinator. Students may receive credit for previous training in a skills area by applying for credit by examination, credit by experience, and/or transfer credit as evaluated and approved by the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
NET 102	Introduction to PC Hardware and Software (2/3)	3
NET 103	IT Essentials (2/3)	3
NET 104	Fundamentals of Computer Networks (2/2)	3
NET 120	Windows Desktop OS Administration (2/2)	3
NET 122	Windows Server OS Administration (2/2)	3
		15

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Criminal Justice
Corrections option
ASSOCIATE IN SCIENCE DEGREE (A.S.)

The Corrections option of the Criminal Justice program addresses the professional and educational needs of students interested in careers in corrections and of personnel already employed in the field who desire to increase their proficiency or to improve their professional career opportunities.

Program Outcomes:

- Discuss the history and philosophy of the components of the criminal justice system;
- Discuss the role of the corrections officer in contemporary America;
- Compare and contrast historically the philosophies of rehabilitation and punishment;
- Describe both traditional and new practices being employed in correctional institutions.

Coursework is presented with both daytime and online options. Evening courses may be available. Corrections may be pursued either full-time or part-time. During the sophomore year, cooperative education is available for students interested in the realworld application of corrections and criminal justice theory to the correctional system.

Admission to the Corrections option requires a high school diploma or equivalent and English competency as demonstrated by placement testing. Graduates of the State and County Basic Training Course of the New Jersey Correctional Staff Training Academy may receive nine credits of advanced standing in the Corrections option.

Applicants should be aware that institutions, agencies, and offices of the criminal justice system establish mental, physical, and character requirements. Persons interested in this option are advised to gain an awareness of the specific requirements for their desired work setting.

Graduates of this option have secured positions with county, state and federal correctional agencies, as well as probation and parole departments. Graduates have also gone on to pursue careers in social welfare, criminology, and law.

Students have transferred to such four-year institutions as The College of New Jersey, Temple University, John Jay College of Criminal Justice, and Rutgers University. To enable transfer to baccalaureate institutions without loss of credit and with full junior status, transfer agreements have been secured with several universities including John Jay College of Criminal Justice, Fairleigh Dickinson University, Rider University and Rowan University. Students interested in these opportunities should contact a Criminal Justice program advisor early in their coursework.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CRJ 101	Introduction to the Criminal Justice System (3/0)	3
CRJ 103	Introduction to Corrections (3/0)	3
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
SOC 101	Introduction to Sociology (3/0)	
	OR	3
SOC 107	Social Problems (3/0)	
SECOND SEMESTER		
CRJ 105	Criminology (3/0)	3
ENG 102	English Composition II (3/0)	3
HIS 101	History of Western Civilization to 1648 (3/0)	
	OR	3
HIS 102	History of Western Civilization Since 1648 (3/0)	
MAT 120	Mathematics for Liberal Arts (3/0)	
	OR	3
MAT 125	Elementary Statistics I (3/0)	
PSY 101	Introduction to Psychology (3/0)	3
THIRD SEMESTER		
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
CRJ 212	Juvenile Justice (3/0)	3
LEG 256	Career Development for Law and Justice Professionals (1/0)	1
SOC 209	Racial, Ethnic and Minority Groups (3/0)	3
HIS —	Historical Perspective general education elective	3
— —	Elective	3
FOURTH SEMESTER		
CRJ 211	Community Corrections (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	3
POL —	Political Science general education elective	3
— —	Lab Science elective Select from BIO 113, CHE 106, PHY 111.	3
— —	Elective	3
		60

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Criminal Justice
Law Enforcement option
ASSOCIATE IN SCIENCE DEGREE (A.S.)

The Law Enforcement option of the **Criminal Justice** program caters to the professional and educational needs of students interested in careers in law enforcement and of current law enforcement personnel who desire to increase their proficiency or to improve their professional career opportunities.

Program Outcomes:

- Discuss the history and philosophy of the components of the criminal justice system;
- Describe the formal and informal political and community structures that affect criminal justice agencies;
- Describe the fundamental concepts and principles of management and administration employed in various police agencies;
- Discuss the roles of various criminal justice professionals.

Coursework is presented with both daytime and online options. Evening courses may be available. The option may be pursued either full-time or part-time. During the sophomore year, cooperative education is available for students interested in the realistic application of law enforcement and criminal justice theory to the criminal justice system.

Admission to Law Enforcement requires a high school diploma or equivalent and English competency as demonstrated by placement testing. Graduates of the Basic Course for Police Officers may receive 12 credits of advanced standing in the Law Enforcement option.

Applicants should be aware that institutions, agencies, and offices of the criminal justice system establish mental, physical, and character requirements. Persons interested in this option are advised to gain an awareness of the specific requirements for their desired work setting.

Graduates of this option have secured positions with city, county, state, and federal law enforcement agencies as well as private security organizations. Graduates have also gone on to pursue careers in law, criminology, and social welfare.

Students have transferred to various four-year institutions such as The College of New Jersey, Temple University, John Jay College of Criminal Justice, and Rutgers University. To enable transfer to baccalaureate institutions, transfer agreements have been secured with several universities including John Jay College of Criminal Justice, Fairleigh Dickinson University, Rider University, and Rowan University. Students interested in these opportunities should contact a Criminal Justice program advisor early in their coursework.

Business, Technology, and Professional Studies Division

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Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CRJ 101	Introduction to the Criminal Justice System (3/0)	3
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
HIS 101	History of Western Civilization to 1648 (3/0)	
	OR	3
HIS 102	History of Western Civilization Since 1648 (3/0)	
SOC 101	Introduction to Sociology (3/0)	
	OR	3
SOC 107	Social Problems (3/0)	
SECOND SEMESTER		
CRJ 102	Police in the Community (3/0)	3
CRJ 105	Criminology (3/0)	3
ENG 102	English Composition II (3/0)	3
MAT 120	Mathematics for Liberal Arts (3/0)	
	OR	3
MAT 125	Elementary Statistics I (3/0)	
HIS —	Historical Perspective general education elective	3
THIRD SEMESTER		
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
CRJ 202	Criminal Law (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	3
LEG 256	Career Development for Law and Justice Professionals (1/0)	1
— —	Lab Science elective Select from BIO 113, CHE 106, PHY 111	3
— —	Elective	3
FOURTH SEMESTER		
CRJ 206	Police Administration (3/0)	3
PSY 101	Introduction to Psychology (3/0)	3
CRJ —	Criminal Justice elective Select from CRJ 103, 104, 207, 211, 212	3
POL —	Political Science general education elective	3
— —	Elective	3
		60

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Culinary Arts

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **CULA.AAS**
CIP 120503

The **Culinary Arts** program provides training for students who wish to pursue a career in the food service industry as a professional chef or pastry chef. The core curriculum is comprised of 50 credits of general education and hospitality foundation courses, while each of the two concentrations – in Culinary Arts (CULA.AAS) and Pastry Arts (CULA.PASTRY.AAS) – is comprised of 16 credits that focus on advanced courses in the specialty area selected.

Students in either concentration will demonstrate proficiency in culinary skills and techniques that include the principles and processes of cooking and baking, proper use of knives, food presentation, menu development, and food safety and sanitation.

PROGRAM OUTCOMES

- Apply safe and sanitary practices within any food production department compliant with laws and safety regulations;
- Develop appropriate menus and recipe selections, recognize costs incurred, and apply cost control techniques;
- Design and plan meal service, buffets, and food-related activities/functions and understand the purchasing and requisition process;
- Develop professional written and verbal communication and computational skills related specifically to hospitality;
- Demonstrate proficiency in a variety of professionally recognized culinary/pastry skills and techniques;
- Apply practical culinary/pastry techniques that stress creativity and innovation with respect to flavor and texture in food production;
- Work in any production or food preparation station within a food service department;
- Create and critique high-quality food products with artistic designs;
- Effectively supervise and train kitchen personnel.

Students who complete the Culinary Arts program will be qualified to work in a variety of food service positions and settings, including restaurants, hotels, catering facilities, corporate dining facilities, healthcare food operations, and resorts. Those who complete the Pastry Arts concentration will be qualified for positions in hotels, fine dining restaurants and clubs, as well as a variety of positions with retail and wholesale bakeries.

Graduates of this A.A.S. program also would be eligible to transfer to Fairleigh Dickinson University to pursue a Bachelor of Arts in Individualized Studies offered through the University's Petrocelli College of Continuing Studies. Students may also transfer to Johnson & Wales University, where many credits will be accepted. Other transfer opportunities are being developed.

Admission to the program requires, at minimum, a high school diploma or its equivalent.

Concentration Curriculum

Culinary Arts

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
HOS 100	Hospitality Success Skills (1/0)	1
HOS 101	Food Preparation I (1/4)	3
HOS 111	Culinary Math (1/0)	1
HOS 118	Sanitation and Safety in Food Service Operations (2/0)	2
HOS 185	Table Service (1/3)	2
MAT 120	Mathematics for Liberal Arts (3/0)	
	OR	3
MAT 125	Elementary Statistics I (3/0)	
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
HOS 102	Food Preparation II (1/4)	3
HOS 109	Advanced Culinary Arts (1/4)	3
HOS 116	Techniques of Healthy Cooking (1/4)	3
HOS 217	Professional Baking I (1/4)	3
SUMMER or WINTER SESSION		
HOS 110	Breakfast / Pantry (1/3)	2
HOS 289	Culinary / Pastry Arts Internship Typically taken during the Summer session between the program's first and second years. Alternatively, may be taken in the third or fourth semester.	1
THIRD SEMESTER		
HOS 115	Food and Culture (2/2)	3
HOS 203	Hospitality Purchasing (3/0)	3
HOS 231	Meat, Poultry and Fish Fabrication (0/2)	1
HOS 235	American Regional Cuisine (1/3)	2
HOS 255	Garde Manger (1/3)	2
– –	General Education elective	3
FOURTH SEMESTER		
HOS 210	Applied Kitchen Skills – Cafe (1/4)	3
HOS 230	Experimental Kitchen (1/3)	2
HOS 240	Classical Cuisine / Advanced International (1/3)	2
IST 101	Computer Concepts with Applications (2/2) Or consult academic advisor.	3
– –	Humanities general education elective	3
		60

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Culinary Arts

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **CULA.PASTRY.AAS**
CIP 120503
CULA.ESSENTIALS.CRT
CIP 12.0503

Concentration Curriculum

Pastry Arts

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
HOS 101	Food Preparation I (1/4)	3
HOS 111	Culinary Math (1/0)	1
HOS 118	Sanitation and Safety in Food Service Operations (2/0)	2
HOS 217	Professional Baking I (1/4)	3
MAT 120	Mathematics for Liberal Arts (3/0)	
	OR	3
MAT 125	Elementary Statistics I (3/0)	
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
HOS 100	Hospitality Success Skills (1/0)	1
HOS 102	Food Preparation II (1/4)	3
HOS 116	Techniques of Healthy Cooking (1/4)	3
HOS 218	Professional Baking II (1/4)	3
HOS 219	Professional Baking III (1/3)	2
SUMMER or WINTER SESSION		
HOS 110	Breakfast / Pantry (1/3)	2
HOS 289	Culinary / Pastry Arts Internship Typically taken during the Summer session between the program's first and second years. Alternatively, may be taken in the third or fourth semester.	1
THIRD SEMESTER		
HOS 203	Hospitality Purchasing (3/0)	3
HOS 230	Experimental Kitchen (1/3)	2
HOS 246	Artisanal Breads (1/3)	2
HOS 247	Restaurant Desserts (1/4)	3
— —	General Education elective	3
FOURTH SEMESTER		
HOS 115	Food and Culture (2/2)	3
HOS 245	Chocolates and Confections / Retail Bakeshop (1/4)	3
HOS 249	Advanced Pastry (1/3)	2
IST 101	Computer Concepts with Applications (2/2) Or consult academic advisor.	3
— —	Humanities general education elective	3
		60

Certificate Curriculum

Code	Course (lecture/lab hours)	Credits
HOS 118	Principles of Financial Accounting (4/0)	4
HOS 111	Principles of Managerial Accounting (4/0)	4
HOS 101	Intermediate Accounting I (3/1)	3
HOS 102	Intermediate Accounting II (3/1)	3
HOS 109	Federal Income Taxation (3/0)	3
HOS 210	Auditing (3/1)	3
		15

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NOTE: All program listings are subject to periodic updates.
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Culinology / Food Science

ASSOCIATE IN SCIENCE DEGREE (A.S.)

Students who complete the degree requirements will be eligible to transfer to Rutgers University to pursue a baccalaureate degree in Interdisciplinary **Food Science**.

Culinology™ refers to the blending of the disciplines of food science and culinary arts. The term is a trademark of the Research Chefs Association, which has approved MCCC's program (one of only a handful in the nation). By combining the knowledge of basic science with the creativity of culinary arts, students develop a skill set that will enable them to contribute to the creative development of new food products and flavors.

PROGRAM OUTCOMES

- Apply safe and sanitary practices within any food production department compliant with laws and safety regulations;
- Develop and critique appropriate menu items and recipe selections, recognize costs incurred, and apply appropriate techniques for further development;
- Demonstrate proficiency in the culinary arts, including menu and recipe development including the purchasing and requisition process;
- Develop professional written and verbal communication and computational skills related specifically to hospitality;
- Demonstrate proficiency in a variety of professionally recognized culinary/pastry skills;
- Apply practical culinary techniques that stress creativity and innovation with respect to flavor and texture in food production;
- Apply scientific data collection and analysis skills;
- Demonstrate an understanding of flavor development and textures utilizing various additives and techniques;
- Create and critique high-quality food products with artistic designs.

Students are encouraged to become a member of the Research Chefs Association and work toward becoming a Certified Research Chef. A career in this field can be in the research and development of food, beverage products, new tastes and flavors, and new ways to store manufactured foods.

Admission requires a high school diploma or its equivalent and completion of pre-calculus mathematics. To be admitted to the program, the applicant must demonstrate competency in English, reading, and mathematics as determined by placement testing. Individuals who do not meet these admission requirements should plan a preparatory program with a faculty advisor.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BIO 101	General Biology I (3/3)	4
ENG 101	English Composition I (3/0)	3
HOS 100	Hospitality Success Skills (1/0)	1
HOS 101	Food Preparation I (1/4)	3
HOS 118	Sanitation and Safety in Food Service Operations (2/0)	2
HOS 217	Professional Baking I (1/4)	3
SECOND SEMESTER		
BIO 102	General Biology II (3/3)	4
ENG 102	English Composition II (3/0)	3
HOS 102	Food Preparation II (1/4)	3
HOS 109	Advanced Culinary Arts (1/4)	3
– –	Humanities general education elective	3
THIRD SEMESTER		
CHE 101	General Chemistry I (3/3)	4
HOS 230	Experimental Kitchen (1/3)	2
HOS 235	American Regional Cuisine (1/3)	
	OR	2
HOS 240	Classical Cuisine / Advanced International (1/3)	
MAT 151	Calculus I (4/0) Students who do not place at this mathematics level must meet with their program advisor to develop an academic plan.	4
– –	Social Science general education elective	3
FOURTH SEMESTER		
CHE 102	General Chemistry II (3/3)	4
HOS 115	Food and Culture (2/2)	3
HOS 218	Professional Baking II (1/4)	
	OR	3
HOS 116	Techniques of Healthy Cooking (1/4)	
– –	Social Science or Humanities general education elective ECO 111, ECO 112, or PSY 101 recommended for transfer students to Rutgers Food Science program.	3
		60

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Dance

Programs **DAN.AA**
CIP 500101

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)
ASSOCIATE IN FINE ARTS DEGREE IN PERFORMING ARTS (A.F.A.)

The **Dance** program offers rounded and intensive study of jazz, ballet, and modern technique. Students also receive training in choreography and perform in student-driven projects as well as the Mercer Dance Ensemble (M.D.E.), Mercer County's own dance company.

The program offers two degree options, A.A. or A.F.A., both of which combine conservatory training in the performing arts with academic education in the liberal arts. The A.A. allows students to transfer as juniors into bachelor of arts programs. The A.F.A. includes additional training in performing arts and prepares students for work as well as further study in the field.

PROGRAM OUTCOMES

- Master the physical discipline and time investment necessary to carry out professional concerts;
- Choreograph independently to create their own dances;
- Work collaboratively with artistic and production staff;
- Create successful auditions by preparing materials and exhibiting professional conduct.

Graduates have transferred to four-year institutions including Rider University, George Mason University, Montclair State University, and Rutgers University Mason Gross School of the Arts, among others. Dance program students have also gone on to perform with Tsunami Productions, Nicholas Rodriguez and Company, Six Flags Great Adventure, and Sesame Street Live.

The program may be pursued part- or full-time. Dance courses are offered during the morning and afternoon. Students are required to attend some evening classes in order to complete the program. Admission requires a high school diploma or its equivalent.

A.A. Degree Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 112	Public Speaking (3/0)	3
DAN 101	Introduction to Dance and Culture (3/0)	3
DAN 116	Studio Dance Technique I (0/6)	3
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
SECOND SEMESTER		
DAN 117	Studio Dance Technique II (0/6)	3
DAN 120	Choreography I (2/2)	3
ENG 102	English Composition II (3/0)	3
HIS —	Historical Perspective general education elective	3
— —	Elective	3
THIRD SEMESTER		
DAN 118	Studio Dance Technique III (0/6)	3
PHY 111	Physical Science Concepts (2/2)	3
THR 212	Central Voices in World Drama (3/0)	3
VPA 228	Artistic Collaboration Workshop (2/2)	3
— —	Technology general education elective	3
FOURTH SEMESTER		
ART 123	History of Modern Art (3/0)	3
DAN 119	Studio Dance Technique IV (0/6)	3
MUS 103	Introduction to Music (3/0)	3
— —	Social Science general education elective	3
— —	Social Science general education elective	3
		60

NOTE: Students who forego the courses recommended above should select all other electives in consultation with an academic advisor in order to assure maximum transfer of credits.

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Dance

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)
ASSOCIATE IN FINE ARTS DEGREE IN PERFORMING ARTS (A.F.A.)

A.F.A. Degree Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 112	Public Speaking (3/0)	3
DAN 101	Introduction to Dance and Culture (3/0)	3
DAN 112	Ballet II (1/2)	2
DAN 116	Studio Dance Technique I (0/6)	3
ENG 101	English Composition I (3/0)	3
MUS 103	Introduction to Music (3/0)	3
SECOND SEMESTER		
BIO 106	Human Anatomy (3/2)	4
DAN 117	Studio Dance Technique II (0/6)	3
DAN 120	Choreography I (2/2)	3
ENG 102	English Composition II (3/0)	3
— —	Social Science general education elective ANT 101 or PSY 101 recommended.	3
THIRD SEMESTER		
DAN 118	Studio Dance Technique III (0/6)	3
DAN 285	Special Studies: Dance	3
MAT 125	Elementary Statistics I (3/0)	3
THR 104	Fundamentals of Acting (2/2)	3
VPA 228	Artistic Collaboration Workshop (2/2)	3
FOURTH SEMESTER		
DAN 113	Modern Dance II (1/2)	2
DAN 119	Studio Dance Technique IV (0/6)	3
ETT 200	Technical Production	1
THR 101	Introduction to Theatre (3/0)	3
HIS —	Historical Perspective general education elective HIS 112 recommended.	3
		60

NOTE: Students who forego the courses recommended above should select all other electives in consultation with an academic advisor in order to assure maximum transfer of credits.

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Dance
CERTIFICATE OF ACHIEVEMENT

The **Dance** micro-credential is designed for those seeking to expand their skills in performance for personal growth and employment advancement.

Combining intensive classroom study and performance, the program is dedicated to developing a dancer who can cope with the demands of the concert stage and work with a range of styles – from ballet to modern to jazz.

PROGRAM OUTCOMES

- Master the physical discipline and time investment necessary to carry out professional concerts;
- Choreograph independently to create own dances;
- Work collaboratively with artistic and production staff;
- Create successful auditions by preparing materials and exhibiting professional conduct.

Successful completion of credits from this Certificate of Achievement can be applied toward the Dance degree programs.

Admission to the program requires readiness for college-level English and Math and approval from the program coordinator. Students may receive credit for previous training in a skills area by applying for credit by examination, credit by experience, and/or transfer credit as evaluated and approved by the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
DAN 101	Introduction to Dance and Culture (3/0) Consult program coordinator concerning ENG 101 prerequisite.	3
DAN 112	Ballet II (1/2)	2
DAN 116	Studio Dance Technique I (0/6)	3
DAN 113	Modern Dance II (1/2)	2
DAN 117	Studio Dance Technique II (0/6)	3
DAN 120	Choreography I (2/2)	3
		16

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Data Analytics
CERTIFICATE OF PROFICIENCY

The **Data Analytics** certificate program prepares students for entry-level positions such as business/data analyst and enables Computer Science, Computer Information Systems, and Business Administration students to explore data analytics as a field of study while at MCCC and/or transfer to Data Science or Business Analytics programs as desired.

PROGRAM OUTCOMES

- Develop relevant programming abilities;
- Demonstrate proficiency with statistical analysis of data. and approved by the program coordinator

Curriculum

Code	Course (lecture/lab hours)	Credits
CIS 175	PC Applications: Spreadsheets (2/2)	3
COS 101	Introduction to Computer Science (3/2) May be substituted with 4-credit IST course. Consult academic advisor	4
ENG 101	English Composition I (3/0)	3
MAT 151	Calculus I (4/0)	4
BUS 205	Business Statistics I (3/0)	
	OR	3-4
MAT 201	Probability and Statistics for Science and Engineering (4/0)	
COS 102	Computer Science I – Algorithms and Programming (3/2)	4
IST 275	Data Analytics and Visualization (2/2)	3
— —	Program elective In consultation with an academic advisor, select either CIS 173 or an IST course.	3-4
BUS 206	Business Statistics II (3/0)	
	OR	3-4
COS 210	Computer Science II -- Data Structures (3/2)	
		30-33

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Database Concepts and Skills Associate

CERTIFICATE OF ACHIEVEMENT

Programs **DATA.CONC.ASSOC.CRT**
CIP 110201

The **Database Concepts and Skills Associate** micro-credential provides beginners friendly introductory-level courses in database administration, whether students are just finding their footing, prepping for their industry desired certifications, or looking to go deep into specialty topics like serverless and machine learning.

The courses provide hands-on learning with the technology to reinforce concepts with realworld experience.

PROGRAM OUTCOMES

- Explain basic concepts of databases;
- Code using Oracle Structured Query (SQL) Language;
- Deploy databases on cloud platform.

Successful completion of credits from this Certificate of Achievement can be applied toward the Database Administration certificate and Computer Information Systems degree programs.

Admission to the program requires readiness for college-level English and Math and approval from the program coordinator. Students may receive credit for previous training in a skills area by applying for credit by examination, credit by experience, and/or transfer credit as evaluated and approved by the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
IST 109	Introduction to Programming (2/2)	3
SECOND SEMESTER		
IST 253	Database Concepts (2/2)	3
IST 262	Oracle SQL (3/2)	4
THIRD SEMESTER		
IST 265	Database Cloud Computing Concept (2/2)	3
		13

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Digital Film

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **CPA.ACC26.CERT**
CPA.BUS24.CERT
CIP 520303

The A.A.S. degree program in Digital Film prepares students to create, interpret, and analyze visual language through the study of aesthetic and technical concepts applied in the making and producing of films. Students learn all aspects of digital film including directing, producing, editing, cinematography, and screenwriting.

Each course connects to another course in the curriculum in some unique way and provides a solid foundation for students to achieve successful careers in the highly competitive film industry. The curriculum has been designed to encourage collaboration throughout the college on several levels, enabling learning opportunities beyond the classroom experience.

The Digital Film program offers a variety of courses that are production-oriented, as well as those exploring film history, theory, and criticism. The program also includes training in all aspects of new media technologies including state-of-the-art, high-definition digital acquisition.

PROGRAM OUTCOMES

- Write, produce, direct, and edit a variety of digital film productions;
- Achieve entry-level professional competence for a position in commercial or film productions;
- Apply narrative structures in the development of short films;
- Choose and analyze scripts, and evaluate the potential of auditioning talent;
- Effectively direct actors to illustrate dramatic action and character;
- Design and implement mood-setting lighting design;
- Evaluate film scripts and select appropriate camera lenses for storytelling;
- Assemble production teams to work on short films.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 101	Mass Media (3/0)	3
CMN 112	Public Speaking (3/0)	3
CMN 141	Introduction to Television Production (2/2)	3
DMA 144	Internet Tools and Techniques (1/4)	3
ENG 101	English Composition I (3/0)	3
SECOND SEMESTER		
CMN 142	Introduction to Field Production (2/2)	3
CMN 146	Social Media Technologies (2/2)	3
CMN 147	Introduction to Story (2/2)	3
CMN 148	Introduction to Editing (2/2)	3
ENG 102	English Composition II (3/0)	3
THIRD SEMESTER		
CMN 144	Screenwriting (2/2)	3
CMN 153	Digital Audio Production I (2/2)	3
CMN 241	Applied Field Production (2/2)	3
CMN 243	Cinematography (2/2)	3
MAT 125	Elementary Statistics I (3/0) MAT 120 is an acceptable alternative.	3
FOURTH SEMESTER		
CMN 107	Cinema (3/0)	3
CMN 242	Advanced Film Production (2/2)	3
PHO 103	Digital Photography I (2/3)	3
— —	Social Science general education elective	3
SUMMER SESSION		
CMN 285	Special Studies in Television Production OR	3
CMN 290	Internship: Communications (3/0)	
		60

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Digital Media Arts

ASSOCIATE IN APPLIED SCIENCE DEGREE IN VISUAL ARTS (A.A.S.)

Programs **DMA.3D.AAS**
DMA.MULT.AAS
CIP 500402

The Digital Media Arts A.A.S. option of the Visual Arts program prepares students for entry-level positions in two areas:

- The Multimedia concentration (DMA.MULT.AAS) prepares students for positions as multimedia designers, graphic artists, and production artists. Typical employers include advertising agencies; design firms; television, film and video effects houses; and other branches of the entertainment industry. It also prepares students for advanced study in computer graphics or digital media arts.
- The 3-D Animation concentration (DMA.3D.AAS) prepares students for positions as 3-D production artists, animators, and modelers. Typical employers include animation studios; advertising agencies; design firms; television, film and video effects houses; and other branches of the entertainment industry.

The computer is the primary tool of expression in the program; however, emphasis is placed on the development of creative thinking and art and design skills. Most course work takes place in a studio using regularly updated professional-quality hardware and software on both Macintosh and PC computer platforms.

PROGRAM OUTCOMES

- Understand the pre-production process for applied design in the areas of animation, multimedia, web design, and digital assets distributed on the internet;
- Understand and apply storytelling principles applicable in the areas of animation, multimedia, web design, and digital assets distributed on the internet;
- Produce and manage digital assets for various production scenarios including animation, multimedia, and web design;
- Produce and manage two- and three-dimensional digital assets containing change over time and throughout pagination using professional software;
- Use professional 3-D modeling, animation, prototyping, and text editor software applications;
- Develop and present ideas in both written and oral formats;
- Use professional software applications to design websites with accessible design and content;
- Use design principles to develop websites that communicate effectively;
- Create a professional portfolio to serve in the pursuit of further education or employment.

The program may be pursued full-time or part-time. Some courses may be offered only during the evening.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ART 102	Basic Drawing (1/4)	3
DMA 115	Vector Drawing (1/4)	3
DMA 110	Digital Imaging (1/4)	3
DMA 144	Internet Tools and Techniques (1/4)	3
ENG 101	English Composition I (3/0)	3
SECOND SEMESTER		
ART 105	Two-Dimensional Design (1/4)	3
— —	Concentration Elective	3
DMA 135	Digital Narrative (1/4)	3
DMA 145	Web Design I (1/4)	3
ENG 102	English Composition II (3/0)	3
THIRD SEMESTER		
DMA 210	Motion Grapics (1/4)	3
DMA 250	Digital Portfolio Seminar (1/4)	3
MAT —	Mathematics elective MAT 120 or 125 recommended. Select in consultation with an academic advisor	3
— —	Concentration elective	3
— —	Concentration elective	3
FOURTH SEMESTER		
ART 122	History of Art (3/0)	3
CMN 112	Public Speaking (1/4)	3
— —	Art History elective Select from ADV 230; ART 121, 124, 125; CMN 107; PHO 110.	3
— —	Concentration elective	3
— —	Program elective Select from ART 106; DMA 120, 275; CMN 153, 157, 148, 144.	3
		60

NOTE: Students must earn a minimum grade of C in all ADV, ART, CMN, DMA, IST, and PHO courses.

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Digital Media Arts (cont'd)

ASSOCIATE IN APPLIED SCIENCE DEGREE IN VISUAL ARTS (A.A.S.)

Curriculum

Code	Course (lecture/lab hours)	Credits
	3-D Animation CONCENTRATION electives	
ART 104	Life Drawing (1/4)	3
DMA 120	3-D Modeling I (1/4)	3
DMA 225	Computer Animation I (1/4)	3
DMA 226	Computer Animation II (1/4)	3
DMA 227	Character Rigging	3
	Multimedia CONCENTRATION electives	
ADV 101	Advertising Design I (1/4)	3
DMA 227	Character Design	3
ADV 110	Typography I: Basics of Graphic Design (1/4)	3
— —	Multimedia elective Select from any 200-level DMA course or the following courses from other programs: ADV 101, 210; CMN 141, 142, 153; GAM 120; MUS 230; PHO 202, 203.	

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Early Childhood Education / Special Education Assistant

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **EDU.SPEC.ED.AAS**
CIP 440000

The **Education / Special Education Assistant** degree is designed to meet the needs of students interested in teaching in private early childhood establishments or daycare centers, assisting students with disabilities individually or in whole groups in public and private schools or similar institutions and working as teacher aides or substitute teachers in various settings. Individuals currently holding paraprofessional positions in education may use this option to enhance their classroom and related skills and improve earning potential.

PROGRAM OUTCOMES

- Identify and explain the historical and philosophical foundations of American education;
- Interpret current issues facing educators on the basis of study and research;
- Evaluate how students differ in their approaches to learning and create instructional opportunities that are adapted to diverse learners;
- Analyze how children learn and develop and provide learning opportunities that support a child's intellectual, social, and personal development;
- Demonstrate effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom;
- Describe and demonstrate a variety of teaching techniques and strategies;
- Conduct small instructional groups under the supervision of a teacher;
- Tutor individual students in selected subjects;
- Implement lesson plans that have specific learning outcomes and procedures, support inclusion, and reflect differentiation of instruction;
- Demonstrate the use of classroom technology for instructional, adaptive, and enhancement purposes.

Most coursework may be pursued part-time, full-time, or online. However, the complete option will require daytime attendance, either full-time or part-time. During the Spring semester of the sophomore year, the student has an intensive 15 to 20 hours per week field experience in classrooms under the supervision of skilled teachers. Arrangements for the field experience should be made with the program coordinator before the final semester.

Admission to the program requires a high school diploma or its equivalent. Students who have completed this program have found employment in public and private schools, daycare centers, and similar institutions. Graduates of the program have transferred to various four-year colleges and institutions; however, it is not designed for transfer, and some loss of credit may be expected depending upon the transfer institution and the intended rogram of baccalaureate study.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CSW 100	College Success and Personal Wellness Some exemptions apply. Consult academic advisor for details.	2
EDU 109	Introduction to Education	3
ENG 101	English Composition I	3
CMN 111	Speech: Human Communication	
	OR	3
CMN 112	Public Speaking	
MAT 120	Mathematics for Liberal Arts	3
SECOND SEMESTER		
PSY 101	Introduction to Psychology	3
EDU 102	Introduction to Exceptional Children	3
ENG 102	English Composition II	3
IST 101	Computer Concepts with Applications	3
SOC 104	Sociology of Education (3/0)	3
THIRD SEMESTER		
EDU 120	Introduction to Early Childhood	3
ENG 222	Children's Literature	3
PSY 206	Child Development	3
SOC 201	Marriage and the Family	3
— —	Lab Science elective BIO 113 recommended.	3
FOURTH SEMESTER		
EDU 214	Curriculum and Methods for Early Childhood	3
EDU 210	Education Field Experience	6
EDU 211	Education Seminar	3
— —	Historical Perspective Elective HIS 112, HIS 113, HIS 105, or HIS 106 recommended.	3
EDU 200	Capstone in Education: Professional Topics	1
		60

NOTE: Students must earn a minimum grade of C in all EDU courses to graduate.

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Education (K-12)

Programs **EDU.AA**
CIP 240101

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)

The **Education (K-12)** degree of the Liberal Arts and Sciences program introduces students to the field of teaching and prepares them to enter a baccalaureate degree program from K-12 including specialized programs for students with special needs and most secondary subject areas. In addition to studying the history, philosophy, and practices of education, students are offered the opportunity to engage in service learning or field experience in school settings under the supervision of experienced classroom teachers.

Students should determine the requirements of the intended transfer institution, and, with the aid of college advising and the program coordinator, select elective subjects accordingly.

PROGRAM OUTCOMES

- Identify and explain the historical and philosophical foundations of American education;
- Interpret current issues facing educators on the basis of study and research;
- Take responsibility for their own learning as they make the transition from learners to teacher/learners;
- Analyze how children learn and develop, and provide learning opportunities that support a child's intellectual, social, and personal development;
- Evaluate how students differ in their approaches to learning and create instructional opportunities that are adapted to diverse learners;
- Demonstrate effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom;
- Describe and demonstrate a variety of teaching techniques and strategies;
- Create and implement planned instructional activities for individuals, small and large groups;
- Identify and apply assessment measures;
- Articulate own teaching proficiency base.

Coursework may be pursued part-time, full-time, and online. Admission requires a high school diploma or its equivalent, one year of science, and two years of mathematics. To be admitted, an applicant must demonstrate competency in English and reading as determined by placement testing.

Although this option is designed as a transfer program, some students may find paraprofessional employment in public or private schools. Individuals currently holding paraprofessional positions in education may use this program to enhance their professional development and earning potential.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 111	Speech: Human Communication	
	OR	3
CMN 112	Public Speaking	
CSW 100	College Success and Personal Wellness Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I	3
MAT 120	Mathematics for Liberal Arts Students interested in combining math and education should select higher level math courses upon consultation with program coordinator prior to first semester.	3
EDU 109	Introduction to Education	3
SECOND SEMESTER		
PSY 101	Introduction to Psychology (3/0)	3
ENG 102	English Composition II (3/0)	3
BIO 113	Biological Science Concepts	
	OR Students interested in combining science and education should select higher level science courses upon consultation with program coordinator prior to first semester.	3-4
BIO 106	Human Anatomy	
EDU 102	Introduction to Exceptional Children	3
SOC 104	Sociology of Education	3
THIRD SEMESTER		
PSY 206	Children Development	3
HIS 112	World History to 1500	
	OR	3
HIS 113	World History since 1500	
EDU 120	Introduction to Early Childhood	3
— —	Humanities General Education Elective Two semesters of World Language recommended. Courses must be limited to one language and in progressive sequence. Proficiency in a second language can be demonstrated through CLEP or advanced placement. Students should consult program coordinator prior to course selection.	
MAT 125	Elementary Statistics	3
FOURTH SEMESTER		
HIS 105	United States History to 1865	
	OR	3
HIS 106	United States History since 1865	
— —	Humanities General Education Elective Two semesters of World Language recommended. Courses must be limited to one language and in progressive sequence. Proficiency in a second language can be demonstrated through CLEP or advanced placement. Students should consult program coordinator prior to course selection.	3
SOC 201	Marriage and the Family	3
— —	Elective Students should select a course applicable to future specialization at the transfer institution. Consultation with program coordinator recommended.	3
ENG 222	Children's Literature	
EDU 200	Capstone in Education: Professional Topics	1
		60

NOTE: Minimum C grade in all EDU courses required for graduation.

Liberal Arts Division

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NOTE: All program listings are subject to periodic updates.
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Electronics Engineering Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **ENGR.ELCT.AAS**
CIP 150303

The **Electronics Engineering Technology** (EET) program is primarily a transfer program. Successful graduates may transfer to a college or university which offers a four-year bachelor's degree in electronics engineering technology.

Mercer County Community College's EET program maintains a transfer agreement with the ECET program of NJIT. Other options for EET graduates include Rowan, Drexel, and Rutgers universities. Several of these institutions have programs which allow EET graduates to complete the requirements for a BSET degree in two years or a Master of Science (MSEE) in three years.

Options among four-year transfer programs include Biomedical Engineering, for job opportunities at the various New Jersey pharmaceutical companies; Computer Engineering, for positions ranging from programmers to systems administrators; General Electrical Engineering, for opportunities at the various electronics companies in New Jersey and the surrounding states; and Telecommunications Engineering, for positions with companies employing fiber optics or networking systems.

PROGRAM OUTCOMES

- Communicate effectively in English, both orally and in written form;
- Demonstrate an understanding of the fundamentals of AC and DC electricity;
- Work as a team with fellow workers;
- Use a computer to access information from the Internet;
- Demonstrate mastery of college algebra and trigonometry;
- Demonstrate mastery of job skills such as soldering, metalworking, and PC board repair;
- Demonstrate an understanding of fundamental digital circuits;
- Demonstrate an understanding of analog circuits, including linear integrated circuits;
- Set up and operate modern electronic equipment such as DMM, oscilloscope, and signal generators.

Admission requires a high school diploma or its equivalent, with two years of algebra desired. One year of laboratory science (chemistry or physics) is strongly recommended for students who intend to transfer to a baccalaureate degree program.

Graduates may begin work directly as electronic technicians, electronic technologists, engineering aides, customer engineers, field service engineers, junior engineers, associate engineers, sales engineers, and systems test technicians. These positions are in the electronics industry, communications, medical instrumentation, energy technology, digital and computer technology, and scientific or technological research and development.

Students planning to transfer should achieve mathematics proficiency at the calculus level and should select physics as their science/technology electives. They will be advised individually during their first session with an EET program advisor.

The college offers a related certificate program in Electronics Engineering Technology, which may be a desirable option for employed persons attending college part-time.

In a particular year, some required courses may be available only during the day or evening.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
EET 138	Introduction to Electronics I (3/3)	4
EET 140	Electronic Construction (1/3)	2
ENG 101	English Composition I (3/0)	3
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0) Preferred for students intending to transfer to a baccalaureate program.	
	OR	4
MAT 146	Pre-Calculus (4/0)	
SECOND SEMESTER		
EET 139	Introduction to Electronics II (3/3)	4
BUS 210	Principles of Management	3
ENG 102	English Composition II (3/0)	3
– –	Social Science or Humanities general education elective	3
– –	General Education elective	3
THIRD SEMESTER		
EET 219	Electronic Networks (3/3)	4
EET 251	Digital Circuit Fundamentals (3/3)	4
PHY 101	College Physics I (3/3)	4
– –	General Education elective Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective, Written and Oral Communication.	3
FOURTH SEMESTER		
EET 214	Communications Electronics (3/3)	4
EET 230	Linear Integrated Circuits (3/3)	4
EET 263	Digital Technology (3/3)	4
PHY 102	College Physics II (3/3)	4
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

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Electronics Engineering Technology

CERTIFICATE OF PROFICIENCY

The **Electronics Engineering Technology** certificate program provides students with the level of technical competency normally required of technicians in the field of digital/microcomputer electronics.

Students may be eligible for credit or advanced standing for work experience in electronics.

PROGRAM OUTCOMES

- Analyze, test, troubleshoot, and repair electronic circuits;
- Operate modern electronics test equipment to diagnose, troubleshoot, and repair electronic circuits;
- Display knowledge of basic analog and digital communication systems.

All courses in this program completed with a grade of C or better may be applied toward the Electronics Engineering Technology Associate in Applied Science degree program.

Admission to the certificate program requires a high school diploma or equivalent with two years of algebra and one year of laboratory science (chemistry or physics preferred). In a particular year, some required courses may be available only during the day or evening.

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
EET 138	Introduction to Electronics I (3/3)	4
EET 139	Introduction to Electronics II (3/3)	4
EET 219	Electronic Networks (3/3)	4
EET 251	Digital Circuit Fundamentals (3/3)	4
EET 140	Electronic Construction (1/3)	2
MAT 146	Pre-Calculus (4/0)	
	OR	4
MAT 151	Calculus I (4/0)	
— —	Technical electives All selections require program advisor approval. Recommended: EET 214, 230, 263.	8
		33

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Engineering Science

ASSOCIATE IN SCIENCE DEGREE (A.S.)

The **Engineering Science** A.S. degree program prepares students to transfer to a baccalaureate degree program in Engineering. Students develop a strong foundation in mathematics, physics and chemistry, with emphasis on engineering applications and use of the computer as a problem-solving tool. A strong general education curriculum helps students develop communication and analytical skills.

Engineering is a profession that integrates science and mathematics with design and laboratory study. It is and will continue to be the profession upon which the United States depends for its growth and ability to compete in world markets. Engineering offers more career options than any other discipline. Engineers are behind almost all of today's exciting technology. Engineers are problem solvers who search for quicker, better, and less expensive ways to use the forces and materials of nature to meet today's challenges.

PROGRAM OUTCOMES

- Analyze engineering drawings, demonstrating an understanding of the concept of scale and orthographic projection;
- Assist engineers and technologists in performing tasks relevant to the chosen branch of engineering;
- Complete written engineering reports;
- Write computer programs to solve engineering-based problems;
- Complete computer-aided design (CAD) drawings;
- Communicate effectively both verbally and in writing;
- Demonstrate effective mathematical skills and application of scientific principles in solving engineering problems;
- Apply critical thinking and problem-solving skills in the analysis of data, design of experimental procedures, and evaluation of outcomes;
- Transfer to a four-year institution in an ABET-accredited engineering program with a major in civil, computer, electrical, industrial, mechanical, biomedical, chemical, environmental, or architectural engineering.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CHE 101	General Chemistry I (3/3)	4
ENG 101	English Composition I (3/0)	3
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0)	4
PHY 115	University Physics I (3/3)	4
SECOND SEMESTER		
CIV 103	Statics (3/0)	3
CIV 105	Introduction to Engineering (1/0)	1
ENG 102	English Composition II (3/0)	3
MAT 152	Calculus II for the Mathematical and Physical Sciences (4/0)	4
CIV 109	Engineering Analysis and Problem Solving	4
THIRD SEMESTER		
CIV 230	Mechanics of Solids (3/3)	4
CMN 112	Public Speaking (3/0)	3
ECO 112	Microeconomics (3/0)	3
ENT 116	Engineering Graphics (1/2)	
	OR	2
DRA 190	Introduction to Computer-Aided Drafting (1/2)	
MAT 251	Calculus III (4/0)	4
FOURTH SEMESTER		
COS 101	Introduction to Computer Science (3/2)	4
MAT 252	Differential Equations (4/0)	4
— —	Humanities general education elective	3
— —	Social Science or Humanities general education elective	3
		60

NOTE: Select courses in consultation with an academic advisor in order to assure maximum transfer of credits.

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Engineering Science
TRANSFER CERTIFICATE

The certificate program in **Engineering Science** generally prepares students for transfer to the sophomore year of a four-year college in a specific engineering program major.

PROGRAM OUTCOMES

- Apply the principles of physics to the solution of engineering problems;
- Use calculus in the solution of engineering problems;
- Present information in written or graphic form.

The complete program is available full-time or part-time. Day students usually complete several required courses in the evening.

Admission requires a high school diploma or its equivalent with the mathematical preparation (advanced algebra and trigonometry) needed for college-level calculus. At least one year of a laboratory science (chemistry or physics) is required. Both sciences are preferred. Applicants will be evaluated according to test scores or other available indicators of potential success in this demanding university-parallel program.

Those who do not meet established admission criteria are strongly advised to enroll in Civil Engineering Technology or Electronics Engineering Technology. These engineering technology programs help students determine their skills in engineering while they are developing their English and/or math skills. After one successful year in an engineering technology program, students may reapply to the Engineering Science program.

Curriculum

Code	Course (lecture/lab hours)	Credits
CHE 101	General Chemistry I	4
ENG 101	English Composition I	3
MAT 151	Calculus I Provisional acceptance may be granted to students not prepared for MAT 151, but serious consideration should be given to entering an engineering technology program. Provisionally accepted students should select MAT entry level from MCCC placement guidelines and must be alert to MAT pre/corequisites for other desired courses.	4
PHY 115	University Physics I	4
COS —	Elective COS 101 or another computer science course approved by an advisor. Students wishing to transfer to Rutgers University should take COS 102.	4
CIV 103	Statics	3
ENG 102	English Composition II	3
ENT 116	Engineering Graphics	
	OR	2
DRA 190	Introduction to Computer-Aided Drafting	
MAT 152	Calculus II	4
CIV 109	Engineering Analysis and Problem Solving	4
		35

NOTE: Select courses in consultation with an academic advisor in order to assure maximum transfer of credits.

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Entertainment Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **ETT.MUS.AAS**
CIP 509999

The Associate in Applied Science in Entertainment Technology prepares students for careers in the entertainment industry. There is one concentration.

The **Music Technology** concentration (ETT.MUS.AAS) integrates music theory and performance with a comprehensive array of technical and business skills that enable the graduate to pursue a variety of career tracks in the music industry such as record producer, recording engineer, remix engineer, sound technician for live shows and concerts, as well as careers in the field of film scoring and film music editing. Other career options in the music entertainment industry include artist development and management, promotion, and marketing.

PROGRAM OUTCOMES

- Demonstrate basic proficiency at the piano keyboard;
- Demonstrate a working knowledge of music theory, including note reading, scale and chord construction, and the principles of voice leading and composition;
- Understand the history of African American music of the 20th century and its relevance to contemporary popular music;
- Create original musical compositions and record those compositions using MIDI sequencing software, a Macintosh computer and Windows-based PC, and MIDI synthesizer keyboard;
- Demonstrate a working knowledge of the music business, including copyright and contract law, artist management, and marketing strategies;
- Demonstrate entry-level professional competence as a sound technician;
- Set up sound reinforcement equipment;
- Demonstrate entry-level competence as a technical manager in the entertainment industry.

Since most business- and technology-related careers in the entertainment industry require additional training and experience, students may take advantage of the many internship programs now available, such as those offered by Sony Music in New York and Disney Productions in Florida.

Alternatively, students may choose to matriculate at one of the growing number of four-year institutions now offering a baccalaureate degree in music business and technology or entertainment technology. Students have transferred to Stockton State University, Ramapo College, Temple University, Mercy College in Westchester, NY, and The College of New Jersey.

The latest equipment and software is provided for student use in the concentration. Professional equipment includes the latest high-end digital and analog sound mixers, signal processors, sound production software, sequencing software, MIDI controllers, and multi-track digital recording.

Our facilities include a black box theatre fully equipped with lighting and sound equipment, a sound lab with 14 high-end digital audio workstations and three control surfaces, in addition to studios for multi-track live recording.

The Entertainment Technology program may be pursued part-time or full-time and may be completed by daytime or evening attendance. Admission requires a high school diploma or its equivalent.

Curriculum

Music Technology CONCENTRATION

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 153	Digital Audio Production I (2/2) Students in the Entertainment Technology program take ETT 102 (not CMN 151) as a prerequisite for CMN 153.	3
ENG 101	English Composition I (3/0)	3
MAT 120	Mathematics for Liberal Arts (3/0)	3
MUS 105	Fundamentals of Music Theory (3/0)	3
MUS 121	Piano Class I (0/2)	1
MUS 156	The History of American Pop Music (3/0)	3
SECOND SEMESTER		
CMN 253	Digital Audio Production II (2/2)	3
ENG 102	English Composition II (3/0)	3
MUS 123	Music Business (3/0)	3
MUS 127	Music Theory I (2/2)	3
MUS 155	History of Jazz and Blues (3/0)	3
MUS 167	Musicianship I (0/2)	1
THIRD SEMESTER		
CMN 111	Speech: Human Communication (3/0) OR	3
CMN 112	Public Speaking (3/0)	
CMN 254	Live Sound Reinforcement (2/2)	3
CMN 256	Digital Audio Production III (2/2)	3
MUS 122	Piano Class II (0/2) OR	1
MUS 142	Guitar Class I (1/1)	
— —	Diversity and Global Perspective general education elective	3
— —	Social Science general education elective	3
FOURTH SEMESTER		
CMN 255	Sound Design for the Entertainment Industry (1/4)	3
ETT 205	Arts and Entertainment Management (3/0)	3
MUS 235	Music Composition in the Virtual Studio (2/2) OR	3
THR 152	Lighting Technology (2/2)	
PHY —	Lab Science general education elective Select from the PHY category of general education courses. PHY 111 recommended.	3
		60

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Entrepreneurial Management

CERTIFICATE OF ACHIEVEMENT

The **Entrepreneurial Management** micro-credential meets the needs of professionals seeking a management or general business credential. In addition, the courses support those looking to start their own business.

According to a recent report, between July 2019 and July 2020 there were 1826 job postings related to general and operations managers in just Mercer County alone. At any given time in this country, 7000 to 10,000 people are considering starting a new business. In the last decade, small businesses have outstripped large companies as incubators of new jobs.

Demand for micro-credentials has been growing in the United States, with workers seeking short-term opportunities to gain skills for either horizontal or vertical movement in their careers.

PROGRAM OUTCOMES

- Create and analyze accounting reports to determine profitability, solvency, and liquidity of a business;
- Implement effective methods to attract and retain customers;
- Use terminology common to the business environment for effective communication;
- Apply organizational theory to management practice;
- Analyze/resolve problems common to small businesses;
- Understand the legal environment of business to make informed management decisions;
- Create a business plan.

The credential, as opposed to a 30-credit certificate, can be completed in just one or two semesters. But all credits earned in acquiring this micro-credential can be applied toward both the Small Business Management certificate and Business Studies degree programs.

Admission to the program requires readiness for college-level English and Math and approval from the program coordinator. Students may receive credit for previous training in a skills area by applying for credit by examination, credit by experience, and/or transfer credit as evaluated and approved by the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ACC 106	Office Accounting I (3/0)	3
BUS 107	Business Law I (3/0)	3
SECOND SEMESTER		
BUS 210	Principles of Management (3/0) Consult program coordinator concerning ENG 101 prerequisite	3
BUS 239	Entrepreneurship (3/0) Consult program coordinator concerning ENG 101 prerequisite	3
MKT 101	Principles of Marketing (3/0) Consult program coordinator concerning ENG 101 prerequisite	
	OR	3
BUS 240	Human Resource Management (3/0) Consult program coordinator concerning ENG 101 prerequisite	
		15

Business, Technology, and Professional Studies Division

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Exercise Science

ASSOCIATE IN SCIENCE DEGREE (A.S.)

Programs **EXER.SCI.AS**
CIP 310505

The **Exercise Science** program equips students with the knowledge, skills, and practical experience needed to succeed in the dynamic field of exercise science or to transfer into related baccalaureate programs. Career opportunities include coaching, teaching, exercise physiology, research, health promotion and program management, personal training, rehabilitative exercise, and sport-specific athletic performance. Students may earn certifications in First Aid, Cardiopulmonary Resuscitation (CPR), Bleeding Control, and the American Sport Education Prog ram (ASEP) Coaching Certificate. The program also prepares students for the National Strength and Conditioning Association's Certified Personal Trainer (NSCA-CPT) exam. All students complete a supervised field experience in exercise science an athletic environments, integrating classroom learning with real-world professional practice.

PROGRAM OUTCOMES

- Succeed academically upon transfer to a baccalaureate program related to exercise science;
- Secure employment in the field of exercise science;
- Demonstrate the knowledge, skills, and ethical integrity necessary to succeed and grow as a health, wellness, fitness, and/or athletic performance professional;
- Apply scientific and physiological principles to the promotion and enhancement of health, wellness, fitness, and athletic performance;
- Assess and evaluate an individual's health and performance;
- Prescribe workouts for generally healthy individuals as well as for athletic populations and those with special considerations;
- Conduct safe and effective training sessions with generally healthy individuals.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BIO 103	Anatomy and Physiology I	4
CSH 100	College Success for Health Professions	2
ENG 101	English Composition I	3
HPE 151	Introduction to Exercise Science	1
MAT 125	Elementary Statistics I	3
PSY 101	Introduction to Psychology	3
SECOND SEMESTER		
BIO 104	Anatomy and Physiology II	4
ENG 102	English Composition II	3
HPE 105	First Aid, CPR, and AED	3
HPE 171	Personal Fitness	1
HPE 111	Living with Health	
	OR	3
HPE 113	Medical Terminology	
THIRD SEMESTER		
HPE 134	Prevention Care of Athl Injuries	3
HPE 164	Principles of Coaching	3
HPE 242	Exercise Measurement and Prescription	3
PTA 105	Kinesiology	3
HPE 101	Basic Concepts of Nutrition	3
FOURTH SEMESTER		
BUS 102	Intro Sport Management	3
HPE 241	Applied Exercise Physiology	3
HPE 243	Exercise Science Field Experience	3
Gen Ed	General Education Recommended CMN 111, CMN 112, PSY 206, PSY 207, HOS 115 or any language	3
Gen Ed	General Education Recommended CMN 111, CMN 112, PSY 206, PSY 207, HOS 115 or any language	3
		60

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Science, Health Professions, and Nursing Division

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Fashion/Apparel Design

ASSOCIATE IN APPLIED SCIENCE DEGREE IN VISUAL ARTS (A.A.S.)

Programs **FASH.APP.AAS**
CIP 500407

The **Fashion/Apparel Design** A.A.S. degree prepares students for entry into the dynamic world of fashion or for further study at a four-year institution. The tri-state metro area of New York, New Jersey, and Pennsylvania is one of the nation's largest regions for the fashion/apparel industry, where skilled students can seek opportunities as assistant fashion designers, stylists, visual display artists, product and merchandise managers, and fashion illustrators.

The Fashion/Apparel Design program is highly interdisciplinary, providing a strong foundation in art, design, and technical studies while developing a perspective on both the creative and business aspects of the industry. The program also prepares students for advanced study at four-year colleges by paralleling the first two years of course requirements at several institutions. While the design sequence emphasizes core creative art skills, technical training focuses on computer applications used in the industry and sewing labs structured to mirror those of actual fashion/ apparel studios.

In addition to coursework, students focus on portfolio development throughout the program, and finalize a professional product in both hard copy and digital format in a capstone course. Students take advantage of field studies at design and/or production houses and have an opportunity to showcase their work in an annual fashion show.

The program may be pursued full-time or part-time. Some courses may only be offered during the day.

PROGRAM OUTCOMES

- Develop foundation art skills to apply to fashion/apparel design development;
- Develop and present ideas effectively in both written and oral formats;
- Understand current trends in the fashion industry from a global perspective;
- Demonstrate knowledge of a wide range of textiles and manufacturing processes;
- Use specialized computer applications to create fashion/apparel design elements;
- Drape fabrics on a dress form in preparation for pattern-making and sewing;
- Develop sewing skills/techniques to produce finished garments;
- Design and produce individual fashion and apparel pieces;
- Understand the basic principles of merchandising;
- Create a portfolio for use in transferring or gaining employment.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ART 102	Basic Drawing (1/4)	3
ART 105	Two-Dimensional Design (1/4)	3
ENG 101	English Composition I (3/0)	3
FAS 105	Fashion: The Global Marketplace (3/0)	3
MAT —	Mathematics elective MAT 120 or 125 recommended. Select in consultation with an academic advisor.	3
SECOND SEMESTER		
ART 104	Life Drawing (1/4)	3
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
FAS 120	Introduction to Fashion Industries (1/4)	3
FAS 130	Introduction to Textiles for Fashion (3/0)	3
FAS 140	Technical Skills for Apparel Production I (1/4)	3
THIRD SEMESTER		
ART 122	History of Art II (3/0)	
	OR	3
ART 125	Topics in Contemporary Art (3/0)	
ENG 102	English Composition II (3/0)	3
FAS 110	Introduction to Fashion Drawing (1/4)	3
FAS 140	Fashion Technology (1/4)	3
FAS 250	Technical Skills for Apparel Production II (1/4)	3
FOURTH SEMESTER		
ART 106	Three-Dimensional Design (1/4)	3
FAS 205	Fashion Visual Merchandising and Display (3/0)	
	OR	3
FAS 220	History of Costume Design (3/0)	
FAS 260	Fashion Industries Capstone and Portfolio (1/4)	3
HIS 113	World History Since 1500 (3/0)	3
— —	Science OR Technology general education elective DMA 144 recommended.	3
		60

Arts and Communication Division

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Fashion Merchandising

Programs **FASH.MRCH.AAS**
CIP 521902

ASSOCIATE IN APPLIED SCIENCE DEGREE IN BUSINESS MANAGEMENT (A.A.S.)

The **Fashion Merchandising** option of the Business Management A.A.S. degree prepares students for careers in fashion/apparel sales, marketing, buying, and merchandising. Positions available to those with this educational specialization include retail merchandiser, planning and allocation, fashion/apparel sourcing specialist, and wholesale or retail buying manager.

The program also prepares students for advanced study in business or marketing in a fashion/apparel-related program. The MCCC Fashion Merchandising curriculum parallels the first two years of education at a majority of undergraduate universities and art colleges, with an emphasis on career training for gainful employment. The two-year experience allows students to develop a perspective by combining fashion studies with business and general education courses.

Successful graduates of the Fashion Merchandising option will be qualified for entry-level positions in the field of fashion merchandising, buying, retail planning, and marketing. After graduation, students may either begin their careers or choose to transfer to bachelor degree programs at colleges offering Fashion Merchandising degrees.

PROGRAM OUTCOMES

- Apply computational skills relevant to the fashion and retail industries;
- Demonstrate knowledge of the fashion industry from concept to consumer;
- Use the principles of marketing to perform duties required of entry-level fashion merchandising/marketing positions;
- Develop an appreciation for style and product quality;
- Communicate and present ideas in both written and oral formats;
- Demonstrate customer service and management techniques applicable to the fashion industry;
- Understand how the global economy and international events affect domestic business decisions.

Students may study full-time or part-time and may receive credit for previous training by applying for credit-by-experience, credit-by-articulation, or credit-by-examination. Some courses may only be offered during the day. Students should consult with their academic advisor to ensure adherence to the correct sequence of courses.

Admission to the program requires a high school diploma or its equivalent.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BUS 101	Introduction to Business (3/0)	3
ENG 101	English Composition I (3/0)	3
FAS 105	Fashion: The Global Marketplace (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	3
MAT —	Mathematics elective MAT 120 or 125 recommended. Select in consultation with an academic advisor.	3
SECOND SEMESTER		
CMN 111	Speech: Human Communication (3/0) OR	3
CMN 112	Public Speaking (3/0)	
ENG 102	English Composition II (3/0)	3
FAS 120	Introduction to Fashion Industries (1/4)	3
FAS 130	Introduction to Textiles for Fashion (3/0)	3
MKT 101	Principles of Marketing (3/0)	3
THIRD SEMESTER		
ACC 106	Office Accounting I (3/0)	3
CIS 175	PC Applications: Spreadsheets (2/2)	3
FAS 205	Fashion Visual Merchandising and Display (3/0)	3
FAS 220	History of Costume Design (3/0)	3
— —	General Education elective Select in consultation with an academic advisor.	3
FOURTH SEMESTER		
BUS 239	Entrepreneurship (3/0)	3
ECO 103	Basic Economics (3/0)	3
FAS 230	Fundamentals of Fashion Retail Buying and Merchandising (3/0)	3
FAS 260	Fashion Industries Capstone and Portfolio (1/4)	3
PHI 204	Ethics (3/0)	3
		60

Arts and Communication Division

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Fire Science Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **FIRE.SCI.AAS**
CIP 430201

The associate degree program in **Fire Science Technology** provides students with the skills and knowledge to become highly competitive candidates for entry and/or advancement as professional and volunteer fire and emergency services personnel.

The FIR 110 course (Fire Prevention and Code Enforcement I) meets the educational requirements of the New Jersey Division of Fire Safety for Fire Inspector. FIR 209 (Fire Prevention and Code Enforcement II) meets the educational requirements for Fire Official. Students seeking a career in fire code enforcement are encouraged to check with the New Jersey Division of Fire Safety for other certification requirements.

Based on a national curriculum that promotes learning and advocacy of critical emergency service leadership and fire safety principles, the associate degree program integrates technical study with coursework in mathematics, English, physical science, and liberal arts to provide graduates with the necessary ancillary knowledge to advance into supervisory and/or management-level positions.

PROGRAM OUTCOMES

- Discuss the history, support organizations, resources, incident management, training, and emergency operations and relate how each plays a role within the fire service;
- Define and use basic terms and concepts associated with the chemistry and dynamics of fire;
- Apply principles of hydraulics, building construction, strategy, and tactics to fire ground operations;
- Communicate the relationship of fire prevention and fire inspection;
- Demonstrate the importance of public education in relation to fire prevention;
- Evaluate facilities to appraise code compliance and potential hazards, building construction issues, and presence of appropriate fire protection systems to help ensure life safety both pre-incident and during an incident;
- Employ safe work practices using recognized standards and regulations.

Students pursuing programs in fire science should be aware that various municipal and industrial fire service agencies establish physical, mental, and character requirements. Persons interested in this option are advised to gain an awareness of the specific requirements for their desired work setting. MCCC graduates are employed by city, state, and federal departments dedicated to the fire services field.

Since the degree program is designed to meet the needs of the part-time student, it normally will take a minimum of three years to complete. All fire science courses are offered in the evening.

Fire Science Technology is not designed as a transfer program and some credit loss may occur for those who intend to continue their education at a four-year institution. Students interested in transferring should contact the program advisor early in their coursework at MCCC.

Admission to the program requires a high school diploma or its equivalent and competency in English and mathematics as demonstrated by placement testing.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
FIR 101	Introduction to Fire Science (3/0)	3
FIR 104	Building Construction (3/0)	3
MAT —	Mathematics elective MAT 120 or 125 recommended. Select in consultation with an academic advisor.	3
SECOND SEMESTER		
FIR 202	Water Supply for Fire Protection (3/0)	3
FIR 204	Fire Fighting Tactics (3/0)	3
FIR —	Fire Science elective Select from FIR 205, 206, 208, 209, 211	3
— —	Social Science or Humanities general education elective	3
CMN 111	Speech: Human Communication OR	3
CMN 102	English Composition II (3/0)	
THIRD SEMESTER		
PHY 111	Physical Science Concepts (2/2)	3
FIR 110	Fire Prevention and Code Enforcement I (6/2)	7
FIR —	Fire Science elective Select from FIR 205, 206, 208, 209, 211	3
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.	3
FOURTH SEMESTER		
FIR 201	Hazardous Materials I (3/0)	3
FIR 203	Fire Protection Systems (3/0)	3
FIR —	Fire Science elective Select from FIR 205, 206, 208, 209, 211.	3
FIR —	Fire Science elective Select from FIR 205, 206, 208, 209, 211	3
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.	3
		60

Business, Technology, and Professional Studies Division
609.570.3482 - **admiss@mccc.edu**

NOTE: All program listings are subject to periodic updates.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_degree**

Funeral Service

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The goals and objectives of the MCCC **Funeral Service** programs are: to provide students with professional training in preparation for licensure in Funeral Service; to prepare students to embark upon a career in a service-oriented, care-giving profession; to provide an academic environment which encourages student research and successfully integrates the theoretical, practical, and technical aspects of funeral service; and to foster the concept of education as a life-long process necessary to meet the demands of an evolving workplace with current emphasis on emerging ethical, environmental, and social issues.

Academic emphasis includes the areas of business management; public health; the social, behavioral, and natural sciences; as well as the legal, technical, and regulatory aspects of funeral service.

Students have two options for completion of their professional education: Funeral Service Certificate and Funeral Service Associate in Applied Science degree. Both programs can be completed either full- or part-time.

Following consultation with the Program Director, the A.A.S. degree program may be selected as a graduation option (not an admissions option) in order to ensure that candidates have the requirements for licensure in their selected state.

Students are responsible for securing part-time employment in an approved New Jersey or eastern Pennsylvania funeral home in order to complete the field experience and practicum courses. This requires the student to be registered as an Intern with the New Jersey State Board of Mortuary Science or as a Funeral/Student Trainee with the Pennsylvania Board of Funeral Directors.

Upon completion of all coursework, graduates will be eligible to take the National Board Exam (NBE). Following the NBE, graduates will be cleared to take state licensing examinations.

PROGRAM OUTCOMES

- Explain the importance of funeral service professionals in developing relationships with the families and communities they serve;
- Identify standards of ethical conduct in funeral service practice;
- Interpret how federal, state, and local laws apply to funeral service in order to ensure compliance;
- Apply principles of public health and safety in the handling and preparation of human remains;
- Demonstrate technical skills in embalming and restorative art that are necessary for the preparation and handling of human remains;
- Demonstrate skills required for conducting arrangement conferences, visitations, services, and ceremonies;
- Describe the requirements and procedures for burial, cremation, and other accepted forms of final disposition of human remains;
- Describe methods to address the grief-related needs of the bereaved;
- Explain management skills associated with operating a funeral establishment;
- Demonstrate verbal and written communication skills and research skills needed for funeral service practice.

The annual passage rate of first-time takers on the National Board Examination (NBE) for the most recent three-year period for this institution and all ABFSE accredited funeral service education programs is posted on the ABFSE website (www.abfse.org).

The Funeral Service program at Mercer County Community College is accredited by the
American Board of Funeral Service Education (ABFSE)
992 Mantua Pike, Suite 108
Woodbury Heights, NJ 08097
816-233-3747 / exdir@abfse.org / www.abfse.org

National Board Examination pass rates, graduation rates (beginning in 2025), and employment rates (beginning in 2025) for this and other ABFSE-accredited programs are available at www.abfse.org. To request a printed copy of this program's pass rates and graduation rates: West Windsor Campus room BS105, e-mail aldjusg@mccc.edu, lubovm@mccc.edu or telephone (609) 570-3866 or 570-3328.

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Funeral Service (cont'd)

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
PSY 101	Introduction to Psychology (3/0)	3
MAT —	Mathematics general education elective 100-level or higher	3-4
— —	General Education elective Select course from the following general education categories: Humanities, Historical Perspective, Diversity and Global Perspective.	3
SECOND SEMESTER		
ACC 106	Office Accounting I (3/0)	3
BIO 106	Human Anatomy (3/2) BIO 103 and 104 may be substituted.	4
BUS 107	Business Law I (3/0)	3
ENG 102	English Composition II (3/0)	3
CHE —	Chemistry elective CHE 100 or higher.	3
THIRD SEMESTER		
FUN 203	Funeral Service Principles	
FUN 206	Introduction to Funeral Service (3/0)	3
FUN 215	Funeral Service Law (3/0)	
FUN 247	Principles of Embalming I (3/0)	3
FUN 223	Funeral Service Pathology (3/0)	3
FUN 251	Embalming Lab and Practicum (0/3/2 days) In addition to lab and/or seminar, these courses include two days (16 hours per week) of supervised off-campus field experience in an approved funeral service firm for each semester. Students must also be registered as an intern with the New Jersey State Board of Mortuary Science or as a student trainee with the Pennsylvania Board of Funeral Directors. Registration with the New Jersey State Board of Mortuary Science enables the student to receive credit toward the New Jersey internship requirement.	3

Curriculum

FOURTH SEMESTER		
FUN 217	Funeral Service Management (3/0)	3
FUN 227	Restorative Art (2/2)	3
BIO 215	Principles of Microbiology	1
FUN 249	Principles of Embalming II (2/0)	2
FUN 229	Funeral Service Counseling (3/0)	3
FUN 222	National, State, & Local Application of Law	1
FUN 295	Funeral Service Field Experience (2/0/2 days) In addition to lab and/or seminar, these courses include two days (16 hours per week) of supervised off-campus field experience in an approved funeral service firm for each semester. Students must also be registered as an intern with the New Jersey State Board of Mortuary Science or as a student trainee with the Pennsylvania Board of Funeral Directors. Registration with the New Jersey State Board of Mortuary Science enables the student to receive credit toward the New Jersey internship requirement.	3
		66-67

NOTE: Enrollment in any FUN course requires approval of the Director of Funeral Service Programs. New Jersey and Pennsylvania students must complete 60 college credits before enrolling in FUN courses. At the conclusion of the program, the student will have a minimum of 96 credits.

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Funeral Service

CERTIFICATE OF PROFICIENCY

Programs **CPA.ACC26.CERT**
CPA.BUS24.CERT
CIP 520303

The **Funeral Service** certificate program completes the educational requirements for licensure in Funeral Service. Admission to the certificate program and/or enrollment in any FUN course requires two years (60 credits) of prior college education at a regionally accredited institution of higher education (or completion of the Funeral Service Preparatory program). Class size is limited.

Applicants to the certificate program must complete prerequisite courses of Anatomy and Physiology I and II (BIO 106 fulfills this requirement), accounting, business law, chemistry, psychology, and English composition with a minimum grade of C. An overall C+ cumulative grade point average is required for admission.

Students are responsible for securing part-time employment in an approved New Jersey or eastern Pennsylvania funeral home in order to complete the field experience and practicum courses. This requires the student to be registered as an Intern with the New Jersey State Board of Mortuary Science or as a Funeral/Student Trainee with the Pennsylvania Board of Funeral Directors.

The goals and objectives of the MCCC Funeral Service programs are: to provide students with professional training in preparation for licensure in funeral service; to prepare students to embark upon a career in a service-oriented, care-giving profession; to provide an academic environment which encourages student research and successfully integrates the theoretical, practical, and technical aspects of funeral service; and to foster the concept of education as a life-long process necessary to meet the demands of an evolving workplace with current emphasis on emerging ethical, environmental, and social issues.

Academic emphasis includes the areas of business management; public health; the social, behavioral, and natural sciences; as well as the legal, technical, and regulatory aspects of funeral service.

Upon completion of all coursework, graduates will be eligible to take the National Board Exam. Following the NBE, graduates will be cleared to take state licensing examinations.

PROGRAM OUTCOMES

- Evaluate the service needs for the pre-need, at-need, and aftercare time frames;
- Create and plan activities and ceremonies designed to meet the needs of those who mourn;
- Educate the consumer regarding funeral and cremation memorialization and merchandise options;
- Evaluate, describe, and implement solutions to current embalming and restorative art situations;
- Assemble and formulate appropriate information for death certificates, obituaries, and other necessary forms and documents;
- Evaluate legal, professional, and ethical issues facing funeral service;
- Demonstrate effective verbal and written communication skills in face to face meetings, in front of small groups, and via electronic means.

Note: With proper planning, students anticipating Fall matriculation into the certificate program can normally complete the prerequisites in one Spring semester. Full-time matriculation in the day program is only available beginning in Fall semesters; full-time matriculation in the night program is only available in the Spring semester; part-time night matriculation is available both Spring and Fall semesters.

The annual passage rate of first-time takers on the National Board Examination (NBE) for the most recent three-year period for this institution and all ABFSE accredited funeral service education programs is posted on the ABFSE website (www.abfse.org).

The Funeral Service program at Mercer County Community College is accredited by the **American Board of Funeral Service Education (ABFSE)**

992 Mantua Pike, Suite 108
Woodbury Heights, NJ 08097
816-233-3747 / exdir@abfse.org / www.abfse.org

Business, Technology, and Professional Studies Division

609.570.3482 - **admiss@mccc.edu**

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Funeral Service (cont'd)

CERTIFICATE OF PROFICIENCY

Curriculum

Code	Course (lecture/lab hours)	Credits
FUN 206	Introduction to Funeral Service (3/0)	3
FUN 247	Principles of Embalming I (3/0)	3
FUN 203	Funeral Service Principles (3/0)	3
FUN 223	Funeral Service Pathology (3/0)	3
FUN 215	Funeral Service Law (3/0)	3
FUN 295	Funeral Service Field Experience (2/0/2 days) In addition to lab and/or seminar, these courses include two days (16 hours per week) of supervised off-campus field experience in an approved funeral service firm for each semester. Students must also be registered as an intern with the New Jersey State Board of Mortuary Science or as a student trainee with the Pennsylvania Board of Funeral Directors. Registration with the New Jersey State Board of Mortuary Science enables the student to receive credit toward the New Jersey internship requirement.	3
ENG —	English Composition elective (3/0) Students having completed ENG 101, 102, 112, 209, 215, or 224 have fulfilled this requirement.	3
FUN 249	Principles of Embalming II (2/0)	3
FUN 217	Funeral Service Management (3/0)	3
FUN 227	Restorative Art (2/2)	3
FUN 229	Funeral Service Counseling (3/0)	3
BIO 215	Principles of Microbiology (3/0)	3
FUN 251	Embalming Lab and Practicum (0/3/2 days) In addition to lab and/or seminar, these courses include two days (16 hours per week) of supervised off-campus field experience in an approved funeral service firm for each semester. Students must also be registered as an intern with the New Jersey State Board of Mortuary Science or as a student trainee with the Pennsylvania Board of Funeral Directors. Registration with the New Jersey State Board of Mortuary Science enables the student to receive credit toward the New Jersey internship requirement.	3
FUN 222	National, State, & Local Application of Law	2
		41

NOTE: Enrollment in any FUN course requires the approval of the Director of Funeral Service Programs.

National Board Examination pass rates, graduation rates (beginning in 2015), and employment rates (beginning in 2015) for this and other ABFSE-accredited programs are available at www.abfse.org. To request a printed copy of this program's pass rates and graduation rates: West Windsor Campus room BS105, e-mail daleym@mccc.edu or rosenbej@mccc.edu, or telephone (609) 570-3472 or 570-3474.

Business, Technology, and Professional Studies Division

609.570.3482 - admiss@mccc.edu

NOTE: All program listings are subject to periodic updates.
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Funeral Service Preparatory

Programs **FUNERAL.PRE.AAS**
CIP 520201

ASSOCIATE IN APPLIED SCIENCE DEGREE IN BUSINESS MANAGEMENT (A.A.S.)

High school graduates and students with fewer than 30 college credits should select the Funeral Service Preparatory option of the Management program. This program prepares students for admission to the Funeral Service certificate program. Combining business subjects, health sciences and behavioral sciences, the option is designed to meet the New Jersey and Pennsylvania requirement for two years of college prior to the Funeral Service certificate program. (Funeral Service Preparatory or its equivalent must be completed in order to enter the Funeral Service certificate program or to take any FUN course.)

The goals and objectives of the MCCC Funeral Service programs are: to provide students with professional training in preparation for licensure in funeral service; to prepare students to embark upon a career in a service-oriented, care-giving profession; to provide an academic environment which encourages student research and successfully integrates the theoretical, practical, and technical aspects of funeral service; and to foster the concept of education as a life-long process necessary to meet the demands of an evolving workplace with current emphasis on emerging ethical, environmental, and social issues.

Academic emphasis includes the areas of business management; public health; the social, behavioral, and natural sciences; as well as the legal, technical, and regulatory aspects of funeral service.

Students in the program who have an affiliation with an approved funeral service firm can receive college credit for their work experience. These supervised, off-campus internship courses require 16 hours per week, and students must be registered with the New Jersey State Board of Mortuary Science or the Pennsylvania Board of Funeral Directors. Placement is each student's responsibility.

An advisory commission, consisting of active participants in funeral service, offers expertise to ensure that the Funeral Service programs meet the educational needs of future funeral directors.

PROGRAM OUTCOMES

- Develop the foundation for academic success in the Funeral Service program;
- Identify the economic, social, and ethical environment in which business entrepreneurs must operate;
- Investigate computer applications that will aid a successful funeral business;
- Demonstrate verbal and written communication skills in face to face meetings, in front of small groups, and via electronic means.

Admission to this program requires a high school diploma or its equivalent. Students should have two years of high school mathematics. Also recommended is one year each of high school laboratory science in biology and chemistry.

Business, Technology, and Professional Studies Division

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NOTE: All program listings are subject to periodic updates.
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Funeral Service Preparatory

Programs **FUNERAL.PRE.AAS**
CIP 520201

ASSOCIATE IN APPLIED SCIENCE DEGREE IN BUSINESS MANAGEMENT (A.A.S.)

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BUS 101	Introduction to Business (3/0)	3
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
MAT —	Mathematics elective Select from MAT 115, 120, 125. Students planning to attend a four-year college should discuss course transfer options with an academic advisor.	3
BUS 211	Funeral Service Internship I (1/0/2 days)*	
	Introduction to Psychology (3/0)	2
— —	Elective Students planning to attend a four-year college should discuss course transfer options with an academic advisor.	
SECOND SEMESTER		
ACC 106	Office Accounting I (3/0) Students planning to attend a four-year college should discuss course transfer options with an academic advisor.	3
CHE 100	Introductory Chemistry (3/0)	3
ENG 102	English Composition II (3/0)	3
CIS 105	Excel Basics	1
PSY 101	Introduction to Psychology (3/0)	3
SOC 101	Introduction to Sociology (3/0)	3
BUS 212	Funeral Service Internship II (1/0/2 days)*	
	OR	2
— —	Elective Students planning to attend a four-year college should discuss course transfer options with an academic advisor.	
THIRD SEMESTER		
BIO 106	Human Anatomy (3/2)	4
BUS 210	Principles of Management (3/0)	3
MKT 101	Principles of Marketing (3/0)	3
— —	General Education elective Select course from the following general education categories: Humanities, Historical Perspective, Diversity and Global Perspective, Written and Oral Communication.	3
BUS 213	Funeral Service Internship III (1/0/2 days)*	
	OR	2
— —	Elective Students planning to attend a four-year college should discuss course transfer options with an academic advisor.	

Curriculum

FOURTH SEMESTER		
BUS 107	Business Law I (3/0)	3
ECO 103	Basic Economics (3/0) Students planning to attend a four-year college should discuss course transfer options with an academic advisor.	3
IST 101	Computer Concepts with Applications (2/2)	3
BUS —	Business elective Recommended: BUS 108, 109, 209, 225, 240; MKT 106, 230. Students planning to attend a four-year college should discuss course transfer options with an academic advisor.	3
BUS 214	Funeral Service Internship IV (1/0/2 days)*	
	OR	2
— —	Elective Students planning to attend a four-year college should discuss course transfer options with an academic advisor.	
		60

*Supervised off-campus work experience in an approved funeral service firm for 16 hours per week. Students must also register with the New Jersey State Board of Mortuary Science or the Pennsylvania Board of Funeral Directors (depending upon the state in which they will be working). This registration enables New Jersey interns to receive credit toward their State internship requirement. Students may select a total of eight credits of electives in place of BUS 211, 212, 213, and 214 if they are not registered as interns or student trainees in Funeral Service Internship.

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Game Design

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The A.A.S. degree program in **Game Design** helps to prepare graduates for careers in the video game software industry, a relatively new and rapidly expanding industry. The New York City / northern New Jersey metro region is one of the ten largest in the country for video game design and development. Game Design is a highly interdisciplinary field drawing from a number of diverse areas such as art, writing, sound design, sociology, anthropology, computer technology, and programming.

The computer is the primary tool of expression in the program; however, emphasis is placed on the development of creative thinking as well as art and design skills. Students should expect to use and develop skills with scripting tools to program interactive functionality. Most coursework takes place in a studio using regularly updated professional-quality hardware and software on both Macintosh and PC computer platforms.

The Game Design program prepares graduates for positions as game designers, level designers, interface designers, producers, production assistants, and game artists. Typical employers include game design firms, entertainment software companies, educational resource development companies, interactive design companies, game development companies and research, government, and military organizations.

The Game Design program may be pursued full-time or part-time. Some courses may be offered only during the evening.

PROGRAM OUTCOMES

- Understand the historical development of game play;
- Apply the design process to the research and development of professional video game concepts;
- Apply narrative structures in the design of video games and levels;
- Describe and reference industry trends and technologies in video gaming;
- Design meaningful video game experiences and game mechanics appropriate to context;
- Create diagrams, storyboards, and prototypes to specify game design concepts;
- Develop games with level editing and scripting tools within industry standard game engines;
- Understand basic programming concepts and apply scripting languages to create interaction in game environments;
- Create 2D and 3D game art assets from game concepts, utilizing professional 2D digital imaging and 3D modeling and animation software;
- Work effectively on interdisciplinary teams producing functioning games and levels.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ART 102	Basic Drawing (1/4)	3
ART 105	Two-Dimensional Design (1/4)	3
DMA 115	Vector Drawing (1/4)	3
ENG 101	English Composition I (3/0)	3
GAM 120	Game Design Theory and Culture (1/4)	3
SECOND SEMESTER		
DMA 120	3-D Modeling I (1/4)	3
DMA 135	Digital Narrative (1/4)	3
ENG 102	English Composition II (3/0)	3
GAM 140	Game Design I (1/4)	3
— —	Career elective Select from ADV 220, ART 104, 106, CMN 101, 102, 144, 146, 147, 153, 253, DMA 110, 210, 225, 226, ENG 215	3
THIRD SEMESTER		
GAM 145	Game Programming I (2/2)	3
GAM 240	Game Design II (1/4)	3
DMA —	Animation elective (1/4) Select from DMA 225 or 226.	3
MAT —	Mathematics elective Select from MAT 120 or MAT 125.	3
— —	Career elective ADV 220, ART 104, 106, CMN 101, 102, 144, 146, 147, 153, 253, DMA 110, 210, 225, 226, ENG 215	3
FOURTH SEMESTER		
ART 125	Topics in Contemporary Art (3/0)	3
CMN 112	Public Speaking (3/0)	3
GAM 260	Game Development (1/4)	3
— —	Lab Science general education elective Select in consultation with an academic advisor.	3
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.	3
		60

NOTE: Students must maintain a minimum grade of C in all GAM and DMA courses.

Arts and Communication Division

609.570.3378 - **admiss@mccc.edu**

NOTE: All program listings are subject to periodic updates.
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Game Programming

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The A.A.S. degree in **Game Programming** prepares students for careers in the video game industry. With advances in online social networks as well as console, stereoscopic, and smart phone technology fueling rapid expansion, the video game industry boasts revenues of around $24 billion in the United States alone, according to the newly formed Congressional Caucus for Competitiveness in Entertainment Technology (E-Tech Caucus).

The Game Programming program prepares students for a number of career options, including game designer, software engineer, artificial intelligence programmer, graphics engineer, physics programmer, and user interface scripter.

Typical employers include game design studios, entertainment software companies, and online entertainment and education companies. The New York City / northern New Jersey metro region is one of the ten largest in the country for video game development, accounting for more than 70 game-affiliated companies.

Students explore and analyze professional game engines, scripting languages, graphics, networks, physics, and other components of game development. Most coursework takes place in a studio using regularly updated professional-quality hardware and software on PC computer platforms. Moreover, in their last year of study, Game Programming students collaborate with students from the Game Design program to produce a full, playable video game.

PROGRAM OUTCOMES

- Understand the historical development of games;
- Describe and reference industry trends and technologies in video gaming;
- Apply the design process to research and develop professional video game concepts;
- Create diagrams and prototypes to specify game design concepts;
- Create a professional sales pitch for a game concept;
- Program game engine components such as resource management, entity-based systems, physics simulation, and user interfaces;
- Create a custom 2-D game engine;
- Develop skills to be a self-learner and problem solver;
- Work effectively on interdisciplinary teams producing functioning games and levels

The Game Programming program may be pursued full-time or part-time. Admission requires a high school diploma or its equivalent and competency in English and mathematics as demonstrated by placement testing.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
GAM 120	Game Design Theory and Culture (1/4)	3
ART 102	Basic Drawing	3
ART 105	Two Dimensional Design	3
DMA 115	Vector Drawing	3
ENG 101	English Composition I (3/0)	3
SECOND SEMESTER		
GAM 140	Game Design I	3
DMA 135	Digital Narrative	3
DMA 120	3D Modeling I	3
IST 108	Introduction to Programming with Mobile Application Development (3/2)	4
MAT 146	Pre-Calculus (4/0)	
	OR	3
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0)	
THIRD SEMESTER		
COS 210	Computer Science II – Data Structures (3/2)	4
GAM 140	Game Design I (1/4)	
	OR	3
GAM 240	Game Design II (1/4)	
GAM 245	Game Programming II (1/4)	3
IST 218	iOS Application Development (3/2)	4
— —	Technical elective Select from CMN 153; DMA 120, 135, 145, 225.	3
FOURTH SEMESTER		
CMN 146	Social Media Technologies (2/2)	3
GAM 260	Game Development (1/4)	3
— —	Technical elective Select from CMN 153; DMA 120, 135, 145, 225.	3
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Historical Perspective.	3
		60

NOTE: Students must earn a minimum grade of C in all COS, DMA, GAM, and IST courses.

Arts and Communication Division

609.570.3378 - **admiss@mccc.edu**

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Healthcare Management

CERTIFICATE IN HEALTHCARE MANAGEMENT

The Healthcare Management Certificate is designed to equip students with foundational knowledge and skills in business operations, leadership, and administration. This program provides a comprehensive introduction to the business, focusing on essential topics such as organizational management, business law, employee relations, and customer service.

Students will gain a versatile skill set that prepares them for entry-level roles in healthcare management or to enhance their current healthcare-related career. The certificate also serves as a pathway for further academic advancement, seamlessly transitioning students into professional-phase healthcare programs or a degree in Health Administration.

This certificate program is intentionally designed to align with academic pathways in healthcare disciplines. Students completing the certificate can transition directly into professional-phase healthcare programs, such as medical laboratory technology, nursing, physical therapist assistant, radiography, other allied health fields, or continue their education toward a bachelor's degree in Health Administration. The courses within the certificate program fulfill prerequisites and provide transferable credits to streamline the journey toward a degree, minimizing redundancy and maximizing value.

PROGRAM OBJECTIVES

- Apply knowledge of management to navigate organizational challenges, ensure legal compliance, maintain customer orientation, and contribute to effective healthcare operations.
- Define essential competencies managing personnel and leading teams to achieve organizational goals.

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I	3
MAT 125	Elementary Statisitics	3
BIO 103	Anatomy and Physiology I	4
PSY 101	Introduction to Psychology	3
CSH 100	College Success for Health Professions	2
BUS 210	Principles of Management	4
BUS 107	Business Law I	3
BUS 240	Human Resource Management	3
BUS 202	Customer Orientation	3
BUS 225	Employee Motivation and Leadership	3
		30

Science, Health Professions, and Nursing Division

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NOTE: All program listings are subject to periodic updates.
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Health Science

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The **Health Science** meta major provides a common pathway within the first two semesters for students interested in pursuing a degree or working in an allied health career area. The core curriculum consists of general education, mathematics, and science courses.

For subsequent semesters, students select from among three pathway options leading to an Associate in Applied Science or Associate in Science degree. Total credits required for each option vary, consistent with the area of study and/or associated accrediting agency.

PROGRAM OUTCOMES

- Develop the knowledge, skills, and professional requirements of an allied health professional;
- Demonstrate the ability to apply the scientific method to gather and use information;
- Integrate critical thinking and problem solving appropriate for student's allied health discipline;
- Exhibit proficiency in the scientific area of student's licensure/certification.

Science, Health Professions, and Nursing Division

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Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BIO 103	Anatomy and Physiology I (3/3)	4
CSH 100	College Success for Health Professions (1/1) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
PSY 101	Introduction to Psychology (3/0)	3
SECOND SEMESTER		
BIO 104	Anatomy and Physiology II (3/3)	4
ENG 102	English Composition II (3/0)	3
– –	General Education elective Refer to requirements specified in chosen pathway option (below).	3
– –	General Education elective Refer to requirements specified in chosen pathway option (below).	3
		28

NOTE: Students must earn a minimum grade of C in all science and math core courses. Students interested in the Rider University guaranteed transfer for the Allied Health Studies B.S. degree must see the Health Science program coordinator.

PATHWAY OPTIONS FOR FOLLOWING SEMESTERS

HEALTH SCIENCE A.A.S. DEGREE

An opportunity for eligible health care professionals to earn the Associate in Applied Science degree and prepare for transfer to a four-year institution offering a baccalaureate program in the health sciences. This program is designed for individuals already possessing allied health credentials, or current students seeking a program change. Professional core credits are awarded for previously held licenses or certification according to the didactic and clinical hours of study.

COURSES	CREDITS
Core Curriculum[1]	28
Science elective[2]	3-4
SFMC Technical and Professional courses[3]	12
Diploma from SFMC	18
Total Degree Credits:	61-62

[1] SECOND SEMESTER: Select courses from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.
[2] Select from Microbiology (BIO 201), Genetics (BIO 208), Organic Chemistry I (CHE 201).
[3] Select from BIO 101, 102, 201, 208, 217; BUS 105, 209; CHE 101, 102, 107, 201; CIS 173, 175; CMN 111, 112; HPE 101, 105, 113, 151, 241; MAT 125, 126, 140, 146, 200; MLT 112; MOA 101, 103; NUR 151; PBH 101; PHI 205; PHY 101, 102, 109, 111; PTA 105; SPA 101, 102, 121, 122.
* Consult Health Science program coordinator for details

HEALTH PROFESSIONS PROGRAMS

For complete details on each option, refer to pages dedicated to each program:

- Exercise Science
- Medical Laboratory Technology*
- Nursing*
- Occupational Therapy Assistant* (with Rutgers University)
- Physical Therapist Assistant*
- Public Health
- Radiography*
- Respiratory Care* (with Brookdale Community College)

*Admission to licensure-based programs is limited to a specific number of candidates due to accrediting and clinical agency requirements. Students must petition for entry, completing application requirements by the end of the first semester of meta major Core Curriculum. Once accepted, students follow the degree requirements for their chosen program.

COURSES	CREDITS
Core Curriculum[1]	28
Total Degree Credits:	vary, depending on chosen program

[1] SECOND SEMESTER: Select general education courses in accordance with requirements stipulated in the chosen Health Professions program. Consult coordinator of that specific program for details.

The two-semester (or less) Medical Office Assistant Certificate of Proficiency can also be started following the meta major's *first semester*.

RADIOGRAPHY CONCENTRATION AT ST. FRANCIS MEDICAL CENTER

This Health Science degree with a JRCERT (Joint Review Committee on Education in Radiologic Technology) accredited Hospital Based Radiography Diploma Program concentration allows graduates to meet eligibility requirements for the American Registry of Radiologic Technologists (ARRT) certification examination and prepares students for transfer into a four-year program. Students must apply for acceptance from the SFMC (Trenton) School of Radiologic Technology.

COURSES	CREDITS
Core Curriculum[1]	28
Science elective[2]	3-4
SFMC Technical and Professional courses[3]	12
Diploma from SFMC	18
Total Degree Credits:	61-62

[1] SECOND SEMESTER: Select from PHI 204 or 205 along with one course from Diversity and Global Perspective general education category.
[2] Select from BIO 115, 201; PHY 109 (preferred).
[3] St. Francis Medical Center School of Radiologic Technology approved courses:
RAD CT - Computerized Tomography and Cross Sectional Anatomy
RAD PRO201 - Radiographic Procedures 201
RAD MT - Medical Terminology
RAD PC I - Patient Care I
RAD PC II - Patient Care II

NOTE: All program listings are subject to periodic updates.
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Horticulture

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **HORT.ORN.AAS**
HORT.LAND.AAS
HORT.PROD.AAS
CIP 010603

Horticulture is a profession that combines the creativity of design with the knowledge of science and the practical experience of making projects successful. The **Ornamental Horticulture** A.A.S. degree program trains students in the areas of landscape design, floral design, landscape planning and design, production horticulture, nursery and greenhouse production, and turf maintenance.

Hands-on classes conducted in a complex of two greenhouses, surrounding gardens, and an extensive campus grounds are designed to prepare graduates to excel in a rapidly expanding horticulture industry. Excellent positions are available for trained professionals with strong backgrounds in the specialties covered at Mercer.

PROGRAM OUTCOMES

- Identify, propagate, and care for at least 300 different woody and herbaceous plant specimens;
- Implement a soils management plan using modern irrigation and nutrient control techniques;
- Properly apply common pesticides and fertilizers to achieve optimum growing conditions for plants and crops;
- Produce and manage common greenhouse crops;
- Practice integrated pest management.

Some graduates enter the profession immediately upon graduation, securing employment in nurseries, greenhouses, garden centers, landscape firms, golf courses, flower shops, and a variety of other businesses. Others elect to transfer to four-year institutions such as Delaware Valley University, Temple University, and Rutgers University.

At Mercer, many students work in the industry while pursuing their degree as evening students. In addition to gaining broad knowledge through the Ornamental Horticulture A.A.S. degree core curriculum, students select from among foud study concentrations:

The **Ornamental Horticulture** concentration (HORT.ORN.AAS) focuses on the production and use of plant material for aesthetic purposes. This concentration offers a wide variety of elective courses to choose from, so students can pursue the area of horticulture that most interests them.

Through the **Landscape Planning and Design** concentration (HORT.LAND.AAS), students learn how to measure a site, draw a base map, draw a design to scale, develop a plant list, color render the design, and work within a budget. Students also gain experience interviewing and presenting to clients.

Production Horticulture (HORT.PROD.AAS) focuses on the propagation and production of nursery and food crops.

Urban Agriculture (HORT.URBAN.AAS) allows students to study food production and distribution, urban forestry, and urban planning and design.

Another practical option for some students is the Certificate of Proficiency in Ornamental Horticulture, which emphasizes concentration in horticulture electives and preparation for direct entry into a career in horticulture. Credits earned can be applied toward the Ornamental Horticulture A.A.S. degree.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
OHT 101	Plant Science (2/2)	3
SUS 101	Introduction to Sustainability	3
MAT 140	Applied College Algebra	
	OR	4
MAT 146	Pre-Calculus	
SECOND SEMESTER		
BIO 202	Woody Plants (3/3)	4
ENG 102	English Composition II (3/0)	4
OHT 102	Ornamental Horticulture (2/2)	
OHT 108	Soil and Plant Nutrition (3/3)	3
SPRING, SUMMER, or FALL		
OHT 291	Ornamental Horticulture Cooperative Education I	3
OHT 292	Ornamental Horticulture Cooperative Education II	1
THIRD SEMESTER		
OHT 121	Herbaceous Plants (2/2)	3
OHT —	Concentration elective	3
OHT —	Concentration elective	3
BUS 101	Introduction to Business	
	OR	3
BUS 210	Principles of Management	
— —	Humanities general education elective Spanish (SPA) strongly recommended	3
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
FOURTH SEMESTER		
OHT 241	Equipment and Integrated Pest Management (2/2)	3
OHT —	Concentration elective	3
OHT —	Concentration elective	3
— —	Social Science general education elective POL 102 or PSY 101 strongly recommended	3
		60

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Horticulture (cont'd)

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **HORT.ORN.AAS**
HORT.LAND.AAS
HORT.PROD.AAS
CIP 010603

Curriculum

Code	Course (lecture/lab hours)	Credits
Ornamental Horticulture CONCENTRATION electives		
OHT 201	Basic Landscaping and Planning I	3
OHT 207	Floral Design I	3
OHT 219	Plant Propagation	3
OHT 226	Interior Plants Arboriculture	3
OHT 231	Turf Management	3
OHT 232	Nursery Management I	3
Landscape Planning and Design CONCENTRATION electives		
OHT 201	Basic Landscaping and Planning I	3
OHT 202	Basic Landscaping and Planning II	3
OHT 212	Landscape Construction	3
OHT 232	Nursery Management I	3
OHT 200	Urban Planning and Design	3
Production Horticulture CONCENTRATION electives		
OHT 204	Plant Diseases	3
OHT 217	Food Production and Distribution in an Urban State	3
OHT 219	Plant Propagation	3
OHT 232	Nursery Management Urban Planning and Design	3
BIO 203	Entomology	3
Urban Agriculture CONCENTRATION electives		
OHT 214	Urban and Peri-Urban Forestry Management	3
OHT 217	Food Production and Distribution in an Urban State	3
OHT 200	Urban Planning and Design	3
OHT 220	Aboriculture	3

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Horticulture
CERTIFICATE OF PROFICIENCY

Programs **HORT.CERT**
CIP 010603
HORT.URBAN.CERT
CIP 010610

Certificate Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
OHT 101	Plant Science (2/2)	3
OHT 102	Ornamental Horticulture (2/2)	3
OHT 291	Ornamental Horticulture Cooperative Education I	3
— —	Science elective Select from BIO 101, 114, 203, 204; CHE 101, 105.	3-4
— —	Technical electives Select from all OHT courses; BIO 202; CHE 100.	17-18
		32-34

Certificate Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
OHT 101	Plant Science (2/2)	3
OHT 102	Ornamental Horticulture (2/2)	3
OHT 291	Ornamental Horticulture Cooperative Education I	3
OHT 214	Urban and Peri-Urban Forestry Management	3
OHT 200	Urban Planning and Design	3
OHT 217	Food Production and Distribution in an Urban State	3
— —	Horticulture Electives Select from all OHT 219, 201, 232, 207, 241, 121, BIO 202	9-12
		32-34

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Hospitality Management

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The **Hotel, Restaurant and Institution Management** program prepares students for employment in various entry-level management careers in the lodging and food service industries. Areas of employment include assistant manager in hotel/motel operations; club, restaurant or banquet manager of commercial eating establishments; and assistant food service management positions in hospitals, schools and other institutions.

PROGRAM OUTCOMES

- Apply safe and sanitary practices within any food production department compliant with laws and safety regulations;
- Develop appropriate menus and recipe selections, recognize costs incurred, and apply cost control techniques;
- Plan and direct service for buffets, food-related activities, or functions. Understand the purchasing and requisition process;
- Develop professional written and verbal communication and computational skills related specifically to hospitality;
- Demonstrate principles of effective human resource management in the supervision of employees;
- Analyze computer data for information, such as prime costs and yield management, that impacts budget and income in the hospitality industry;
- Understand and apply cost control techniques for various hospitality operations;
- Identify and interpret the skills required in supervisory positions in various segments of hospitality.

The program includes an internship in a hotel, restaurant or institutional food service facility. Placement assistance is offered by program faculty and available through cooperative agreements with hotels, food service facilities, and restaurants in the Mercer County area.

Students may study full-time or part-time. Most courses are offered both day and evenings.

Most of the credits earned in acquiring the A.A.S. degree in Hotel, Restaurant and Institution Management can be applied to the B.S. degree offered through articulation agreements with Fairleigh Dickinson University and Johnson & Wales University.

Admission to the program requires a high school diploma or its equivalent.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
HOS 100	Hospitality Success Skills (1/0)	1
HOS 101	Food Preparation I (1/4)	3
HOS 111	Culinary Math (1/0)	1
HOS 118	Sanitation and Safety in Food Service Operations (2/0)	2
HOS 120	Introduction to the Hospitality Industry (3/0)	3
MAT 120	Mathematics for Liberal Arts (3/0)	
	OR	3
MAT 125	Elementary Statistics I (3/0)	
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
HOS 102	Food Preparation II (1/4)	3
HOS 104	Hotel Management and Lodging Operations (3/0)	3
HOS 204	Hospitality Marketing (3/0)	3
– –	General Education elective IST 101 recommended.	3
THIRD SEMESTER		
ACC 111	Principles of Financial Accounting (4/0)	4
HOS 203	Hospitality Purchasing (3/0)	3
HOS 208	Hospitality Law (3/0)	3
HOS 267	Event Planning (3/0)	3
HOS 287	Hotel/Restaurant Management Internship Typically taken during the Summer session between the program's first and second years. Alternatively, may be taken in the third or fourth semester.	1
FOURTH SEMESTER		
BUS 240	Human Resource Management (3/0)	3
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
HOS 115	Food and Culture (2/2)	3
– –	Humanities general education elective	3
– –	General Education elective	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

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Illustration

ASSOCIATE IN APPLIED SCIENCE DEGREE IN VISUAL ARTS (A.A.S.)

The Illustration program prepares students for entry-level positions as illustrators or graphic designers in advertising agencies, design firms, publishing houses, production studios, or corporate environments. It also parallels the first two years of study in illustration at many undergraduate universities and art colleges.

As visual communicators, illustrators must learn the same basic design principles as graphic designers and fine artists. The design sequence of courses emphasizes the development of fine art skills as well as creative thinking for visual solutions. Skills and techniques in both traditional and computer-generated forms are introduced and emphasized. Most coursework takes place in a studio using current professional-quality equipment, artistic techniques, and technology.

An advisory commission composed of active design professionals works with the faculty to ensure that the program stays current with the changing technological advances in the illustration field.

PROGRAM OUTCOMES

- Apply computer applications to design principles;
- Illustrate and practice professional design principles;
- Recognize elements of proper design in professional-quality work;
- Design professional-quality concepts, both traditional and digital;
- Demonstrate competence in the design and production of illustrations;
- Develop and present ideas in both written and oral formats;
- Create a professional portfolio to serve in the pursuit of further education or employment.

The program may be pursued full-time or part-time. Some courses may only be offered during the day. Students are advised not to take visual art courses out of sequence.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ART 102	Basic Drawing (1/4)	3
ART 105	Two-Dimensional Design (1/4)	3
DMA 115	Vector Drawing (1/4)	3
DMA 144	Internet Tools and Techniques (1/4)	3
ENG 101	English Composition I (3/0)	3
SECOND SEMESTER		
ADV 101	Advertising Design I (1/4)	3
ADV 230	History of Graphic Design (3/0)	3
ART 104	Life Drawing (1/4)	3
ENG 102	English Composition II (3/0)	3
MAT —	Mathematics elective MAT 120 or 125 recommended. Select in consultation with an academic advisor.	3
THIRD SEMESTER		
ADV 110	Typography I: Basics of Graphic Design (1/4)	3
ADV 220	Illustration I (1/4)	3
ART 130	Painting I (1/4)	3
DMA 110	Digital Imaging (1/4) OR	3
ART 150	Printmaking I (1/4)	
DMA 250	Digital Portfolio Seminar (1/4)	3
FOURTH SEMESTER		
ADV 201	Advertising Design II (1/4)	3
ART 106	Three-Dimensional Design (1/4)	3
CMN 111	Speech: Human Communication (3/0) OR	3
CMN 112	Public Speaking (3/0)	
ART —	Art History elective Select from ART 121, 122, 124, 125; PHO 110.	3
— —	Professional elective Select from ART 141, 145, 146, 150, 230; DMA 110, 120, 135, 225; PHO 103.	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

NOTE: Students must earn a minimum grade of C in ADV 101, 110, 201, 220; ART 105; DMA 105 to graduate.

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Arts and Communication Division
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Information Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)
CERTIFICATE OF PROFICIENCY: NETWORK ENGINEERING TECHNOLOGY

Programs **INFO.TECH.AAS**
CIP 110201
INFO.TECH.NET.CERT
CIP 521299

The **Information Technology** associate degree and associated Network Engineering Technology certificate of proficiency, based on guidelines from the Association for Computing Machinery, prepare students for jobs that support computing in a networked environment. These include entry-level positions as PC technicians, network administrators, help desk specialists, technical support specialists, and customer service representatives. The A.A.S. degree may also prepare students for transfer to career-oriented B.S. degree programs in IT administration, network engineering, and computer system support.

PROGRAM OUTCOMES

- Pass industry certifications, including A+, NET+, Linux+, and Security+; ISC2 Certified in Cybersecurity Entry-Level Certification; Microsoft's MCTS, MCITP, MCSA, and MCSE; and Cisco's CCNA.
- Understand, configure, and install hardware and software, including Internet user software;
- Understand, describe, and apply network protocols and standards;
- Explain computing practices and procedures found in most organizations;
- Use printed and online technical documentation;
- Describe how the Internet works;
- Work effectively individually and in workgroups to install and implement information technology;
- Demonstrate written and oral communication skills.

Admission requires a high school diploma or its equivalent, one year of high school algebra, and computer literacy. Applicants must demonstrate competency in English composition, reading, and mathematics, as determined by placement testing. Students who are required to complete foundations courses must plan their curriculum with an academic advisor.

The A.A.S. in Information Technology was not developed as a transfer curriculum; however, students have successfully transferred to, and completed bachelor's degrees at, several technically-oriented institutions including NJIT, Fairleigh Dickinson University, DeVry University, Drexel University, and Peirce College.

The Network Engineering Technology certificate of proficiency is intended to provide the technical material covered in the A.A.S. degree. Certificate coursework may be applied toward the A.A.S. degree.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
NET 102	Introduction to PC Hardware and Software (2/3)	3
NET 104	Fundamentals of Computer Networks (2/2)	3
NET 120	Windows Desktop OS Administration (2/2)	3
IST —	Computer Concepts requirement (2/2) Select from IST 101, 102, or 105 in consultation with an academic advisor.	3
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
NET 103	IT Essentials (2/3)	3
NET 122	Windows Server OS Administration (2/2)	3
NET 130	Routing and Switching Essentials (2/2)	3
THIRD SEMESTER		
ECO 111	Macroeconomics (3/0)	3
NET 124	Windows Network Infrastructure Administration (2/2)	3
NET 212	Introduction to Linux (2/2)	3
NET 230	Scaling Networks (2/2)	
NET 244	Network Defense and Countermeasures (2/2)	3
FOURTH SEMESTER		
BUS 230	Global Environment of Business (3/0)	3
NET 126	Windows Directory Service Administration (2/2)	3
NET 242	Directory Services Infrastructure Design (2/2)	3
NET 256	Cloud Foundations (2/2)	3
— —	Social Science or Humanities general education elective	3
		60

NOTE: One or more NET courses may be substituted with acceptable IST or COS courses, in consultation with an academic advisor.

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Information Technology (cont'd)

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)
CERTIFICATE OF PROFICIENCY: NETWORK ENGINEERING TECHNOLOGY

Programs **INFO.TECH.AAS**
CIP 110201
INFO.TECH.NET.CERT
CIP 521299

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
NET 102	Introduction to PC Hardware and Software (2/3)	3
NET 103	IT Essentials (2/3)	3
NET 104	Fundamentals of Computer Networks (2/2)	3
NET 120	Windows Desktop OS Administration (2/2)	3
NET 122	Windows Server OS Administration (2/2)	3
NET 124	Windows Network Infrastructure Administration (2/2)	3
NET 130	Routing and Switching Essentials (2/2)	3
NET 230	Scaling Networks (2/2)	3
NET 244	Network Defense and Countermeasures (2/2)	3
NET —	Program elective Select from NET 126, 212, 239, 240.	3
— —	General Education elective Select in consultation with an academic advisor. Students intending to apply certificate coursework toward the A.A.S. degree should select from Social Science, Humanities, or Diversity and Global Perspective general education categories, or MAT 125.	3
		36

NOTE: One or more NET courses may be substituted with acceptable IST, CIS, COS, EET or SST courses, in consultation with an academic advisor.

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Information Technology
Cybersecurity Concentration
ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The **Cybersecurity concentration in Information Technology** associate degree prepares students for jobs protecting computer systems and networks against cyber threats such as viruses, spyware, and intrusion by hackers. These professionals design, install, and manage network control tools and other security mechanisms that protect computer systems from unauthorized access or data loss. Part prevention and part critical response, Cybersecurity supports careers such as network security specialist, security administrator, and network security support engineer.

PROGRAM OUTCOMES

- Describe the elements of information security, including possible threats and attack vectors as well as the motives, goals, and objectives of information security attacks;
- Explain what steps can be taken to secure a system, and provide secure network management and reporting;
- Secure routers and switches and their associated networks, including installing, troubleshooting, and monitoring network devices to maintain integrity, confidentiality, and availability of data and devices;
- Prevent common security threats, including implementing firewall and VPN technologies and perimeter defenses, conducting vulnerability and penetration testing, and scanning networked systems;
- Describe the security weaknesses inherent in wireless networks, and implement solutions to address them;
- Use printed and online technical documentation, and demonstrate written and oral communication skills;
- Work effectively individually and in workgroups to install and implement information security technology;
- Pass industry certifications, including ISC2 Certified in Cybersecurity Entry-Level
- Certification; CompTIA's Security+; EC-Council's CEH (Certified Ethical Hacker); and
- Cisco's CCENT, CCNA, and CCNA: Security.

Admission to the program requires a high school diploma or its equivalent, one year of high school algebra, and computer literacy. Applicants must demonstrate competency in English composition, reading, and mathematics, as determined by placement testing. Students who are required to complete foundations courses must plan their curriculum with an academic advisor.

The Cybersecurity concentration in Information Technology A.A.S. was not developed as a transfer curriculum; however, students have successfully transferred to, and completed bachelor's degrees at, several technically-oriented institutions including NJIT, Fairleigh Dickinson University, DeVry University, Drexel University, and Peirce College.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
NET 102	Introduction to PC Hardware and Software (2/3)	3
NET 104	Fundamentals of Computer Networks (2/2)	3
NET 120	Windows Desktop OS Administration (2/2)	3
IST 105	Information Security Concepts and Principles (2/2)	3
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
MAT 115	Algebra and Trigonometry I (3/0) Students intending to transfer should substitute a higher level mathematics course. Select in consultation with an academic advisor.	3
NET 103	IT Essentials (2/3)	3
NET 122	Windows Server OS Administration (2/2)	3
NET 130	Routing and Switching Essentials (2/2)	3
THIRD SEMESTER		
ECO 111	Macroeconomics (3/0)	3
NET 212	Introduction to Linux (2/2)	3
NET 230	Scaling Networks (2/2)	3
NET 240	Network Security (2/2)	3
NET 241	Cyber Security Analytics (2/2)	3
FOURTH SEMESTER		
BUS 230	Global Environment of Business (3/0)	3
IST 110	Introduction to Python (2/2)	3
NET 244	Network Defense and Countermeasures (2/2)	3
NET 245	Ethical Hacking (2/2)	3
PHI 204	Ethics (3/0)	3
		60

NOTE: One or more NET courses may be substituted with an acceptable IST or COS course, in consultation with an academic advisor.

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NOTE: All program listings are subject to periodic updates.
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IT System Analyst Associate

CERTIFICATE OF ACHIEVEMENT

This micro-credential program offers students the essentials to become an **IT System Analyst Associate**. Skills taught enable work with complex, dynamic technology to fulfill changing requirements and deliver projects on time and within budget.

PROGRAM OUTCOMES

- Explain basic concepts of project management;
- Apply PC applications (Microsoft Project Management software);
- Discuss and use system analysis tools.

Successful completion of credits from this Certificate of Achievement can be applied toward the Computer Information Systems degree program.

Admission to the program requires readiness for college-level English and Math and approval from the program coordinator. Students may receive credit for previous training in a skills area by applying for credit by examination, credit by experience, and/or transfer credit as evaluated and approved by the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
IST 109	Introduction to Programming (2/2)	3
IST 209	Project Management Concepts (2/2)	3
SECOND SEMESTER		
CIS 280	PC Applications: Project Management (2/2)	3
IST 253	Database Concepts (2/2)	3
IST 256	Systems Analysis (2/2)	3
		15

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Journalism: New Media

Programs **COMM.MEDIA.AS**
CIP 240101

ASSOCIATE IN SCIENCE DEGREE IN LIBERAL ARTS AND SCIENCES (A.S.)

The **Journalism: New Media** program prepares students for the rapidly developing field that traditional media such as photography, film, music, and spoken and written word with the combines interactive power of computer and communications technology.

Students who have traditionally pursued courses of study in journalism, public relations, advertising, and communications will find that this program substantially prepares them to enter the work force or transfer to communications programs at four-year universities. Coursework emphasizes the convergence of audio/video, graphic design, photography, and writing.

PROGRAM OUTCOMES

- Analyze and break down elements of story across multiple platforms;
- Write clear and concise stories that are suitable for multiple platforms;
- Demonstrate technical proficiency with various video and DSLR cameras;
- Demonstrate technical proficiency in a variety of multimedia software;
- Analyze, evaluate, critique, and create all forms of communication;
- Articulate and analyze complex ethical questions related to the development of new media;
- Perform a series of thinking tasks including speculation, analysis, synthesis, and abstract reasoning;
- Create a portfolio of convergence media projects suitable for securing employment in a new media workplace.

Graduates wishing to pursue studies leading to a bachelor's degree can transfer into the junior year at many institutions. TCNJ, Montclair University, Rider University, Temple University Pennsylvania State University and Rutgers University are among the institutions that have accepted Mercer graduates.

The program may be pursued part-time or full-time. Some courses are offered during the afternoon and early evening. Students are required to attend some day classes in order to complete the program. Admission requires a high school diploma or its equivalent.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 101	Mass Media	3
CMN 112	Public Speaking	
	OR	3
CMN 111	Speech and Human Communication	
ENG 101	English Composition I	3
CMN 131	Journalism I	3
PHO 103	Digital Photography I	3
SECOND SEMESTER		
CMN 102	Media Issues and Ethics	3
ENG 102	English Composition II	3
CMN 231	Journalism II	3
MAT 120	Mathematics for Liberal Arts	3
— —	Humanities general education elective	3
THIRD SEMESTER		
CMN 142	Intro to Field Production	3
CMN 157	Podcasting	3
CMN 146	Social Media Technologies	3
DMA 144	Internet Tools and Techniques	3
— —	Lab Science general education elective	3
FOURTH SEMESTER		
CMN 153	Digital Audio Production	3
PHO 251	Documentary Photography	3
— —	Historical Perspective general education elective	3
— —	Science general education elective	3
— —	Social Science or Humanities elective	3
		60

Arts and Communication Division

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Legal Studies and Professional Ethics

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **LGL.STUD.AAS**
CIP 220302

The **Legal Studies and Professional Ethics** degree program provides an initial foundation in legal studies and professional ethics that includes general education, legal specialty and survey courses designed to prepare students for entry-level careers. Students gain valuable skills and knowledge while exploring real world examples of legal, ethical, and practical applications.

This degree program is approved by the American Bar Association (ABA).

PROGRAM OUTCOMES

- Understand the roles and responsibilities of legal professionals in a variety of legal employment settings;
- Identify and implement standards of legal ethics and professionalism;
- Demonstrate practical skills in a range of substantive legal areas;
- Engage in effective written and verbal professional communication;
- Develop appropriate methods for embarking on a legal career.

As part of this degree program, each student must complete 18 credits of designated legal specialty courses which include 9 credits (three courses) of core legal specialty courses which must be attained through synchronous instruction, with live remote instruction offered for all applicable courses. The remaining courses are offered online, on campus, daytime and/or evening.

Legal specialty courses are designed to provide students with instruction in practical skills for entry-level positions.

The following legal specialty courses do not generally qualify for transfer into the degree program: *LEG 129, LEG 130, LEG 132, LEG 133, LEG 143, LEG 255, and LEG 258*. Students may transfer other non-legal specialty courses within the degree requirements, pending review and approval.

In the United States, paralegals may not provide legal services directly to the public or engage in the practice of law, except as permitted by law. Courses in the program do not include training for jurisdiction-specific legal instruction and do not qualify as the instruction of law nor do they prepare students to practice law or to represent clients. In New Jersey, only an attorney who is admitted to the state bar may practice law.

This program is designed for students seeking a flexible and affordable path to earn an ABA-approved degree.

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Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	3
ENG 101	English Composition I (3/0)	3
LEG 129	Role of the Paralegal (3/0)	3
LEG 130	Civil Litigation I (3/0)	3
MAT 120	Mathematics for Liberal Arts (3/0) Consult intended transfer institution(s) regarding their mathematics requirements and academic advisor for acceptable alternatives.	3
SECOND SEMESTER		
BUS 107	Business Law I (3/0)	3
ENG 102	English Composition II (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	3
LEG 132	Civil Litigation II (3/0)	3
LEG 133	Legal Research and Writing (3/0)	3
THIRD SEMESTER		
BUS 108	Legal Environment of Business (3/0)	3
CRJ 202	Criminal Law (3/0)	3
LEG 255	Ethics and Professionalism (3/0)	3
LEG 256	Career Development for Law and Justice Professionals (1/0)	1
LEG 258	Research and Project Management: Legal, Business, and Justice Applications (3/0)	3
— —	Science elective BIO 114 is the recommended elective for students intending to transfer to a four-year institution. Those planning to transfer should determine if a lab science is required before choosing the Science elective.	3
FOURTH SEMESTER		
CMN 112	Public Speaking (3/0) OR	3
CMN 111	Speech: Human Communication (3/0)	
— —	Program elective Select from BUS 101, 102, 111, 230, 240; CRJ 101, 102, 103, 104, 105, 206, 211, 212; LEG 143.	3
— —	Program elective Select from BUS 101, 102, 111, 230, 240; CRJ 101, 102, 103, 104, 105, 206, 211, 212; LEG 143.	3
— —	Diversity and Global Perspective general education elective	3
— —	Social Science or Humanities general education elective	3
		60

NOTE: All students must complete 18 credits of required legal specialty courses LEG 129, 130, 132, 133, 255, and 258 -- none of which may be transferred from other institutions or (except for 255 and 258) completed through MercerOnline.

NOTE: Electives should be selected in consultation with the program coordinator in order to assure maximum transfer of credits. Students require a minimum of 18 hours of ABA recognized general education electives.

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Liberal Arts

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)

Programs **LA.AA**
CIP 240101

The **Liberal Arts** program offers a variety of courses that prepare students to transfer into the junior year at four-year colleges and universities in such fields as English, history, humanities, journalism, world languages, pre-law, literature, psychology, sociology, political science, anthropology, philosophy, and education. Liberal Arts can be a valuable, flexible path allowing students to explore many subject areas before choosing a more specific discipline upon transfer.

The Liberal Arts program is fundamentally cross-disciplinary; this broad perspective provides students with a strong foundation in humanities, social science, natural science, and mathematics. Using a variety of cross-disciplinary approaches, students work together to explore what we share and how we differ, developing the skills needed for engaged, responsible, global citizenship.

An associate degree in Liberal Arts is most effective as a step toward transfer and further academic work. Students enrolled in the Liberal Arts program who intend to transfer to fouryear colleges or universities are strongly advised to discuss their general education electives with a faculty advisor.

Almost all baccalaureate institutions prefer coursework for a student's major field to be completed at that institution. Therefore, it is better for students to fulfill the general education requirements that make up the core of Liberal Arts at Mercer, working with faculty advisors to select courses with an eye toward full transferability. All students should determine the requirements of the transfer institutions they would like to attend and consult with Transfer Services about available articulation agreements and transfer options.

Liberal Arts majors have transferred to Rider University, The College of New Jersey, Rutgers University, Temple University, and many other institutions.

The program may be pursued part-time or full-time and may be completed by daytime or evening attendance, or fully online.

PROGRAM OUTCOMES

- Understand the vocabulary, methods, and the major concepts present in the humanities, the social sciences, and the natural sciences;
- Articulate complex ideas clearly and effectively, both verbally and in writing;
- Perform a series of thinking tasks including quantitative and abstract reasoning such as speculation, analysis, and synthesis;
- Utilize research materials and methodologies;
- Speak, write, read, and comprehend a world language commensurate with the level of study.

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Liberal Arts (cont'd)

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
LAS 101	Introduction to Liberal Arts Studies (1/0) Take either LAS 101 or 201 – not both. Students who need an additional credit for full-time status while taking CSW 100 should take LAS 101 the same semester. Students who need an additional credit in order to graduate should take LAS 201 in their last year; students who will achieve 60 credits without LAS are exempt from the LAS requirement.	0 or 1
MAT 125	Elementary Statistics I (3/0)	3
HIS —	Historical Perspective general education elective Select from HIS 101, 102, 112, 113.	3
— —	Social Science general education elective Recommended: PSY 101, SOC 101 or 107.	3
SECOND SEMESTER		
CMN 111	Speech: Human Communication (3/0)	3
	OR	3
CMN 112	Public Speaking (3/0)	3
ENG 102	English Composition II (3/0)	3
HIS —	History elective	3
MAT —	Mathematics elective MAT 126 recommended. Acceptable alternatives include MAT 120 based on transfer needs. Consult academic advisor and intended transfer institution(s) regarding their mathematics requirements.	3
— —	Social Science general education elective Recommended: PSY 101, SOC 101 or 107.	3
THIRD SEMESTER		
ENG —	Literature elective Select any 200-level ENG literature course (not limited to general education listings).	3
— —	Lab Science elective Recommended: 3-credit science for Liberal Arts – BIO 113, CHE 106, OHT 101, or PHY 111.	3
— —	Social Science elective Select any 200-level Social Science course (not limited to general education listings). No more than six credits may be taken in any one Social Science discipline.	3
— —	World Language elective Take one language in a progressive sequence; start at 101 only if this is a new language for you. Consult academic advisor regarding the transferability of language courses. If language courses are CLEPed, you must meet with a Liberal Arts faculty advisor and the World Languages coordinator.	3
— —	Diversity and Global Perspective general education elective	3

Curriculum

FOURTH SEMESTER		
LAS 201	Liberal Arts Special Topics (1/0) Take either LAS 101 or 201 – not both. Students who need an additional credit for full-time status while taking CSW 100 should take LAS 101 the same semester. Students who need an additional credit in order to graduate should take LAS 201 in their last year; students who will achieve 60 credits without LAS are exempt from the LAS requirement.	0 or 1
PHI —	Philosophy elective Select any 200-level Philosophy course.	3
— —	Social Science or Humanities elective Any Social Science, ENG, HIS, PHI, or REL course qualifies.	3
— —	World Language elective Take one language in a progressive sequence; start at 101 only if this is a new language for you. Consult academic advisor regarding the transferability of language courses. If language courses are CLEPed, you must meet with a Liberal Arts faculty advisor and the World Languages coordinator.	3
— —	Program elective Any 101-level or higher course required in an A.A., A.F.A., or A.S. degree program. List available from Liberal Arts program coordinator.	3
— —	Program elective Any 101-level or higher course required in an A.A., A.F.A., or A.S. degree program. List available from Liberal Arts program coordinator.	3
		60

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Liberal Arts
Global Studies Concentration

Programs **LA.GLOB.AA**
CIP 240101

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)

The **Liberal Arts concentration in Global Studies** provides students interested in a career in such fields as international relations, global business, law, diplomacy, international aid work, and other public service by providing a beginning understanding of the issues affecting international decision-making today. The objectives and overall requirements of the Global Studies concentration are the same as those for a more general program possible; however, within each requirement, the choice of electives affords students an opportunity to approach disciplinary work from a global perspective.

Students interested in transferring to The College of New Jersey's International Studies program should work closely with their Faculty Advisors from the beginning to choose courses that fit the articulation agreement between MCCC's Global Studies concentration and TCNJ's International Studies. Faculty Advisors can also aid in planning transfer to related programs at Montclair State, Rowan, and RutgersCamden as well as programs outside New Jersey.

Prospective students are encouraged to compare the curriculum for the Global Studies concentration with that of the standard MCCC Liberal Arts program, as well as to read the Mercer/Rider guaranteed transfer articulation agreement posted on the MCCC Transfer Services website.

For students not transferring to Rider, the Global Studies concentration can lead to similar study elsewhere or transfer to four-year baccalaureate programs in which general Liberal Arts graduates would enroll.

PROGRAM OUTCOMES

- Understand the vocabulary, methods, and the major concepts present in the humanities, the social sciences, and the natural sciences;
- Articulate complex ideas clearly and effectively, both in speech and in writing;
- Perform a series of thinking tasks including quantitative and abstract reasoning such as speculation, analysis, and synthesis;
- Utilize research materials and methodologies;
- Speak, write, read, and comprehend a world language commensurate with the level of study.

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Liberal Arts (cont'd)
Global Studies Concentration
ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ANT 101	Anthropology (3/0)	3
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
HIS 112	World History to 1500 (3/0)	3
LAS 101	Introduction to Liberal Arts Studies (1/0) Take either LAS 101 or 201 – not both. Students who need an additional credit for full-time status while taking CSW 100 should take LAS 101 the same semester. Students who need an additional credit in order to graduate should take LAS 201 in their last year; students who will achieve 60 credits without LAS are exempt from the LAS requirement.	0 or 1
MAT 125	Elementary Statistics I (3/0)	3
SECOND SEMESTER		
CMN 111	Speech: Human Communication (3/0) OR	3
CMN 112	Public Speaking (3/0)	
ENG 102	English Composition II (3/0)	3
HIS 113	World History Since 1500 (3/0)	3
SOC 101	Introduction to Sociology (3/0)	3
MAT —	Mathematics elective Select from MAT 126 or MAT 146 depending on transfer goals; consult Global Studies faculty advisor about eligibility for MAT 146. Students taking MAT 146 are exempt from LAS 101 or 201.	3 or 4
THIRD SEMESTER		
ECO —	Economics elective (3/0) Select from ECO 103 or ECO 111 depending on transfer goals.	3
ENG —	Literature elective Select from ENG 203, 204, 232, 234.	3
PHI —	200-level Philosophy elective (3/0) PHI 210 preferred; any 200-level course is acceptable.	3
— —	Lab Science general education elective Recommended: 3-credit science for Liberal Arts – BIO 113, CHE 106, OHT 101, PHY 111.	3
— —	World Language elective Take one language in a progressive sequence; start at 101 only if this is a new language for you. Consult Global Studies faculty advisor regarding the transferability of language courses. If language courses are CLEPed, you must meet with the Global Studies faculty advisor and the World Languages coordinator.	3

Curriculum

Code	Course (lecture/lab hours)	Credits
FOURTH SEMESTER		
BUS 230	Global Environment of Business (3/0)	3
LAS 201	Liberal Arts Special Topics (1/0) Take either LAS 101 or 201 – not both. Students who need an additional credit for full-time status while taking CSW 100 should take LAS 101 the same semester. Students who need an additional credit in order to graduate should take LAS 201 in their last year; students who will achieve 60 credits without LAS are exempt from the LAS requirement.	0 or 1
POL 201	International Relations (3/0)	3
— —	Humanities or Social Science elective Select from ECO 112; ENG 203, 204, 214, 232, 234; HIS 213, 215, 231, 232, 233; REL 102.	3
— —	Program elective (3/0) Select any course required for an A.A., A.S., or A.F.A. degree. Consult with Global Studies advisor based on transfer goals.	3
— —	World Language elective Take one language in a progressive sequence; start at 101 only if this is a new language for you. Consult Global Studies faculty advisor regarding the transferability of language courses. If language courses are CLEPed, you must meet with the Global Studies faculty advisor and the World Languages coordinator.	3
		60

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Manufacturing Engineering Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **MANUF.TECH.AMT.AAS**
CIP 143601

The **Manufacturing Engineering Tecnnology (MET)** degree program prepares students for entry level positions in the modern manufacturing sector. Typical aspects of this career may involve product design, design for manufacturing (DFM) decision making, tooling and fixture designs for welding and assembly, computer numerical control (CNC) programming and Computer Aided Manufacturing (CAM) programming.

The program equips students with application skills in CNC, CAM, and Programmable Logic Controllers (PLC) programming along with basic engineering areas of pneumatics, hydraulics, heat transfer, materials science, statics/dynamics, mechanical shock and vibration, engineering economics, and OSHA 10 safety.

MET graduates are attractive to modern and advanced manufacturing employers who are seeking team oriented, well-rounded candidates who possess a wide range of 21st century knowledge and skills in a range of areas within the manufacturing sector. Students in this program are well prepared to take the Society of Manufacturing Engineers (SME) certification exams for the SME CMfgA (Associate level) and the SME CMfgT (Technologist). Once the employment requirement is met, graduates are on their way to earning the SME CMfgE (Engineer). Graduates of the program are encouraged to consider also completing a Bachelor of Science degree in Manufacturing Engineering Technology, Mechanical Engineering Technology, Mechatronics, Advanced Manufacturing Technology or many other STEM degrees.

PROGRAM OUTCOMES

- Pursue SME. OSHA safety, and American Welding Society (D1.1 or higher) certifications
- Read engineering drawings/prints and schematics
- Utilize 3D solid modeling CAD/CAM programs
- Design products utilizing Design for Manufacture (DFM)
- Use instruments such as micrometers, calipers, and a CMM (coordinate measuring machine)
- Set up, operate, and program manual and CNC milling machines and lathes
- Set up and operate MIG, TIG welding equipment
- Design tooling and fixtures to manufacture, assemble and weld products precisely
- Demonstrate excellent judgement in the economics of manufacturing
- Make calculations and judgements related to all aspects of a Manufacturing Engineering position.

Admission to the program requires a high school diploma or its equivalent with one year of algebra or applied mathematics

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
MET 101	Basic Machining/Welding/3D CAD	3
DRA 190	Introduction to CAD	2
ENG 101	English Comp I	3
MAT 115	Algebra & Trig I	3
— —	General Education elective	3
SECOND SEMESTER		
MET 102	MFG Tech and MGMT.	3
MET 103	Engr Princ for MFG	2
CIV 106	Mechanics	3
EET 130	Fund of Electronics	3
MAT 125	Elem Statistics	3
MET 110	Metal Forming and Finishing	3
THIRD SEMESTER		
MET 122	Metrology and Quality CTRL	3
MET 220	Matl and MFG Processes	3
MET 231	CNC Machining	3
EET 140	Electronic Constr	2
ENG 102	English Comp II	3
FOURTH SEMESTER		
MET 232	Joining/Fastening/Welding	3
MET 291	MFG Engr Internship	3
DRA 218	3-D Modeling / 3-D Printing	3
ECO 103	Basic Economics	3
ELECT	Humanities	3-4
		60

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Manufacturing Engineering Technology

CERTIFICATE OF PROFICIENCY

Programs **MANUF.TECH.AMT.CERT**
CIP 143601

The **Advanced Manufacturing Technology** program is designed to prepare students for the modern manufacturing environment. This certificate of proficiency is attractive to employers who implement team-oriented design, production, quality, and maintenance systems within the manufacturing environment.

American manufacturers are becoming increasingly dependent upon the use of high-tech equipment that involves multiple, integrated systems. It is crucial that these companies be able to recruit and employ individuals who know how to operate, troubleshoot, and maintain it.

The certificate program prepares students for apprentice/entry-level positions in shops and manufacturing facilities not only in the local area but almost anywhere in the country. Typical tasks include setting up and operating equipment such as engine or turret lathes, milling machines, and power presses. More advanced tasks may involve operating computer-controlled manufacturing equipment (CNC) as well as programmable logic controllers (PLCs) or robots for assembly lines.

Admission to the program requires a high school diploma or its equivalent with one year of algebra or applied mathematics.

PROGRAM OUTCOMES

- Read prints and schematics;
- Use instruments such as micrometers, calipers, and scales;
- Set up and operate a milling machine;
- Set up and operate a lathe;
- Populate and repair printed circuit boards;
- Maintain a safe and organized work space;
- Make certain mathematical calculations related to shop work;
- Succeed in future courses, such as those involving PLC and CNC systems.

Curriculum

Code	Course (lecture/lab hours)	Credits
AMT 101	Machine Shop Techniques I (2/3)	3
DRA 190	Introduction to Computer-Aided Drafting (1/2)	2
ENG 101	English Composition I (3/0)	3
MAT 115	Algebra and Trigonometry I (3/0)	3
— —	Science OR Technology general education elective	3
AMT 102	Machine Shop Analysis Methods (3/0)	3
AMT 103	Blueprint Reading Basics (2/0)	2
AMT 110	Machine Shop Techniques II (2/3)	3
AMT 231	Introduction to Computer Numerical Controlled (CNC) Machines (2/3)	3
AMT 232	Advanced Computer Numerical Controlled (CNC) Machines (2/3)	3
AMT 290	Advanced Manufacturing Technology Internship	2
		30

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Manufacturing Technician
MICRO-CREDENTIAL

Manufacturing Technicians/Technologists assist in the production process by operating machinery, assembling products, and performing quality checks. Under supervision they assist with troubleshooting and maintaining a safe work environment. This micro-credential serves to provide students with the necessary mechanical and safety background to properly execute such positions.

Successful completion of credits from this micro credential may be applied towards Mercer County Community College's Advance Manufacturing Technology certificate and/or A.A.S programs.

Curriculum

Code	Course (lecture/lab hours)	Credits
DRA 190	Principles of Financial Accounting (4/0)	2
AMT 103	Principles of Managerial Accounting (4/0)	2
AMT 101	Intermediate Accounting I (3/1)	3
DRA 218	Intermediate Accounting II (3/1)	3
AMT 110	Federal Income Taxation (3/0)	3
		33-34

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Mathematics

Programs **MATH.AS**
CIP 240101

ASSOCIATE IN SCIENCE DEGREE IN LIBERAL ARTS AND SCIENCES (A.S.)

The **Mathematics** option of the Liberal Arts and Sciences program prepares graduates for transfer into the junior year of a baccalaureate degree program in mathematics or a related area.

PROGRAM OUTCOMES

- Apply a range of mathematical skills spanning fundamental concepts to more advanced mathematical concepts;
- Apply quantitative knowledge, including the required technological skills and theoretical knowledge;
- Demonstrate critical thinking skills to solve real world problems using mathematical modeling;
- Communicate methods of solutions and results to problems using mathematical language and notation.

Admission to the program requires a high school diploma or its equivalent with one year of laboratory science (biology, chemistry, physics) and four years of mathematics including algebra I and II, plane geometry, and algebra with trigonometry; two years of a world language are recommended. Students who have not taken these courses or who have not completed them within the last five years may take appropriate preparatory courses at the college.

This program may be pursued part-time or full-time, and may be completed by daytime or evening attendance. It is recommended that students plan coursework and electives carefully and consult an academic advisor regularly.

Mathematics students have successfully transferred to colleges and universities throughout New Jersey and across the nation.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0)	4
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
— —	Lab Science general education elective PHY 115 and 215 recommended. BIO 101 and 102 or CHE 101 and 102 may be selected if they serve a transfer need.	4
— —	General Education elective For the program's three General Education electives, select either [A] two semesters of a world language and one course from the Social Science general education category; or [B] two courses from the Social Science general education category and one from the Humanities general education category (PHI 113 recommended).	3
SECOND SEMESTER		
MAT 152	Calculus II for the Mathematical and Physical Sciences (4/0)	4
ENG 102	English Composition II (3/0)	3
— —	Lab Science general education elective PHY 115 and 215 recommended. BIO 101 and 102 or CHE 101 and 102 may be selected if they serve a transfer need.	4
— —	Program elective Based on student's transfer needs and interests, for Program electives select either [A] three 4-credit courses; or [B] four 3-credit courses.	4 or 3
THIRD SEMESTER		
MAT 251	Calculus III (4/0)	3
CMN 111	Speech: Human Communication (3/0)	3
	OR	3
CMN 112	Public Speaking (3/0)	3
— —	General Education elective For the program's three General Education electives, select either [A] two semesters of a world language and one course from the Social Science general education category; or [B] two courses from the Social Science general education category and one from the Humanities general education category (PHI 113 recommended).	3
— —	Network Security (2/2) Based on student's transfer needs and interests, for Program electives select either [A] three 4-credit courses; or [B] four 3-credit courses.	3
— —	Cyber Security Analytics (2/2) Required only if Program elective option [B] applied in Semesters 2, 3, and 4.	3
FOURTH SEMESTER		
BUS 230	Global Environment of Business (3/0)	3
IST 110	Introduction to Python (2/2)	3
NET 244	Network Defense and Countermeasures (2/2)	3
NET 245	Ethical Hacking (2/2)	3
PHI 204	Ethics (3/0)	3
		60

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NOTE: All program listings are subject to periodic updates.
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Medical Laboratory Assistant

CERTIFICATE OF PROFICIENCY

The **Medical Laboratory Assistant** certificate program prepares students to function as a medical laboratory assistant (MLA) within a clinical laboratory setting. In some settings, a MLA may hold titles such as phlebotomist, clinical laboratory assistant, or specimen accessioner/processor. These entry-level positions include employment in medical centers/hospitals, outpatient laboratories, research facilities, and doctor offices.

Students are trained in all aspects of the clinical laboratory including the skill of phlebotomy, waived testing, specimen processing, data entry, laboratory safety, result retrieval, quality control, laboratory information systems, basic microbiology, and transfusion support services.

This program also provides opportunities for graduates to career ladder into Mercer County Community College's Medical Laboratory Technology Associate degree program and/or later pursue a medical laboratory scientist degree program at a four-year institution.

PROGRAM OUTCOMES

- Apply governmental standards and compliance within the laboratory setting;
- Demonstrate professional and ethical behaviors along with interpersonal skills when communicating with patients and members of the healthcare team in the workplace;
- Perform phlebotomy and display safety practices for infection control according to industry standards;
- Implement quality assurance and quality control principles to specimen transport, specimen processing, and laboratory testing;
- Prepare reagents, standards, quality control material and human blood / body fluid specimens for analysis according to industry standards;
- Perform specimen testing using proper procedures, equipment, and techniques;
- Apply relevant methodologies and techniques including problem solving and troubleshooting for specimen processing and testing;
- Use a computer to enter and record data into a laboratory information system (LIS).

Graduates are eligible to apply for a national certification exam for Phlebotomist / Medical Laboratory Assistant.

Curriculum

Code	Course (lecture/lab hours)	Credits
BIO 103	Anatomy and Physiology I (3/3)	
	OR	4
BIO 106	Public Speaking (3/0)	
ENG 101	English Composition I (3/0)	3
HPE 113	Medical Terminology (3/0)	3
PBT 101	Phlebotomy for Healthcare Professionals (3/3)	4
PBT 102	Phlebotomy Practicum	2
PSY 101	Introduction to Psychology (1/3)	2
MAT 140	Applied College Algebra	4
	OR	
MAT 146	Pre-Calculus	4
	OR	
MAT 200	Statistics for Social and Health Science	3
MLA 110	Medical Laboratory Assisting	5
MLA 102	Medical Laboratory Assistant Practicum	3
		30

NOTE: Students must earn a minimum grade of C in prerequisite courses.

NOTE: Students must earn a minimum grade of C+ for the program's core courses (PBT101 & MLA 110).

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Medical Laboratory Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **MED.LAB.B.AAS**
CIP 511004

Medical laboratory technology is a field of professional study involving students in the exciting and challenging world of science and medicine. Laboratory professionals perform diagnostic laboratory tests on medical specimens which provide information used to diagnose health and disease.

Combining courses in general education and medical laboratory science with a clinical practice conducted at an approved area healthcare facility, the **Medical Laboratory Technology** program prepares students for careers as medical laboratory technicians. It is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 N. River Road, Suite 720, Rosemont IL 60018; 773-714-8880; www.naacls.org.

A graduate of the program is eligible for certification by successfully completing the examination given by the American Society for Clinical Pathologists. Graduates are eligible for immediate employment in hospital labs, physician offices, public health labs, as well as pharmaceutical and research companies.

PROGRAM OUTCOMES

- Integrate knowledge learned and experienced in the disciplines of general education, mathematics, science, and medical laboratory science;
- Achieve entry-level career competencies of a medical laboratory technician by testing biological samples using current technology to generate accurate, quality-assured laboratory results used for health and disease evaluation;
- Utilize critical-thinking skills to assess and problem- solve laboratory data for patient diagnoses;
- Maintain familiarity with the profession's code of ethics and consistently act within those standards during interactions with fellow classmates and working professionals in the clinical setting;
- Describe the importance of continuing education in lifelong learning and in obtaining and upholding professional credentialing;
- Demonstrate academic and technical competence in the professional courses of the curriculum through college and applied clinical education experiences;
- Take the national ASCP certification exam.

Admission to the Medical Laboratory Technology program requires a high school diploma or its equivalent, satisfactory performance on the MCCC college skills placement test, and completion of any required academic foundation courses.

Applicants are encouraged to consult their academic advisor. For further information, contact the MLT program coordinator or visit the program website.

B.S. (Bachelor of Science) Degree Completion

In addition to acquiring certification, successful graduates of the Medical Laboratory Technology A.A.S. program can apply to bachelor's degree completion programs through established articulation agreements arranged with MCCC and a variety of four-year colleges.

Students follow the standard MLT curriculum (at right), with course substitutions and additional coursework as follows:

* FIRST SEMESTER: select MAT 146 as the Mathematics elective

* SECOND SEMESTER: select CHE 101 instead of 107

* additional science courses: BIO 101, 102, 208; CHE 102

* additional general education courses: HIS 112, 113; MAT 200; world language levels I and II

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Medical Laboratory Technology (cont'd)

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Curriculum

Code	Course (lecture/lab hours)	Credits
PRE-PROFESSIONAL PHASE		
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
BIO 103	Anatomy and Physiology I (3/3) BIO 101-102 may be substituted for BIO 103-104. Consult academic advisor for details.	4
PSY 101	Intro to Psych (3/0) PSY 101 is the preferred Social Science elective. Consult with academic advisor for details.	4
MAT —	Math elective (3/0) Select from: MAT 135, 140, 146, or 200.	4
CSW 100	College Success & Wellness (2/0)	2
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
BIO 104	Anatomy and Physiology II (3/3) BIO 101-102 may be substituted for BIO 103-104. Consult academic advisor for details.	4
CHE 101	General Chemistry I (3/3)	
	OR	4
CHE 107	General and Physiological Chemistry (3/2)	
MLT 112*	Introduction to Medical Laboratory Technology	3
PROFESSIONAL PHASE		
SUMMER UA		
BIO 201	Microbiology (3/3)	4
SUMMER UB		
MLT 200	Clinical Chemistry (3/2)	4
FALL 7A		
MLT 207	Clinical Immunohematology (3/3)	4
FALL 7B		
MLT 212	Clinical Hematology (3/3)	4
SPRING		
MLT 214	Clinical Microbiology (5/3)	6
MLT 216	Clinical Competency	1
SUMMER		
MLT 217	Clinical Practicum I	1
MLT 218	Clinical Practicum II	3
MLT 219	Clinical Practicum III	3
MLT 220	Clinical Practicum IV	3
		63-65

*MLA 110 will be accepted in place of MLT 112

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Medical Office Assistant

CERTIFICATE OF PROFICIENCY

The Certificate of Proficiency in **Medical Office Assistant** prepares students to enter or transition into health professions careers including but not limited to medical assistant (depends on the setting), medical biller, medical coder, and medical office assistant. Graduates are prepared for employment in medical settings of all sizes to help others and support the distribution of health information, and to pursue further education.

This two-semester (or less) credit program is ideal for those seeking to immediately enter the healthcare field. Students who complete this certificate can consider taking the Certified Medical Administrative Assistant (CMAA) and Certified Professional Coder (CPC) exams.

PROGRAM OUTCOMES

Successful graduates of this program will be able to understand and apply concepts learned in:

- Anatomy and physiology
- Oral and written communication
- Microsoft applications
- Medical terminology
- Medical ethics
- Medical office procedures
- Medical billing and coding

Every effort is made to keep current with the constant changes in government and insurance regulations in order to ensure that program content reflects up-to-date requirements and procedures.

Paid internships may be available exclusively for Medical Office Assistant majors. Depending on the healthcare employer, future tuition toward degrees may be partially reimbursed. Medical Office Assistant students who meet One-Stop Career Center qualifications may receive up to $4000 in financial support toward completing this certificate.

Admission to the program requires a high school diploma or its equivalent. MCCC may accept and award some credits earned from other accredited schools and the MCCC Center for Continuing Studies toward this credit certificate. At least 15 credits must be completed at MCCC. Visit the program website for details.

Curriculum

Code	Course (lecture/lab hours)	Credits
BIO 103	Anatomy and Physiology I (3/3)	4
CSH 100	College Success for Health Professions (1/1) Some exemptions apply. Consult program coordinator for details.	2
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
PSY 101	Introduction to Psychology (3/0)	3
CMN 111	Speech: Human Communication (3/0)	3
HPE 113	Medical Terminology (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	3
MOA 101	Medical Ethics and Office Procedures (3/0) Offered every Fall and Spring on both campuses. Credits for MOA 101 and 103 can alternatively be earned through Center for Continuing Studies classes. Consult program coordinator for details.	3
MOA 103	Medical Billing and Coding Procedures (3/0) Offered every Fall and Spring on both campuses. Credits for MOA 101 and 103 can alternatively be earned through Center for Continuing Studies classes. Consult program coordinator for details.	3
		30

NOTE: Students must earn a minimum grade of C in HPE 113 and all MOA courses

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Science, Health Professions, and Nursing Division

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Microcomputer Applications
CERTIFICATE OF PROFICIENCY

The **Microcomputer Applications** certificate program prepares students for intelligent and efficient use of personal computer systems and commercial software for business applications in an office environment.

The program is primarily designed for upgrading the skills of persons employed in clerical, technical or managerial positions. It also provides skills which are helpful in securing entrylevel employment in these fields

PROGRAM OUTCOMES

- Demonstrate knowledge of PC operating systems, networking essentials, and applications software;
- Demonstrate mastery of one major business application product for word processing, database, spreadsheet, and presentation applications;
- Apply PC skills together with other technical/ business knowledge toward advancement or employment in a technology-intensive office environment.

Admission to the program requires a high school diploma or its equivalent.

NOTE: Because of the focus on PC applications in this program, students must possess keyboarding skills. See OST 111.

NOTE: Computer application courses are mapped to Microsoft certification exams.

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
IST 101	Computer Concepts with Applications (2/2) May be substituted with another Technology general education elective if student shows competency in Microsoft Office applications.	3
OST 219	Word Processing Concepts and Applications (2/2)	3
NET 102	Introduction to PC Hardware and Software (2/2) Students may sit for the A+ certification exam after completion of NET 102 and 103.	3
MAT —	Mathematics elective Select in consultation with an academic advisor; MAT 140 recommended. Students intending to transfer to a baccalaureate program should consider a higher-level mathematics course.	3-4
CIS 173	PC Applications: Database (2/2)	3
CIS 175	PC Applications: Spreadsheets (2/2)	3
CIS 182	PC Applications: Presentations (2/2)	3
NET 104	Fundamentals of Computer Networks (2/2)	3
NET 120	Windows Desktop Operating System Administration (2/2)	3
— —	Technical elective Select from DMA 145, IST 140, NET 103, OST 223.	3
		33-34

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Mobile and Web Computing
CERTIFICATE OF PROFICIENCY

The **Mobile and Web Computing** certificate program teaches the skills needed to enter the mobile and web computing fields and prepares students for entry-level positions such as computer programmer, mobile app developer, and web application developer.

PROGRAM OUTCOMES

- Analyze computer application requirements;
- Design, write, test, and debug mobile and web applications.

All courses in this program completed with a grade of C or better may be applied toward the Information Technology A.A.S., Computer Information Systems A.S., or Computer Science A.S. degree programs.

Admission requires a high school diploma or its equivalent. Prior programming experience is helpful, but not necessary. Some required courses may be offered only during the evening, and some may be offered only in alternate semesters. It is essential that students plan ahead in consultation with the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
COS 102	Computer Science I – Algorithms and Programming (3/2)	4
ENG 101	English Composition I (3/0)	3
IST 108	Introduction to Programming with Mobile Application Development (3/2)	4
IST 144	Website Development (3/2)	4
IST 244	Web Application Development (3/2)	4
IST 218	iOS Application Development (3/2)	4
IST 208	Android Application Development (3/2)	
	OR	4
COS 210	Computer Science Data Structures (3/2)	
— —	Program elective In consultation with an academic advisor, select from the course categories of COS, DMA, GAM, IST, or NET.	3-4
		30-31

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Music

ASSOCIATE IN SCIENCE DEGREE IN LIBERAL ARTS AND SCIENCES (A.S.)

The **Music** A.S. option of the Performing Arts program provides the prospective graduate with the theoretical and practical training necessary to transfer at the junior level in most baccalaureate music programs by way of a comprehensive curriculum that encompasses the same rigor and scope as that encountered in the first two years of a typical four-year program.

Core curriculum requirements include four semesters of Music Theory studies encompassing ear training and sight singing; two semesters of Music History; four semesters of piano training; four semesters of one-on-one study of a primary instrument (or voice) with a highly trained and well credentialed private instructor; four semesters of participation in one or more of the program's performing ensembles.

Additional course offerings in jazz history, jazz improvisation, music business, and digital recording technology further prepare many music majors for a wider variety of transfer options and eventual career choices.

PROGRAM OUTCOMES

- Demonstrate a professional level of fluency in both the reading and writing of musical notation;
- Demonstrate a working knowledge of the theoretical principles that underlie all the primary genres of music of Western culture, including scale and chord construction; the tonal system of keys and chord relationships; harmonic analysis; figured bass; the principles and procedures of four-part writing; and modulation;
- Analyze excerpts of musical compositions, working from a printed score, on the levels of harmony, rhythm, melodic contour, phrase structure, and large scale formal structure;
- Notate short melodic fragments of two to four measures in length upon hearing them performed;
- Sing at sight melodies of intermediate difficulty in both major and minor keys;
- Identify and distinguish the major periods in the history of Western music from the Middle Ages into the 21st century and cite the primary composers whose works exemplify the stylistic trends of each period;
- Demonstrate a level of proficiency at the piano keyboard suitable for teaching, arranging, composing, and analyzing music;
- Cultivate and demonstrate a level of proficiency on a chosen primary instrument (or voice) suitable for transfer to a baccalaureate music program;
- Apply his/her instrumental or vocal skill in the context of ensemble performance.

Admission to the Music program requires a high school diploma (or equivalent), at least a rudimentary proficiency on a musical instrument, and some degree of aural acuity. Graduates of the program typically transfer successfully to such highly regarded institutions as Rutgers University, New York University, The College of New Jersey, Rowan University, Montclair State University, and William Paterson University.

The Music A.S. degree may be pursued on a full-time or part-time basis, with most course offerings available during daytime hours only.

Arts and Communication Division

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Music (cont'd)

ASSOCIATE IN SCIENCE DEGREE IN LIBERAL ARTS AND SCIENCES (A.S.)

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
MAT 120	Mathematics for Liberal Arts (3/0)	
	OR	3
MAT 125	Elementary Statistics I (3/0)	
MUS 103	Introduction to Music (3/0)	3
MUS 105	Fundamentals of Music Theory (2/2)	3
MUS 121	Piano Class I (0/2)	1
MUS 109	Applied Music I (.5/1)	1
MUS —	Performing Ensemble I (1/2) Chamber Ensemble (one semester minimum), Chorus, Jazz Band, or Orchestra	1
SECOND SEMESTER		
CMN 111	Speech: Human Communication (3/0)	
	OR	
CMN 112	Public Speaking (3/0)	3
	OR	
— —	General Education elective Select from ASL 101, EDU 109, FRE 101, GER 101, ITA 101, LAT 101, MUS 155, MUS 156, PSY 101, PSY 206, SOC 101, SPA 101.	
ENG 102	English Composition II (3/0)	3
MUS 127	Music Theory I (2/2)	3
MUS 167	Musicianship I (0/2)	1
MUS 122	Piano Class II (0/2)	1
MUS 110	Applied Music II (.5/1)	1
MUS —	Performing Ensemble II (1/2) Chamber Ensemble (one semester minimum), Chorus, Jazz Band, or Orchestra	1
— —	Lab Science general education elective Select from BIO 113, CHE 106, PHY 111.	3
THIRD SEMESTER		
MUS 128	Music Theory II (2/2)	3
MUS 168	Musicianship II (0/2)	1
MUS 224	Music History and Literature I (3/0)	3
MUS 221	Piano Class III (0/2)	1
MUS 209	Applied Music III (.5/1)	1
MUS —	Performing Ensemble III (1/2) Chamber Ensemble (one semester minimum), Chorus, Jazz Band, or Orchestra	1
— —	Social Science general education elective	3
— —	Elective Select from MUS 101, 102, 109, 111, 112, 117, 118, 119, 120, 123, 151, 155, 156, 201, 202, 211, 212, 217, 218, 219, 220, 285, 286. Or select from ASL 101, CMN 153, EDU 109, FRE 101, GER 101, ITA 101, LAT 101, PSY 101, PSY 206, SOC 101, SPA 101.	3

Curriculum

FOURTH SEMESTER		
MUS 227	Music Theory III (2/2)	3
MUS 267	Musicianship III (0/2)	1
MUS 225	Music History and Literature II (3/0)	3
MUS 222	Piano Class IV (0/2)	1
MUS 210	Applied Music IV (.5/1)	1
MUS —	Performing Ensemble IV (1/2) Chamber Ensemble (one semester minimum), Chorus, Jazz Band, or Orchestra	1
— —	Technology general education elective Select from DMA 144; IST 101, 102, 109, 140.	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits.

NOTE: Students must earn a minimum grade of C in all MUS courses to graduate.

Arts and Communication Division

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Nursing

ASSOCIATE IN SCIENCE DEGREE (A.S.)

The Associate Degree **Nursing** (ADN) program combines coursework in nursing and general education with clinical experiences in area healthcare facilities under the supervision of college faculty. Students are challenged to achieve their goals in a caring, creative, and engaged learning environment.

The program uses a concept-based curriculum to develop students' clinical judgement to care for a diverse patient population across the lifespan, wherever nursing care is delivered. Students are prepared to master the National Council Licensure Examination for Registered Nurses (NCLEX-RN) and assume roles as registered professional nurses within the healthcare community.

The Nursing program is accredited by the New Jersey Board of Nursing / 124 Halsey Street, 6th Floor, Newark, NJ 07102 / 973-504-6430; and by the Accreditation Commission for Education in Nursing (ACEN) / 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326 / 404-975-5000.

The philosophy of the ADN program is based on the principle that faculty mentor, educate, and encourage students to develop the knowledge, skills, and attitudes required to provide safe and effective nursing care. Students are proactive participants and co-create their learning.

The Nursing program uses the program's mission and philosophy to formulate program student learning outcomes which serve as the basis for the development, implementation, and evaluation of the Nursing program curriculum.

PROGRAM OUTCOMES

- Apply clinical judgement to provide safe, evidence-informed patient-centered nursing care in a variety of healthcare settings to diverse patient populations across the lifespan;
- Implement written and verbal therapeutic communication, information literacy, and use of healthcare technology to promote safe and positive outcomes through the continuum of care delivery;
- Collaborate with members of the interprofessional team, the patient, and the patient's support person to promote care that incorporates a culturally humble and holistic focus;
- Promote health equity through the inclusion of social determinants of health in the nursing process;
- Develop a professional identity that includes a spirit of inquiry and an ethical practice with advocacy for patient-centered care.

The Nursing program offers both a daytime and an evening/weekend option. Upon enrollment in the college, students must declare their program of study (major) as Health Science - Nursing. Students must be a U.S. citizen or permanent resident.

Admission to the college requires a high school diploma or its equivalent, satisfactory performance on the college skills placement test, and completion of any required academic foundations courses.

Admission to the Nursing program requires a cumulative (transfer or Mercer) minimum GPA of 2.5 or higher, successful completion of an admissions assessment exam, completion of first and second semester courses, and attendance at a mandatory Nursing program information session.

Students must earn a minimum grade of C in all required general education courses and C+ or higher in BIO 103, 104, and 201 as well as all nursing courses in order to progress through the curriculum and graduate.

Upon completion of the program, graduates can apply for licensure as a Registered Nurse through the New Jersey or any other state Board of Nursing and are prepared to take the National Council of State Boards of Nursing Licensure Exam (NCLEX-RN). The New Jersey Board of Nursing reserves the right to determine the eligibility for licensure of any student with a history of substance abuse or criminal offenses.

BSN COMPLETION

MCCC students have the opportunity to apply to a variety of BSN completion programs through the college's partnership with four-year Nursing programs.

For **further information** on these opportunities as well as details concerning admission to MCCC's Nursing program, visit the program website. Applicants are strongly encouraged to make advisement appointments with the Nursing program office.

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Nursing (cont'd)

ASSOCIATE IN SCIENCE DEGREE (A.S.)

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BIO 103	Anatomy and Physiology I (3/3)	4
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0) Acceptable alternatives include MAT 140, MAT 146, MAT 149, and MAT 200. Students who do not place at MAT 125 or higher must meet with their program advisor to create an academic plan.	3
PSY 101	Introduction to Psychology (3/0)	3
SECOND SEMESTER		
BIO 104	Anatomy and Physiology II (3/3)	4
CHE 107	General and Physiological Chemistry (2/1/2) CHE 101 and CHE 102 are acceptable alternatives.	4
ENG 102	English Composition II (3/0)	3
PSY 207	Developmental Psychology: Across the Life Span (3/0)	3
THIRD SEMESTER		
BIO 201	Microbiology (3/3)	4
NRS 105	Professional Nursing (1/0)	1
NRS 115	Concepts of Nursing Practice I (3/3/6)	6
FOURTH SEMESTER		
NRS 150	Concepts of Nursing Practice II (3/3/8)	6
— —	Humanities general education elective	3
FIFTH SEMESTER		
NRS 245	Concepts of Nursing Practice III (3/3/8)	6
SIXTH SEMESTER		
NRS 250	Concepts of Nursing Practice IV (3/3/8)	6
NRS 275	Transition to Nursing Practice (1/0/16)	1
		60

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Oracle SQL Programming and Database Design Specialist

CERTIFICATE OF ACHIEVEMENT

The **Oracle SQL Programming and Database Design Specialist** micro-credential equips students with the skills needed for entry-level positions as a database developer/programmer. Students learn to design a database and program using a live Oracle server with curriculum provided by the Oracle Corporation -- enhancing employability and allowing students to update their technological skills.

Upon completion, students are eligible for and encouraged to take the Level I Developer certification examinations:

* Oracle Database 11g: Program with PL/SQL exam number 1Z0-144

* Oracle Database: Advanced PL/SQL exam number 1Z0-148 (PL/SQL is prerequisite)

PROGRAM OUTCOMES

- Explain basic concepts of databases;
- Code using Oracle Structured Query Language programming;
- Code using PL/SQL programming language.

Successful completion of credits from this Certificate of Achievement can be applied toward the Database Administration certificate and Computer Information Systems degree programs.

Admission to the program requires readiness for college-level English and Math and approval from the program coordinator. Students may receive credit for previous training in a skills area by applying for credit by examination, credit by experience, and/or transfer credit as evaluated and approved by the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
IST 109	Introduction to Programming (2/2)	3
SECOND SEMESTER		
IST 253	Database Concepts (2/2)	3
IST 262	Oracle SQL (3/2)	4
THIRD SEMESTER		
IST 222	PL/SQL Programming (2/2)	3
		13

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Paralegal

CERTIFICATE OF PROFICIENCY

The **Paralegal** Certificate of Proficiency program, designed for students seeking a flexible and affordable path to earn an ABA-approved credential, generally includes only practical legal specialty courses and is relatively short in duration.

Proof of a prior associate or bachelor's degree is required prior to admission and students must demonstrate at least 18 credits of approved general education coursework in that degree.

This certificate program is approved by the American Bar Association (ABA).

PROGRAM OUTCOMES

- Understand the roles and responsibilities of legal professionals in a variety of legal employment settings;
- Identify and implement standards of legal ethics and professionalism;
- Demonstrate practical skills in a range of substantive legal areas;
- Engage in effective written and verbal professional communication;
- Develop appropriate methods for embarking on a legal career.

As part of this post-degree certificate program, each student must complete 18 credits of designated legal specialty courses which include 9 credits (three courses) of core legal specialty courses which must be attained through synchronous instruction. The remaining courses are offered online, on campus, daytime and/or evening.

Legal specialty courses are designed to provide students with instruction in practical skills for entry-level positions.

In the United States, paralegals may not provide legal services directly to the public or engage in the practice of law, except as permitted by law. Courses in the program do not include training for jurisdiction-specific legal instruction and do not qualify as the instruction of law nor do they prepare students to practice law or to represent clients. In New Jersey, only an attorney who is admitted to the state bar may practice law.

Curriculum

Code	Course (lecture/lab hours)	Credits
BUS 107	Business Law I (3/0)	3
BUS 108	Legal Environment of Business (3/0)	3
LEG 129	Role of the Paralegal (3/0)	3
LEG 130	Civil Litigation I (3/0)	3
LEG 132	Civil Litigation II (3/0)	3
LEG 133	Legal Research and Writing (3/0)	3
LEG 255	Ethics and Professionalism (3/0)	3
LEG 256	Career Development for Law and Justice Professionals (1/0)	1
LEG 258	Research and Project Management: Legal, Business, and Justice Applications (3/0)	3
— —	Program elective Select from BUS 101, 102, 111, 230, 240; CRJ 101, 102, 103, 104, 105, 202, 206, 211, 212; LEG 143.	3
		28

NOTE: **Prior Degree Requirement:** This certificate program is available only to students who possess an associate or bachelor's degree prior to enrollment. Students must complete ENG 101 and six (6) additional general education courses at MCCC if not completed with prior degree.

NOTE - **Course Transfer Limitations:** Students may transfer up to six (6) credits of qualified non-legal specialty courses (including BUS 107, BUS 108, CRJ 202, and LEG 256) into this certificate program from other institutions, pending review and approval. LEG 129, 130, 132, 133, 143, 255, and 258 are legal specialty courses per the ABA definition of practical curriculum courses and do not qualify for transfer.

NOTE - **Program Modality Requirements:** Per ABA Guidelines, LEG 130, 132, and 133 must be completed via live remote or on-campus instruction in order for students to fulfill the required nine (9) credits of live instruction via remote learning modality. The college offers live remote instruction for legal specialty courses in Fall and Spring semesters. All other program courses may be completed online if desired.

Business, Technology, and Professional Studies Division

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NOTE: All program listings are subject to periodic updates.
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Photography

ASSOCIATE IN FINE ARTS DEGREE IN VISUAL ARTS (A.F.A.)
CERTIFICATE OF PROFICIENCY

The **Photography** program provides for development of skills and creativity in both filmbased and digital photography. Topics covered include camera operation, exposure, processing, retouching, manipulation/ montage, printing and other forms of media output as well as the use of artificial and natural lighting.

The program incorporates a balance of traditional and digital photographic techniques allowing students to understand technology's role in photography. It encourages aesthetic growth while creating a balance between personal expression and commercial application. Emphasis on experiences in the darkroom, digital laboratory, on location, and in the studio develops both the creative ability and the technical skills essential to photography careers and transfer to four-year institutions.

If the required courses are taken starting in the summer, the certificate can be completed in one year of full-time study. The Associate in Fine Arts degree is a two-year program. Before completion of either program, students are required to develop a portfolio to serve in the pursuit of further education or employment.

DEGREE PROGRAM OUTCOMES

- Demonstrate proficiency with photographic capture devices;
- Process, manipulate, and print images in photographic labs;
- Practice archival image work flow;
- Identify and explain the significant events in art history as well as contemporary practices;
- Integrate different techniques and approaches to photography and digital imaging;
- Analyze and evaluate images in the context of group critiques;
- Create a portfolio for education transfer.

CERTIFICATE PROGRAM OUTCOMES

- Demonstrate proficiency with photographic capture devices;
- Practice archival image work flow;
- Integrate different techniques and approaches to photography and digital imaging;
- Analyze and evaluate images in the context of group critiques;
- Create a portfolio for employment, or artistic venues.

Students from the degree program have transferred to major art schools such as Stockton University, School of the Visual Arts, Pratt Institute, SCAD and TCNJ. Students wishing to transfer should consult the program coordinator or their academic advisor concerning transfer agreements with four-year institutions.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ART 105	Two Dimensional Design	3
ENG 101	English Composition I	3
PHO 101	Black & White Film Photography I	3
PHO 103	Digital Photography I	3
— —	Social Science general education elective	3
SECOND SEMESTER		
DMA 110	Digital Imaging	
	OR	3
ART 102	Basic Drawing ART 102 required for Stockton Transfer Agreement	
CMN 111	Speech: Human Communication	
	OR	3
CMN 112	Public Speaking	
PHO 203	Photography II	3
PHO 110	History of Photography	3
GEN Ed	Math Required for Stockton University Transfer. Recommended to take MAT 120 or MAT 125.	3
	OR	3
GEN Ed	Science / Lab Science / Technology Select from 3 credit courses only.	
THIRD SEMESTER		
— —	Diversity and Global Perspective elective	
	OR	
— —	General Education Humanities	
	OR	3
ART 121	History of Art I Required for Stockton University Transfer.	
DMA 250	Digital Portfolio Seminar	3
ENG 102	English Composition II	3
PHO 202	Studio Photography	3
— —	Science elective Outside of Lab Science 3	
	OR	
— —	Lab Science elective	
	OR	
— —	Technology elective	
DMA 144	Internet Tools & Techniques Required for Stockton University Transfer.	
FOURTH SEMESTER		
ADV 210	Typography II: Publication Design	3
CMN 146	Social Media Technologies	
	OR	3
ART 106	Three Dimensional Design Required for Stockton University Transfer.	
ART 122	History of Art II	3
ART 125	Topics in Contemporary Art	3
PHO 251	Documentary Photography	3
		60

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Photography (cont'd)

ASSOCIATE IN FINE ARTS DEGREE IN VISUAL ARTS (A.F.A.)
CERTIFICATE OF PROFICIENCY

Curriculum

Accounting 26

Code	Course (lecture/lab hours)	Credits
DMA 110	Digital Imaging I (1/4)	3
ENG 101	English Composition I (3/0)	3
PHO 103	Digital Photography I (2/3)	3
ADV 210	Typography II: Publication Design (1/4)	3
CMN 146	Social Media Technologies (2/2)	3
PHO 202	Studio Photography (1/4)	3
PHO 203	Photography II (1/4)	3
DMA 250	Digital Portfolio Seminar (1/4)	3
PHO 110	History of Photography (3/0)	3
PHO 251	Documentary Photography (1/4)	3
		30

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Photography - Commercial

CERTIFICATE OF ACHIEVEMENT

The Commercial Photography micro-credential program is designed for those seeking to expand their skills in photography for personal growth, employment advancement, or to start their own portrait and product photography studio, or editorial and event photography business.

PROGRAM OUTCOMES

- Demonstrate proficiency with digital cameras;
- Implement effective strategies for image retouching using Adobe software;
- Integrate different techniques and approaches for editorial, portrait, product, and event photography;
- Develop a business model for your entity, including contracts, usage rights, and billing.

Successful completion of credits from this Certificate of Achievement can be applied toward the Photography degree or Certificate of Proficiency programs.

Admission to the program requires readiness for college-level English and Math and approval from the program coordinator. Students may receive credit for previous training in a skills area by applying for credit by examination, credit by experience, and/or transfer credit as evaluated and approved by the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
DMA 110	Digital Imaging I (1/4)	3
PHO 103	Digital Photography I (2/3)	3
PHO 202	Studio Photography (1/4)	3
PHO 203	Photography II (1/4)	3
PHO 251	Documentary Photography (1/4)	2
		15

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NOTE: All program listings are subject to periodic updates.
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Physical Therapist Assistant

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **PTA.B.AAS**
CIP 510806

The **Physical Therapist Assistant** (PTA) program combines courses in general education and physical therapy with supervised clinical experiences in area clinics, hospitals, and private practices. The PTA program at Mercer County Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314; 703-706-3245 www.capteonline.org

Graduates are eligible to take the National Physical Therapy Examination for licensure as physical therapist assistants and be recognized by the State of New Jersey Department of Law & Public Safety, Division of Consumer Affairs, State Board of Physical Therapy Examiners, which regulates the practice of physical therapy in the state of New Jersey.

PTAs work under the supervision and direction of a physical therapist and are employed by acute, post-acute, and outpatient physical therapy facilities.

PROGRAM OUTCOMES

- To maintain high-quality PTA courses and instruction for a diverse student population;
- To provide meaningful and effective services and activities that support student success and preparation for safe and competent clinical practice;
- To foster learning environments that celebrate and value diversity and respect;
- To manage resources that support affordability, quality teaching, innovation, and safe learning environments;
- To foster community connections with providers of quality physical therapy to enhance the vitality of the PTA program and contribute to the physical therapy community;
- To provide an environment that creates adaptive learners who are able to function in complex, uncertain, and novel situations;
- Students will develop into adaptive learners who are able to function in complex, uncertain and novel situations.
- Students will develop a professional identity and commitment to the physical therapy profession.

Applicants must have a high school diploma or the equivalent with at least one year of a high school laboratory science. Students who did not complete at least one year of a high school laboratory science and those students whose background in the sciences is old or weak may be expected to complete one or more of the following courses: Physical Science Concepts (PHY 111), Introductory Chemistry (CHE 100), Biological Science Concepts (BIO 113). Full acceptance into the program requires satisfactory performance on the college skills placement test or completion of any required remediation.

Enrollment in the program is limited and based upon an application process. Details regarding the admissions criteria and application process are available on the PTA program website as well as through the Enrollment Services office or Health Professions division.

All professional phase PTA students are required to undergo a criminal background check, obtain a physical examination, and fulfill other health records requirements prior to commencing the clinical portion of the program. The New Jersey Board of Physical Therapy Examiners has the right to determine eligibility for licensure. For additional information, contact the PTA program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
	PRE-PROFESSIONAL PHASE	
	FIRST SEMESTER	
BIO 103	Anatomy and Physiology I (3/3)	4
ENG 101	English Composition I (3/0)	3
PSY 101	Introduction to Psychology (3/0)	3
MAT —	Mathematics elective Select from MAT 115, 125, 140, 200, or approved alternative. Students who do not place at this mathematics level must meet with their program advisor to develop an academic plan.	3-4
	SECOND SEMESTER	
BIO 104	Anatomy and Physiology II (3/3)	4
ENG 102	English Composition II (3/0)	3
PTA 105	Kinesiology (3/0)	3
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.	3
	PROFESSIONAL PHASE	
	FIRST SEMESTER (Fall)	
PTA 107	Therapeutic Measurement (1/2)	2
PTA 112	Pathology for PTAs (3/0)	3
PTA 222	Clinical Orthopedics (3/3)	4
PTA 227	PTA Seminar (3/0)	3
	SECOND SEMESTER (Spring)	
PTA 114	Applied Kinesiology (1/2)	2
PTA 210	PTA Techniques (3/2)	4
PTA 214	Physical Agents (2/2)	3
PTA 232	PTA Professional Development (2/0)	2
	SUMMER SESSION	
PTA 223	PTA Clinical Education I (160 hours)	4
	THIRD SEMESTER (Fall)	
PTA 207	Motor Development (2/0) A 144 recom	1
PTA 217	PTA Therapy Clinic (3/3) Courses are interrupted for five weeks for the Clinical Education course included in the semester. Class times have been adjusted accordingly.	4
PTA 235	PTA Clinical Education II (200 hours)	4
	FOURTH SEMESTER (Spring)	
PTA 240	PTA Clinical Education III (240 hours)	5
		67-68

NOTE: Students must earn a minimum grade of C+ in all PTA, mathematics, and science courses. All PTA courses may only be attempted twice.

Science, Health Professions, and Nursing Division
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Physics

ASSOCIATE IN SCIENCE DEGREE IN LIBERAL ARTS AND SCIENCES (A.S.)

The **Physics** option of the Liberal Arts and Sciences program prepares students to enter the junior level of a baccalaureate degree program leading to careers in the fields of physics and engineering.

This program conforms to the provisions of the New Jersey Statewide Transfer Agreement. An A.S. degree in Physics from Mercer County Community College will be fully transferable as the first two years of a baccalaureate degree program at New Jersey public four-year institutions. Students also have transferred to other four-year institutions throughout the country.

Students may complete the degree in two years, and in less time by taking advantage of summer courses.

PROGRAM OUTCOMES

- Understand the basic laws and principles of physics and engineering;
- Demonstrate working knowledge of scientific instruments through hands-on laboratory experience;
- Exhibit strong problem-solving and critical thinking skills;
- Communicate effectively both with the scientific community and the general public.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0)	4
PHY 115	University Physics I (3/3)	4
— —	Humanities general education elective	3
SECOND SEMESTER		
COS 101	Introduction to Computer Science (3/2)	4
ENG 102	English Composition II (3/0)	3
MAT 152	Calculus II for the Mathematical and Physical Sciences (4/0)	4
PHY 215	University Physics II (3/3)	4
THIRD SEMESTER		
CMN 111	Speech: Human Communication (3/0) OR	3
CMN 112	Public Speaking (3/0)	
MAT 251	Calculus III (4/0)	4
— —	Science elective Select from CHE 101, 102; BIO 101, 102, 201, 202, 203, 204, 208.	4
— —	Social Science general education elective	3
FOURTH SEMESTER		
MAT 252	Differential Equations (4/0)	4
— —	Science elective Select from CHE 101, 102; BIO 101, 102, 201, 202, 203, 204, 208.	4
— —	Science elective Select from CHE 101, 102; BIO 101, 102, 201, 202, 203, 204, 208.	4
— —	Social Science or Humanities general education elective	3
		60

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Science, Health Professions, and Nursing Division

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Plant Science

ASSOCIATE IN SCIENCE DEGREE (A.S.)

Programs **CPA.ACC26.CERT**
CPA.BUS24.CERT
CIP 520303

The **Plant Science** program prepares students for the junior year of study at a college or university offering such fields as horticulture, botany, conservation, environmental science, ecology, and forestry. Horticulture students who plan to pursue a baccalaureate degree should consider this alternative.

Facilities to support the program include well-equipped biology and chemistry laboratories, a modern greenhouse complex, and an extensive woody plants collection throughout the 292-acre West Windsor Campus. Occasional field trips to Longwood Gardens, the New Jersey Pine Barrens, Marquand Park, and elsewhere offer additional opportunities for specialized study of plant specimens.

PROGRAM OUTCOMES

- Explain the structures and processes related to plant growth and function;
- Identify common insects, diseases, and woody plants found in our region;
- Understand key environmental issues as they relate locally, nationally, and globally;
- Exhibit proficiency in the laboratory and in the field by using standard equipment and measurement and observation techniques that allow one to gather, analyze, and interpret qualitative and quantitative data;
- Transfer and successfully pursue a baccalaureate degree in a related field.

Admission to the Plant Science program requires a high school diploma or its equivalent with at least one year of science (biology or chemistry) and two years of algebra.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BIO 101	General Biology I (3/3)	4
ENG 101	English Composition I (3/0)	3
OHT 101	Plant Science (2/2)	3
— —	Humanities general education elective	3
— —	Social Science general education elective	3
SECOND SEMESTER		
BIO 102	General Biology II (3/3)	
CMN 111	Speech: Human Communication (3/0)	3
	OR	
CMN 112	Public Speaking (3/0)	3
ENG 102	English Composition II (3/0)	
MAT 146	Pre-Calculus (4/0)	3
THIRD SEMESTER		
BIO 203	Entomology (3/3)	4
BIO 204	Ecology (3/3)	4
CHE 101	General Chemistry I (3/3)	4
OHT 204	Plant Diseases (2/2)	3
FOURTH SEMESTER		
BIO 202	Woody Plants (3/3)	4
CHE 102	General Chemistry II (3/3)	4
OHT 108	Soil and Plant Nutrition (3/3)	4
— —	Social Science or Humanities general education elective	3
		60

NOTE: Plant Science majors must earn a minimum grade of C in all BIO and OHT courses.

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Science, Health Professions, and Nursing Division

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Professional Acting

CERTIFICATE OF ACHIEVEMENT

The **Professional Acting** micro-credential is designed for those seeking to expand their skills in performance for personal growth and employment advancement.

Combining intensive classroom study and performance, the program is dedicated to developing an actor who can cope with the demands of the contemporary stage and work with a range of dramatic materials – from classical to modern – that reflect current productions in the theatre centers of the United States.

PROGRAM OUTCOMES

- Demonstrate proficiency in acting;
- Conduct research in preparation for performing a role;
- Independently interpret dramatic literature for performance;
- Use a variety of acting, movement, and vocal techniques to craft a performance;
- Work collaboratively with artistic and production staff;
- Create successful auditions by preparing materials and exhibiting professional conduct.

Successful completion of credits from this Certificate of Achievement can be applied toward the Theatre degree programs.

Admission to the program requires readiness for college-level English and Math and approval from the program coordinator. Students may receive credit for previous training in a skills area by applying for credit by examination, credit by experience, and/or transfer credit as evaluated and approved by the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
THR 104	Fundamentals of Acting (2/2)	3
THR 207	Scene Study I (3/0)	3
VPA 228	Artistic Collaboration Workshop (2/2) Consult program coordinator concerning ENG 101 prerequisite.	3
THR 105	Acting II: Principles of Characterization (2/2)	3
THR 217	Theatre Production (1/5)	3
		15

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Arts and Communication Division

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Professional Baking
CERTIFICATE OF PROFICIENCY

The **Professional Baking** certificate program prepares graduates for employment in individual bake shops or in the bakery production departments of healthcare institutions, restaurants, supermarkets, hotels, catering businesses or cruise ships

PROGRAM OUTCOMES

- Prepare a wide variety of foodservice bakery products;
- Use safe and sanitary methods in the production of a wide variety of bake shop goods within many commercial and noncommercial bakery production businesses;
- Use basic, intermediate and advanced baking techniques and tools within any bake shop operation;
- Assess overall quality of the baked goods produced and served;
- Use standardized recipes;
- Apply culinary terminology used within the food service industry;
- Appraise the needs of and have the ability to purchase food and nonfood supplies for commercial bakery operations.

Most of the credits earned in acquiring the Professional Baking Certificate can be applied towards the college's associate degree programs.

Admission to the program requires a high school diploma or its equivalent.

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
HOS 100	Hospitality Success Skills (1/0)	1
HOS 101	Food Preparation I (1/4)	3
HOS 110	Breakfast / Pantry (1/3)	2
HOS 111	Culinary Math (1/0)	1
HOS 118	Sanitation and Safety in Food Service Operations (2/0)	2
HOS 217	Professional Baking I (1/4)	3
HOS 115	Food and Culture (2/2)	3
HOS 218	Professional Baking II (1/4)	3
HOS 219	Professional Baking III (1/3)	2
HOS 230	Experimental Kitchen (1/3)	2
HOS 245	Chocolates and Confections / Retail Bakeshop (1/4)	3
HOS 249	Advanced Pastry (1/3)	2
HOS 287	Hotel/Restaurant Management Internship	1
		31

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Professional Cooking
CERTIFICATE OF PROFICIENCY

The **Professional Cooking** certificate program prepares individuals for professional entry into the food service industry. It provides a working knowledge of commercial preparation of a wide variety of food products combined with hands-on skills.

Graduates can participate professionally in the food production departments of restaurants, hotels, conference centers, hospitals and nursing homes, catering operations, and many other types of food service businesses. In some cases, this education prepares students to enter supervisory positions.

PROGRAM OUTCOMES

- Prepare a wide variety of food products used in the food service industry;
- Prepare a wide variety of food service bakery goods;
- Use standardized recipes;
- Apply the culinary terminology used within the food service industry;
- Plan and develop appropriate menus which meet the criteria of commercial food operations;
- Demonstrate the techniques necessary to prepare healthful food products for commercial food operations;
- Plan and direct food production in commercial food operations;
- Appraise the needs of, and have the ability to purchase food and nonfood supplies for, commercial food operations;
- Apply the requirements for operating a safe and sanitary food service operation including Hazard Analysis and Critical Control Points (HACCP).

Most of the credits earned in acquiring the Professional Cooking Certificate can be applied towards the college's associate degree programs and for transfer to Johnson & Wales University.

Admission to the program requires a high school diploma or its equivalent.

Curriculum

Code	Course (lecture/lab hours)	Credits
ENG 101	English Composition I (3/0)	3
HOS 100	Hospitality Success Skills (1/0)	1
HOS 101	Food Preparation I (1/4)	3
HOS 111	Culinary Math (1/0)	1
HOS 115	Food and Culture (2/2)	3
HOS 118	Sanitation and Safety in Food Service Operations (2/0)	2
HOS 102	Food Preparation II (1/4)	3
HOS 109	Advanced Culinary Arts (1/4)	3
HOS 110	Breakfast / Pantry (1/3)	2
HOS 210	Applied Kitchen Skills – Cafe (1/4)	3
HOS 217	Professional Baking (1/4)	3
HOS 287	Hotel/Restaurant Management Internship	1
		28

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Professional Studies

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

Programs **PROF.STUD.AAS**
CIP 309999

The New Jersey Department of Labor and Workforce Development (NJLWD) recognizes that, by 2025, the U.S. will have a 23 million shortfall of qualified workers for high-quality employment. The NJLWD also recognizes Industry Valued Credentials as significant prior learning to support working adults.

The A.A.S. degree in **Professional Studies** provides students who have professional certification, licensing, and work experience with a foundation of general, business, and career education. This program affords working professionals the opportunity to leverage certification, licensure, and work experience into college credit. The opportunity to earn college credit is based on Industry Valued Credentials as outlined by the NJLWD.

This degree is also a steppingstone for working professionals looking to earn a bachelor's degree as well as a bridge for students currently holding a degree who are looking to switch careers. Thomas Edison State University accepts transfer to its B.A. in Liberal Studies and B.S. in Technical Studies.

PROGRAM OUTCOMES

- Compete effectively in a technology-based global economy;
- Demonstrate the necessary skills to be more productive in their chosen profession and career;
- Demonstrate competence in a broad array of intellectual and communications skills with information and habits of mind that enrich their lives and enable them to participate more fully in a democratic society.

Curriculum

Code	Course (lecture/lab hours)	Credits
CSW 100	College Success and Personal Wellness (2/0) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
ENG 112	English Composition II with Speech (3/0)	
	OR	3
ENG 102	English Composition II (3/0)	
IST 101	Computer Concepts with Applications (2/2)	
	OR	3
IST 102	Computer Concepts with Programming (2/2)	
MAT —	Mathematics elective	3
— —	Humanities general education elective	3
— —	Science OR Technology general education elective	3
— —	Social Science general education elective	3
— —	Social Science or Humanities general education elective	3
	Credits Subtotal:	26

Students meet with an advisor to select an area of concentration from among all of MCCC's technicallyoriented A.A.S. degree programs. A faculty advisor for the selected concentration will develop a plan of study with each student.

- 25 credits must be earned as block credits in Technical Studies for certified apprenticeship training programs in the building and construction trades.
- 9 additional credits selected in technical or career areas.

Credits Subtotal:	34
	60

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Public Health

ASSOCIATE IN SCIENCE DEGREE (A.S.)

Public health is the practice of maintaining a healthy population through education, research, public policy, regulation of health systems and working health professionals. Public health professionals protect the health of the community, promote healthy lifestyles, and prevent disease and injury through research and education. Public health has been a national objective for more than three decades with focuses on increased public awareness, health equity, healthful behaviors across all life stages, and interaction of national, state, and local stakeholders to strengthen policies and improve practices (e.g., Healthy People 2020).

The A.S. degree in **Public Health** exposes students to the various contributors to public health – including the natural sciences, mathematics, ethics, and social sciences – to form a foundation of public health education. Students are afforded a strong background in science and math along with the general education requirements appropriate for continued Public Health study at a four-year institution.

Successful graduates of this program will be able to transfer to Mercer's articulation affiliates (Rutgers: Edward J. Bloustein School of Planning and Public Policy or William Paterson University) to pursue a bachelor's degree in their chosen area of specialization. Elsewhere in the state, Richard Stockton College and Montclair State University offer a B.S. in Public Health or Health Education while The College of New Jersey and Drew University offer a minor in Public Health.

PROGRAM OUTCOMES

- Demonstrate an understanding of the fundamental concepts of public health;
- View the world and all of its resources with a greater understanding, insight, and appreciation with regard to public health;
- Understand key health issues as they relate locally, nationally, and globally;
- Demonstrate the ability to apply the scientific method of inquiry to gather and use information for the purpose of critical thinking, information analysis, and problem solving;
- Recognize that knowledge of history, literature, geography, and economics all play an important role in public health;
- Transfer and successfully pursue a baccalaureate degree in public health.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BIO 103	Mass Media (3/0)	4
CSH 100 or CSW 100	College Success for Health Professions (1/1) Some exemptions apply. Consult academic advisor for details.	2
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
PSY 101	Introduction to Psychology (3/0)	3
SECOND SEMESTER		
BIO 104	Anatomy and Physiology II (3/3)	4
ENG 102	English Composition II (3/0)	3
HPE 113	Medical Terminology (3/0)	3
PBH 101	Principles of Public Health (3/0)	3
HPE 113	Medical Terminology (3/0)	
	OR	3
PBH 102	Foundations of Community Health Work (3/0)	
SOC 101	Introduction to Sociology (3/0)	3
THIRD SEMESTER		
CHE 107	General and Physiological Chemistry (2/1/2)	4
CMN 111	Speech: Human Communication (3/0)	
	OR	3
	Course choice based on anticipated transfer institution and student's desired area of concentration. Select in consultation with program coordinator in order to assure maximum transfer of credits.	
CMN 112	Public Speaking (3/0)	
PHI 204	Ethics (3/0)	3
PSY 206	Child Development (3/0)	
	OR	3
PSY 207	Developmental Psychology: Across the Life Span (3/0)	
SUS 101	Introduction to Sustainability (3/0)	
	OR	3
	Course choice based on anticipated transfer institution and student's desired area of concentration. Select in consultation with program coordinator in order to assure maximum transfer of credits.	
HIS —	History elective	
FOURTH SEMESTER		
BIO 201	Microbiology (3/3)	4
PSY 210	Abnormal Psychology (3/0)	
	OR	3
PSY 215	Human Sexuality (3/0)	
SOC 209	Racial, Ethnic and Minority Groups (3/0)	
	OR	3
	Course choice based on anticipated transfer institution and student's desired area of concentration. Select in consultation with program coordinator in order to assure maximum transfer of credits.	
SOC 214	Sociology of Drug Use and Behavior (3/0)	
HPE 101	Basic Concepts of Nutrition (3/0)	
	OR	3
PBH 201	Disparities in Individual and Community Well-Being (3/0)	
		60

Science, Health Professions, and Nursing Division
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Radiography

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.)

The **Radiography** program combines courses in general education and radiography with supervised clinical experience in area hospitals. Graduates are eligible to take the American Registry of Radiologic Technologist Examination in Radiography to become nationally certified and licensed by the State of New Jersey.

The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, IL 60606; 312-704-5300 www.jrcert.org ...and the New Jersey Radiologic Technology Board of Examiners. Graduates are employed by hospitals, clinics, diagnostic imaging centers, and the offices of private physicians.

PROGRAM OUTCOMES

- Apply the essential skills to perform diagnostic radiographic procedures competently as entry-level radiographers;
- Communicate effectively in a health care facility;
- Apply effective critical thinking to problem solve;
- Exercise values and attitudes consistent with professional practice.

Applicants must have a high school diploma or the equivalent with one year of laboratory physics and two years of academic mathematics. Students who have not completed these courses within the last five years may fulfill this requirement by completing Basic Algebra (MAT 034) and Fundamentals of Physics (PHY 109).

In order to be accepted into the professional phase of the radiography program, the student must have completed all basic skills and ESL courses and be eligible to enroll in collegelevel English and mathematics. Students must be at least 18 years of age by January of their first year in radiography courses. Enrollment in the professional phase of the radiography program is limited, with priority given to radiography science students who have completed Anatomy and Physiology courses (BIO 103 and 104), Elementary Statistics (MAT 125), and Fundamentals of Physics (PHY 109).

Details regarding the acceptance procedure are available on the college website and may be obtained by contacting the Enrollment Services office or the Health Professions division.

Prior to enrollment in first semester radiography courses, students must obtain a physical examination to include immunizations and lab analyses from a licensed practitioner, and complete a criminal background check. The American Registry of Radiologic Technologists has the right to determine eligibility for certification with regard to misdemeanor and felony convictions and violations of academic integrity. The New Jersey Radiologic Board of Examiners has the right to determine eligibility for licensure. For additional information, contact the Radiography program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
PRE-PROFESSIONAL PHASE		
FIRST SEMESTER		
BIO 103	Anatomy and Physiology I (3/3)	4
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
PSY 101	Introduction to Psychology (3/0)	3
CSH 100	College Success and Wellness for Health (2/0)	2
SECOND SEMESTER		
BIO 104	Anatomy and Physiology II (3/3)	4
ENG 102	English Composition II (3/0)	3
PHY 109	Fundamentals of Physics (2/2)	3
PHI 205	Moral Choices (3/0)	3
PROFESSIONAL PHASE		
FIRST SEMESTER (Fall)		
RAD 102	Introduction to Radiography and Patient Care (1/2)	2
RAD 119	Principles of Imaging Science I (2/0)	2
RAD 127	Radiographic Procedures I (3/3/210)	6
SECOND SEMESTER (Spring)		
RAD 120	Principles of Imaging Science II (2/2)	3
RAD 128	Radiographic Procedures II (2/3/225)	6
SUMMER SESSION		
RAD 117	Radiation Protection and Biology (2/0)	2
RAD 207	Clinical Experience (0/0/225)	2
THIRD SEMESTER (Fall)		
RAD 217	Advanced Imaging Modalities (3/0)	3
RAD 228	Radiographic Procedures III (2/3/340)	7
FOURTH SEMESTER (Spring)		
RAD 224	Introduction to Pathology (2/0)	2
RAD 232	Imaging Equipment and Radiography Seminar (3/2)	4
RAD 240	Advanced Clinical Experience I (0/0/340)	3
SUMMER SESSION		
RAD 242	Advanced Clinical Experience II (0/0/225)	2
		70

NOTE: RAD 127, 128, and 228 require 30 minutes each week for competency testing in the laboratory.

NOTE: Students must earn a minimum grade of C+ in BIO 103, BIO 104, MAT 125, PHY 109, and all RAD courses. A minimum grade of C is required in all other general education courses.

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Respiratory Care

ASSOCIATE IN APPLIED SCIENCE DEGREE (A.A.S.) FROM BROOKDALE COMMUNITY COLLEGE

Programs **RESP.THPY.AAS**
CIP 510908

The Respiratory Care program is offered in cooperation with Brookdale Community College. Students can complete their first two semesters at Mercer and their final four at Brookdale. Respiratory Care courses at Brookdale are only offered once a year in the foursemester course sequence. For more information on the arrangement, including admissions, coursework, and testing requirements, contact the Respiratory Care program coordinator at Mercer immediately to review conditions.

This program prepares students for entry-level positions in respiratory care. Students work with patients in the treatment, management, and control of problems and abnormalities associated with the cardiopulmonary system.

Graduates work closely with patients, doctors, and nurses to provide diagnostic testing, therapeutics, education, rehabilitation, monitoring, life support, and other specialized methods of treatment. Clinical learning experiences are required of all students.

Upon completion of the program, students are eligible to sit for the National Board of Respiratory Care (NBRC) Examination. After successful completion of this examination and application to the Respiratory Care Board, the graduate is also eligible for state licensure as a Certified Respiratory Therapist. Once licensed, graduates are eligible to take the Advanced Practitioner Examinations to become a Registered Respiratory Therapist (RRT).

This program is accredited by the Commission on Accreditation for Allied Health Education Programs (CAAHEP) in cooperation with the Committee on Accreditation for Respiratory Care (CoArc), 1701 West Euless Blvd., Suite 300, Euless, TX 76040, (817) 283-2835.

PROGRAM OUTCOMES

- Assess, analyze, implement, and evaluate respiratory care;
- Perform respiratory quality control activities;
- Apply basic principles of management in the care of groups of patients;
- Exhibit therapeutic communication skills;
- Incorporate ethical/legal considerations into the respiratory action plan;
- Practice as a member of a diverse interdisciplinary healthcare team;
- Continue personal and professional growth;
- Incorporate principles from the social sciences, biologic sciences, and humanities into their practice;
- Practice within the limits and scope of a licensed respiratory therapist.

Curriculum

Code	Course (lecture/lab hours)	Credits
Mercer County Community College		
FIRST SEMESTER		
BIO 103	Anatomy and Physiology I (3/3)	4
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0) Recommended, not required.	3
PSY 101	Introduction to Psychology (3/0)	3
SECOND SEMESTER		
BIO 104	Anatomy and Physiology II (3/3)	4
HPE 113	Medical Terminology (3/0)	3
ENG 102	English Composition II (3/0)	3
BIO 201	Microbiology (3/0)	3
	Credits Subtotal:	30

NOTE: Students must register for MCCC courses in consultation with Respiratory Care program coordinator and earn a minimum grade of C in all. Consult program coordinator immediately to discuss application requirements; assume these need to be completed during the Fall semester. Brookdale reserves the right to admit or reject a student, even if minimum application requirements are met.

Brookdale Community College		
THIRD SEMESTER		
RESP 161	Cardiopulmonary Anatomy and Physiology	3
RESP 162	Fundamental Skills in Respiratory Care	7
FOURTH SEMESTER		
RESP 163	Cardiopulmonary Pathophysiology	4
RESP 164	Patient Assessment and Diagnosis	6
RESP 165	Advanced Life Support and Emergency Care	2
FIFTH SEMESTER		
RESP 261	Neonatal & Pediatric Respiratory Care	2
RESP 262	Adult Critical Care	7
SIXTH SEMESTER		
RESP 263	Subacute Respiratory Care	2
RESP 264	Respiratory Care Practice	7
RESP 265	Issues in Respiratory Care	2
	Credits Subtotal:	52

NOTE: Respiratory (RESP) courses are offered once a year during the designated semesters; must be taken semester by semester in the given order. Consult Brookdale Respiratory Care program director for details and to schedule an opportunity to shadow a respiratory care therapist.

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Small Business Management

CERTIFICATE OF PROFICIENCY

The **Small Business Management** certificate program prepares students to operate or assist in the operation of a successful small business.

At any given time in this country, 7000 to 10,000 people are considering starting a new business. In the last decade, small businesses have outstripped large companies as incubators of new jobs. The National Federation of Independent Businesses states that two of every three new jobs in the last 10 years have been at companies with fewer than 100 employees.

The certificate program informs students of the inherent pitfalls and management skill deficiencies which result in the high failure rate experienced by many small businesses.

PROGRAM OUTCOMES

- Analyze accounting reports to determine profitability, solvency, and liquidity of a business;
- Implement effective methods to attract and retain customers in a small business setting;
- Use terminology common to the business environment for effective communication;
- Apply supervision principles in performing management duties;
- Analyze/resolve problems common to small businesses.

Most credits earned in acquiring the Small Business Management Certificate can be applied toward the Business Studies degree program.

Admission to the program requires a high school diploma or its equivalent. A strong desire to work and succeed in a small business environment is vital.

Curriculum

Code	Course (lecture/lab hours)	Credits
ACC 106	Office Accounting I (3/0)	3
BUS 107	Business Law I (3/0)	3
BUS 202	Customer Orientation (3/0)	3
BUS 210	Principles of Management (3/0)	3
BUS 239	Entrepreneurship (3/0)	3
BUS 296	International Business Practice Firm (1/6)	3
ECO 103	Basic Economics (3/0)	3
ENG 101	English Composition I (3/0)	3
IST 101	Computer Concepts with Applications (2/2)	3
MAT 125	Elementary Statistics I (3/0)	3
MKT 101	Principles of Marketing (3/0)	3
		33

Business, Technology, and Professional Studies Division

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NOTE: All program listings are subject to periodic updates.
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Sustainability

ASSOCIATE IN SCIENCE DEGREE (A.S.)

An increased global focus on green initiatives, alternative energy, and conservation practices has prompted a growing demand for graduates with specialized training in sustainability. The **Sustainability** A.S. degree program exposes students to the various components of sustainability, including areas such as the natural sciences, ethics, and economics as a foundation of sustainability education.

Upon completion of the program, students will be able to transfer to a university and pursue a bachelor's degree in their chosen area of specialization. Currently in New Jersey, Kean University, Stockton College, Montclair State University, and Drew University all maintain bachelor's degree programs in sustainability. Additionally, Rider University offers a minor in sustainability and Ramapo College and Montclair State University have a master's degree program.

Admission to the program requires a high school diploma or its equivalent.

PROGRAM OUTCOMES

- Demonstrate an understanding of the fundamental concept of sustainability;
- View the world and all of its resources with a greater understanding, insight, and appreciation;
- Understand key environmental issues as they relate locally, nationally and globally;
- Demonstrate the ability to apply the scientific method of inquiry to gather and use information for the purpose of critical thinking, information analysis and problem solving;
- Recognize that knowledge of history, literature, geography, economics and ethics all play an important role in sustainability;
- Transfer and successfully pursue a baccalaureate degree in sustainability

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
BIO 101	General Biology I (3/3)	4
ENG 101	English Composition I (3/0)	3
SUS 101	Introduction to Sustainability (3/0)	3
— —	Humanities general education elective Select from PHI 102, 112, 113, 204, 205; SPA 101.	3
— —	Social Science general education elective Select from ECO 111; GEO 101; POL 101, 102; PSY 101; SOC 101.	3
SECOND SEMESTER		
BIO 102	General Biology II (3/3)	4
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
ENG 102	English Composition II (3/0)	3
MAT 151	Calculus I for the Mathematical and Physical Sciences (4/0)	4
THIRD SEMESTER		
CHE 101	General Chemistry I (3/3)	3
MAT 201	Probability and Statistics for Science and Engineering (4/0)	3
PHY 101	College Physics I (3/3)	3
	OR	3
PHY 115	University Physics I (3/3)	3
— —	Technical elective Select from BIO 204; OHT 108; PHY 102, 215.	3
FOURTH SEMESTER		
CHE 102	General Chemistry II (3/3)	4
— —	Technical elective Select from BIO 204; OHT 108; PHY 102, 215.	4
— —	General Education elective Select from ECO 111; GEO 101; PHI 102, 112, 113, 204, 205; POL 101, 102; PSY 101; SOC 101; SPA 101.	3
— —	General Education elective Select from ECO 111; GEO 101; PHI 102, 112, 113, 204, 205; POL 101, 102; PSY 101; SOC 101; SPA 101.	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to ensure maximum transfer of credits.

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Television

ASSOCIATE IN APPLIED SCIENCE DEGREE IN RADIO/TV (A.A.S.)

The Television option of the Radio/TV program is designed to empower students with the knowledge and skills to seek professional careers in all phases of the dynamic worlds of film and television, broadcast journalism, and video production; and to prepare graduates for enrollment into four-year institutions.

In order to enjoy productive careers and compete successfully, graduates must meet the challenge of technological change. Therefore, Television option A.A.S. degree candidates benefit from hands-on real-world training utilizing cutting-edge technology preparing them for employment as directors, producers, editors, camera operators, compositors, audio engineers, writers, and other entry-level positions within the TV and video production industries.

Television majors also have the opportunity to create television programming to be cablecast throughout Mercer County on MCTV, channel 80/26/20. The program of study culminates with students entering their own short features for the college's annual video recognition ceremony, The Bernie Awards.

All production classes involve state-of-the-art TV studio and control room equipment, and include practical experience with studio and portable cameras, video editing, graphics, special effects, producing, writing, and directing. Students should be prepared for a course of study emphasizing and developing communication skills in addition to practical and theoretical television instruction.

Many alumni of the Television option are employed by facilities in Philadelphia, New Jersey and New York, assuming a wide variety of jobs at all levels in the television industry. Many are successful producers in documentary, educational, industrial, and other video work. In addition, graduates have transferred to colleges and universities in New Jersey and other states including Rutgers University, The College of New Jersey, Rider University, Rowan University, William Paterson State University, Syracuse University, Ithaca College, Emerson College, Temple University, and New York University.

Admission to the Television option requires visual and aural acuity and a high school diploma or its equivalent.

PROGRAM OUTCOMES

- Produce cable television shows;
- Achieve entry-level professional competence for a position in commercial, public, industrial, instructional, and cable television studios and facilities;
- Write, produce, direct, and edit a variety of hi-definition video productions;
- Write various scripts, including commercials, news, and short film;
- Operate ENG (electronic news gathering) equipment;
- Produce a short film or documentary;
- Work on a professional project;
- Use cutting-edge non-linear video editing equipment;
- Build a strong, competitive portfolio;
- Operate a broadcast TV switcher and audio console.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
CMN 101	Mass Media (3/0)	3
CMN 111	Speech: Human Communication (3/0)	
	OR	3
CMN 112	Public Speaking (3/0)	
CMN 141	Introduction to Television Production (2/2)	3
DMA 144	Internet Tools and Techniques (1/4)	3
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
CMN 142	Introduction to Field Production (2/2)	3
CMN 147	Introduction to Story (2/2)	3
CMN 153	Digital Audio Production I (2/2)	3
DMA 210	Motion Graphics (1/4)	3
THIRD SEMESTER		
CMN 131	Journalism I (3/0)	3
CMN 146	Social Media Technologies (2/2)	3
CMN 241	Applied Field Production (2/2)	3
CMN 243	Cinematography (2/2)	3
MAT 125	Elementary Statistics I (3/0) MAT 120 is an acceptable alternative.	3
FOURTH SEMESTER		
CMN 242	Advanced Film Production (2/2)	3
CMN 275	TV Technology and Culture (3/0)	3
CMN 290	Internship: Communications	
	OR	3
CMN 285	Special Studies in Television Production	
— —	Social Science general education elective	3
— —	General Education elective Select course from the following general education categories: Social Science, Humanities, Historical Perspective, Diversity and Global Perspective.	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to assure maximum transfer of credits. Students must earn a minimum grade of C in all CMN courses to graduate.

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Theatre

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)
ASSOCIATE IN FINE ARTS DEGREE IN PERFORMING ARTS (A.F.A.)

The **Theatre** program combines intensive classroom study and performance to challenge the serious student who aspires to a career in the entertainment industry. The program is dedicated to developing the total actor who can cope with the demands of the contemporary stage and work with a range of dramatic materials – from classical to modern, musicals to the avant-garde – that reflect current productions in the theatre centers of the United States.

The program offers two degree options, A.A. or A.F.A., both of which combine conservatory training in the performing arts with academic education in the liberal arts. The A.A. allows students to transfer as juniors into bachelor of arts programs in theatre. The A.F.A. includes additional training in performing arts and prepares students for work as well as further study in the field.

PROGRAM OUTCOMES

- Conduct research in preparation for performing a role;
- Independently interpret dramatic literature for performance;
- Use a variety of acting, movement, and vocal techniques to craft a performance;
- Work collaboratively with artistic and production staff;
- Create successful auditions by preparing materials and exhibiting professional conduct.

Graduates have transferred to four-year institutions including Temple University, Rider University, The College of New Jersey, Pace University, SUNY Purchase, Penn State, and Rutgers University, among others. Theatre program students have also gone on to perform at The New York International Fringe Festival, George Street Playhouse, Luna Stage, Passage Theatre, and chashama.

The program may be pursued part- or full-time. Theatre courses are offered during the afternoon and early evening, requiring some day classes in order to complete the program. Admission requires a high school diploma or its equivalent.

A.A. Degree Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
CMN 112	Public Speaking (3/0)	3
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
THR 101	Introduction to Theatre (3/0)	3
THR 104	Fundamentals of Acting (2/2)	3
SECOND SEMESTER		
ENG 102	English Composition II (3/0)	3
THR 105	Acting II: Principles of Characterization (2/2)	3
THR 210	Theatre History: Classical to Elizabethan (3/0)	3
HIS —	Historical Perspective general education elective HIS 112 and 113 recommended.	3
MAT —	Mathematics elective Select MAT 120 or 126 in consultation with an academic advisor.	3
THIRD SEMESTER		
DAN 101	Introduction to Dance and Culture (3/0)	3
THR 207	Scene Study I (3/0)	3
THR 212	Central Voices in World Drama (3/0)	3
VPA 228	Artistic Collaboration Workshop (2/2)	3
HIS —	Historical Perspective general education elective HIS 112 and 113 recommended.	3
FOURTH SEMESTER		
THR 217	Theatre Production (1/5)	3
— —	Lab Science general education elective Select from among the course categories of BIO (excluding BIO 114 and 115), CHE, or PHY.	3
— —	Social Science general education elective ANT 101 and PSY 101 recommended.	3
— —	Social Science general education elective ANT 101 and PSY 101 recommended.	3
— —	Technology general education elective DMA 144 recommended.	3
		60

NOTE: Students who forego the courses recommended above should select all other electives in consultation with an academic advisor in order to assure maximum transfer of credits.

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Theatre (cont'd)

ASSOCIATE IN ARTS DEGREE IN LIBERAL ARTS AND SCIENCES (A.A.)
ASSOCIATE IN FINE ARTS DEGREE IN PERFORMING ARTS (A.F.A.)

A.F.A. Degree Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ENG 101	English Composition I (3/0)	3
MAT 125	Elementary Statistics I (3/0)	3
THR 101	Introduction to Theatre (3/0)	3
THR 104	Fundamentals of Acting (2/2)	3
SECOND SEMESTER		
DAN 103	Modern Dance I (1/2)	2
ENG 102	English Composition II (3/0)	3
THR 102	Stagecraft (2/2)	3
THR 105	Acting II: Principles of Characterization (2/2)	3
THR 210	Theatre History: Classical to Elizabethan (3/0)	3
HIS —	Historical Perspective general education elective HIS 112 recommended.	3
THIRD SEMESTER		
CMN 112	Public Speaking (3/0)	3
DAN 101	Introduction to Dance and Culture (3/0)	3
DAN 102	Ballet I (1/2)	2
THR 207	Scene Study I (3/0)	3
THR 212	Central Voices in World Drama (3/0)	3
VPA 228	Artistic Collaboration Workshop (2/2)	3
FOURTH SEMESTER		
DAN 105	Hip Hop and Jazz I (1/2)	2
DAN 116	Studio Dance Technique I (0/6)	3
THR 217	Theatre Production (1/5)	3
— —	Social Science general education elective ANT 101 and PSY 101 recommended.	3
— —	Technology general education elective DMA 144 recommended.	3
		60

NOTE: Students who forego the courses recommended above should select all other electives in consultation with an academic advisor in order to assure maximum transfer of credits.

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Visual Arts

ASSOCIATE IN FINE ARTS DEGREE (A.F.A.)

Programs **VIS.HIS.AFA**
VIS.CER.AFA
VIS.FINE.AFA
CIP 500101

The Associate in Fine Arts degree in **Visual Arts** prepares students to transfer into the third year of a baccalaureate degree program or to work in their field of concentration. Students gain a broad knowledge through the core curriculum and complete their degree requirements through extensive experience in one of four concentrations, or through a tailored set of electives from these four areas.

PROGRAM OUTCOMES

- Identify and explain the significant events in the history of art as well as contemporary practices;
- Discuss and/or integrate different techniques and approaches to art making;
- Analyze and evaluate artwork verbally and in writing;
- Create a portfolio for education transfer, employment, or artistic venues.

Students learn in modern, well-equipped facilities. Most courses are offered through day or evening classes, and an Associate in Fine Arts degree may be pursued either full- or parttime.

Admission to the Visual Arts program requires a high school diploma or its equivalent.

Through the **Art History** concentration (VIS. HIS.AFA), students gain an understanding of the arts of both western and non-western societies, including so-called primitive cultures. Students study the history of painting, sculpture, architecture, printmaking, photography, and decorative arts not only in relation to aesthetics, but also in relation to and as an indicator of world history.

The **Ceramics/Sculpture** concentration (VIS. CER. AFA) provides students with both aesthetic understanding and broad-based knowledge of three-dimensional arts: design, ceramics, and sculpture. Students develop their creativity in and knowledge of a variety of three-dimensional media, technical processes, and traditions.

The **Fine Arts** concentration (VIS.FINE.AFA), with an emphasis on drawing, painting, and printmaking courses, develops students' technical skills and personal expression, and provides a deeper knowledge and appreciation of art history.

For **Photography** concentration (PHOTO.AFA) requirements, refer to the Photography program.

Curriculum

Code	Course (lecture/lab hours)	Credits
FIRST SEMESTER		
ART 102	Basic Drawing (1/4)	3
ART 105	Two-Dimensional Design (1/4)	3
ART 106	Three-Dimensional Design (1/4)	3
ENG 101	English Composition I (3/0)	3
MAT —	Mathematics elective MAT 120 or 125 recommended. Select in consultation with an academic advisor	3
SECOND SEMESTER		
ART 122	History of Art II (3/0)	3
ENG 102	English Composition II (3/0)	3
— —	Concentration elective	3
— —	Concentration elective	3
— —	Concentration elective	3
THIRD SEMESTER		
ART 125	Topics in Contemporary Art (3/0)	3
— —	Concentration elective	3
— —	Concentration elective	3
— —	Concentration elective	3
— —	Concentration elective	3
FOURTH SEMESTER		
ART 121	History of Art I (3/0)	3
CMN 112	Public Speaking (3/0)	3
— —	Concentration elective	3
— —	Concentration elective	3
— —	Concentration elective	3
		60

NOTE: Electives should be selected in consultation with an academic advisor in order to ensure maximum transfer of credits

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Visual Arts (cont'd)

ASSOCIATE IN FINE ARTS DEGREE (A.F.A.)

Programs **VIS.HIS.AFA**
VIS.CER.AFA
VIS.FINE.AFA
CIP 500101

Curriculum

Code	Course (lecture/lab hours)	Credits
	Art History CONCENTRATION electives	
ARC 124	History and Theory of Modern Architecture (3/0)	3
HIS 101	History of Western Civilization to 1648 (3/0)	3
PHO 110	History of Photography (3/0)	3
ART 124	Survey of World Art	3
HIS 102	History of Western Civilization Since 1648 (3/0)	3
— —	World Language elective	3
— —	Social Science general education elective	3
ART 126	African American Art History (3/0)	3
— —	World Language elective	3
— —	Science or Technology general education elective	3
	Ceramics/Sculpture CONCENTRATION electives	
ART 104	Life Drawing (1/4)	3
ART 130	Painting I (1/4)	3
ART 145	Beginning Ceramics: Handbuilding (1/4)	3
ART 141	Sculpture I (1/4)	3
ART 146	Beginning Ceramics: Wheel-Throwing (1/4)	3
DMA 144	Internet Tools and Techniques (1/4)	3
DMA 250	Digital Portfolio Seminar (1/4)	3
ART 241	Beginning Ceramics: Handbuilding (1/4)	3
— —	Visual Arts elective Select in consultation with an academic advisor.	3
— —	Visual Arts elective Select in consultation with an academic advisor.	3
	Fine Arts CONCENTRATION electives	
ART 104	Life Drawing (1/4)	3
ART 130	Painting I (1/4)	3
ART 141	Sculpture I (1/4)	3
ART 150	Printmaking I (1/4)	3
ART 230	Painting II (1/4)	3
DMA 144	Internet Tools and Techniques (1/4)	3
DMA 250	Digital Portfolio Seminar (1/4)	3
ART 145	Beginning Ceramics: Handbuilding (1/4)	
	OR	3
ART 146	Beginning Ceramics: Wheel-Throwing (1/4)	
ART 241	Sculpture II (1/4)	3
— —	Visual Arts elective Select in consultation with an academic advisor.	3

complete content at
www.mccc.edu/catalog

Arts and Communication Division
609.570.3378 - **admiss@mccc.edu**

NOTE: All program listings are subject to periodic updates.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_degree**

Web Development
CERTIFICATE OF ACHIEVEMENT

The **Web Development** micro-credential program is designed for those who wish to develop entry-level web development skills in a short time. Students learn how to design and build websites and applications, involving both front-end and back-end development. The acquired skills enable successful graduates of the program to become a web application developer.

PROGRAM OUTCOMES

- Design and create web pages;
- Build web applications with database integration.

Successful completion of credits from this Certificate of Achievement can be applied toward the Mobile and Web Computing certificate. All courses in this program completed with a grade of C or better may be applied toward the Information Technology, Computer Information Systems, or Computer Science degree programs.

Admission to the program requires computer literacy, one year of high school algebra, readiness for college-level English and Math, and approval from the program coordinator. Prior programming experience is helpful but not necessary. Students may receive credit for previous training in a skills area by applying for credit by examination, credit by experience, and/or transfer credit as evaluated and approved by the program coordinator.

Some courses may be offered only during the evening and some only in alternate semesters. It is essential that students plan ahead in consultation with the program coordinator.

Curriculum

Code	Course (lecture/lab hours)	Credits
IST 108	Introduction to Programming with Mobile Application Development (3/2)	4
IST 144	Website Development (3/2)	4
IST 244	Web Application Development (3/2)	4
		12

complete content at
www.mccc.edu/catalog

Business, Technology, and Professional Studies Division
609.570.3482 - **admiss@mccc.edu**

NOTE: All program listings are subject to periodic updates.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_certificate**

ACC — ACCOUNTING

ACC 106 Office Accounting I 3 credits
Basic accounting course designed for non-transfer students. Emphasizes the techniques of double-entry bookkeeping: journalizing; posting; adjusting and closing entries; and financial statement preparation. 3 lecture hours

ACC 111 Principles of Financial Accounting 4 credits
Prerequisite: MAT 037 or MAT 042 or equivalent proficiency, IST 101 with a minimum C grade
Accounting is the language of business. This course covers the accounting cycle and how accounting data impacts business decisions for external users. Emphasis is placed on the understanding the "why") of accounting as well as the "how". 4 lecture hours

ACC 112 Principles of Managerial Accounting 4 credits
Prerequisite: ACC 111 with a minimum C grade
Study of the uses of accounting information for managerial decision-making. Areas covered include manufacturing, merchandising, and service cost systems; cost-volume-profit analysis; and budgeting and capital investment decision-making. 4 lecture hours

ACC 201 Intermediate Accounting I 3 credits
Prerequisite: ACC 111 with a minimum C grade
Detailed study of accounting theory and practice as they relate to cash; receivables; inventories; investments; property, plant and equipment; and intangible assets. 3 lecture / 1 laboratory hours

ACC 202 Intermediate Accounting II 3 credits
Prerequisite: ACC 201 with a minimum C grade
Continuation of ACC 201. Topics in the study of accounting theory and practice include liabilities, stockholder equity, cash flows, and leases.
3 lecture / 1 laboratory hours

ACC 203 Federal Income Taxation 3 credits
Prerequisite: ACC 111 with a minimum C grade
Study of income taxation as it applies to small businesses and individual taxpayers. Topics include gross income, exclusions, deductions, credits, exemptions, and capital gains. Computer software is used to prepare tax returns. [Fall offering] 3 lecture hours

ACC 204 Auditing 3 credits
Prerequisite: ACC 201 with a minimum C grade
Investigation into and application of the objectives and procedures governing auditing requirements, standards, and examinations. [Spring offering]
3 lecture / 1 laboratory hours

ACC 207 Computerized Accounting 3 credits
Prerequisite: ACC 106 or ACC 111 with a minimum C grade
Introduction to general ledger accounting on PCs. Students acquire a working knowledge of software packages currently used in industry.
2 lecture / 2 laboratory hours

ACC 214 Accounting for Non-Profit Organizations 3 credits
Prerequisite: ACC 111 with a minimum C grade
Study of generally accepted accounting principles as they apply to non-profit organizations, with emphasis on governmental agencies. Additional focus includes accounting for colleges and universities as well as hospitals and health organizations.
3 lecture hours

ACC 215 Cost Accounting 3 credits
Prerequisite: ACC 112 with a minimum C grade
Examination of the accounting practices to record and control material, labor, and overhead costs. Study includes job-order, process co st and standard cost systems for manufacturing and service firms. 3 lecture / 1 laboratory hours

ADV — ADVERTISING + GRAPHIC DESIGN

ADV 101 Advertising Design I 3 credits
Development of basic conceptual ideas, skills, and techniques for typography and design utilizing professional practices and procedures. Use the computer as a graphics tool as well as traditional layout skills. Understand all production processes as it relates to advertising materials. This course also provides the student with an understanding of visual problem solving from the concepts stage through to the final design materials.
1 lecture / 4 studio hours

ADV 110 Typography I: Basics of Graphic Design 3credits
Introduction to basic layout and typography as the fundamental language to graphic communication. No previous knowledge of layout and typography is presumed. Addresses the use of different typefaces to communicate visually desired effects, type forms, type indication and basic graphic design with type for layouts.
1 lecture / 4 studio hours

ADV 201 Advertising Design II 3 credits
Prerequisite: DMA 115 or divisional permission
Study of the advanced concepts and design principles used in planning visualizations and layouts for advertising and editorial presentations using art, photography, type, and illustrations. Survey of methods for developing ideas into graphic presentations and the intangibles that provide originality and variety in a creative field using the Macintosh computer. [Fall offering] 1 lecture / 4 studio hours

ADV 210 Typography II: Publication Design 3 credits
Advanced study of the use of type as it relates to page layout, graphic communication and publication design using Macintosh electronic publishing technology. Students use page makeup software that integrates text and graphics for a variety of projects.
1 lecture / 4 studio hours

ADV 220 Illustration I **3 credits**
Prerequisites: ART 102
Introduction to the concepts, techniques, and skills of the contemporary illustrator, emphasizing that good illustration – product or journalistic – is a means of communication. Assignments involve book and magazine illustration, visualization, and exercises in rendering light and shadow, plus production of comprehensive art in various media.
1 lecture / 4 studio hours

GenEd HUMANITIES

ADV 230 History of Graphic Design 3 credits
Prerequisites: ENG 101 or permission of instructor; Internet access for web-based instruction
A survey of the history of graphic design from its origins to present day. This overview of graphic design develops visual vocabulary, provides a cultural and historical context, and instructs students in researching areas of interest to broaden their knowledge of contemporary graphic design. 3 lecture hours

ANT — ANTHROPOLOGY

GenEd SOCIAL SCIENCE / DIVERSITY AND GLOBAL PERSPECTIVE

ANT 101 Anthropology 3 credits
Corequisite: ENG 101 or college-level eligibility
Explores anthropology – the study of humankind in all places at all times – in its "four fields": physical anthropology (the systematic study of humans as biological organisms); archaeology (the study of human cultures through the recovery and analysis of material remains and environmental data); linguistic anthropology (the study of human language); and cultural anthropology. 3 lecture hours

ARB — ARABIC

Note: Students who have taken two or more years of a foreign language, and have done so in the last two years, should begin that language at the 200 level or switch to a new language. If there is doubt, placement will be determined by testing or consultation with the academic division.

GenEd HUMANITIES

ARB 101 Beginning ArabicI 3 credits
Spoken communication in Arabic is the goal and means of instruction. Initial weeks are dedicated to studying the alphabet and writing system. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced.
3 lecture hours

GenEd HUMANITIES

ARB 102 Beginning Arabic II 3 credits
Spoken communication in Arabic is the goal and means of instruction. Initial weeks are dedicated to studying the alphabet and writing system. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced.
3 lecture hours

ARC — ARCHITECTURE

ARC 102 Graphic Communication for Architecture 3 credits
Corequisite: ARC 121
A lecture / studio course aimed at developing architecture students' graphic communication skills. Analytic and descriptive drawings of buildings, everyday objects, trees, plantings, and people are rendered using pencil, pen and ink, as well as through an introduction to digital imaging and computer-aided design software.
1 lecture / 4 laboratory hours

ARC 104 Computers in Architecture 3 credits
Corequisite: ARC 108
Introduction to the use of the computer in architecture as a three-dimensional design/drawing tool. Students build 3-D models using parametric modeling software and manipulate three-dimensional forms, scenes, colors, textures, lighting and cameras to design effective compositions. Applicable to Windows-based computers.
1 lecture / 4 laboratory hours

ARC 131 Architecture Basic Design I 5 credits
Corequisite: ARC 102
Explores fundamental principles and elements of design: form, space, composition, systems, context, imagery, as well as functional and structural organizations. Solutions to architectonic design projects explored through presentation drawings and study models. Simple presentation graphics and model-building are introduced. [Fall offering]
1 lecture / 8 studio hours

ARC 122 History of Architecture 3 credits
Survey of the development of architecture from ancient civilizations to 1860. Social, religious, economic, technological, and aesthetic factors are explored to understand fully their influence on the development of buildings and cities.
3 lecture hours

ARC 123 Architecture Basic Design II 5 credits
Prerequisites: ARC 102, ARC 121
Corequisite: ARC 104
Further study of the fundamental principles and elements of architectural design through a series of projects having increased complexity and depth of expression using more advanced presentation graphic techniques. Emphasis continues on the development of process drawing and model-building skills to explore design ideas. [Spring offering]
1 lecture / 8 studio hours

ARC 124 History and Theory of Modern Architecture 3 credits
Explores the social conditions and major personalities that influenced architectural developments from the Industrial Revolution to the present.
3 lecture hours

ARC 229 Architecture Design I 4 credits
Prerequisite: ARC 123
Sophomore-level design course emphasizing the exploration and development of architectural design concepts and their translation into physical form. Three to four major design problems challenge the student's preconceptions about architecture and stimulate the growth of an architectural vocabulary. 1 lecture / 6 studio hours

ARC 230 Architecture Design II 4 credits
Prerequisite: ARC 229
Builds on the foundation of ARC 229. More advanced design challenges help the student to sharpen design skills and to continue expanding an architectural vocabulary.
1 lecture / 6 studio hours

ARC 234 Building Construction Systems 3 credits
Introductory survey of general concepts of sustainable design as they relate to building construction. Includes site, structural, environmental, envelope systems, materials and building systems. Focus is primarily on low-rise wood, concrete, steel, and masonry buildings. 3 lecture hours

ARC 285 Special Studies in Architecture Design 3 credits
Prerequisites: ARC 228 with a minimum C grade, divisional permission
Opportunity for students who have completed regular course offerings to continue their studies at advanced levels. Individual students and faculty develop a project contract that sets forth objectives, standards of quality, evaluation guidelines, and deadlines. [occasional offering]
3 lecture hours

ART — FINE ARTS, ART HISTORY

GenEd HUMANITIES

ART 101 Art and Culture 3 credits
Introduction to major movements of Western art as they relate to cultural influences, expanding knowledge, technological change, and effects on modern society. Through studio work, students investigate the intellectual aspects of traditional drawing, painting and mixed media techniques.
2 lecture / 2 studio hours

ART 102 Basic Drawing 3 credits
Examines the fundamentals of seeing line and value through studies of nature, still-life arrangements, the human figure, and concepts of perspective. Various media are used including ink, charcoal, and graphite. 1 lecture / 4 studio hours

ART 103 Freehand Drawing for Architects 3 credits
A lecture / studio course for developing the architecture student's freehand drawing skills, with emphasis on analytic and descriptive drawings of buildings, everyday objects, trees, plantings and people. Media used are pencil, pen and ink, and felt tip pen. 1 lecture / 4 studio hours

ART 104 Life Drawing 3 credits
Prerequisite: ART 102
Experience in drawing the human figure and developing an understanding of form, volume, structure, and anatomy. Exercises include gesture drawing and sustained poses. Various media are used.
1 lecture / 4 studio hours

ART 105 Two-Dimensional Design 3 credits
Intensive investigation of such essential principles as form, line, space, color, balance, and unity in twodimensional design. Projects are assigned in sequence leading to specific visual solutions. Various media are used. 1 lecture / 4 studio hours

ART 106 Three-Dimensional Design 3 credits
An intensive investigation of the use of the formal elements of art and design according to the principles of organization in three-dimensional composition. Various media, techniques, and equipment are introduced. 1 lecture / 4 studio hours

GenEd HUMANITIES

ART 121 History of Art I 3 credits
A survey of Western art from the prehistoric through the late Medieval period, with an emphasis on stylistic analysis within the historical, cultural, and global context. 3 lecture hours

GenEd HUMANITIES

ART 122 History of Art II 3 credits
A survey of Western art from the Renaissance through the World War II period, with an emphasis on stylistic analysis within the historical, cultural, and global context. 3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

ART 124 Survey of World Art 3 credits
Focus on the aesthetic and historical evaluation of artists, styles, and cultures from India, China, Japan, Indonesia, Thailand, Cambodia, and pre-Columbian America. Color slides are analyzed and discussed. 3 lecture hours

GenEd HUMANITIES

ART 125 Topics in Contemporary Art 3 credits
Prerequisite: ENG 101 or divisional permission
Exploration of trends and topics in contemporary art from 1945 to the present, involving a diverse range of artists who challenge preconceived notions of the role of art in today's society. Students learn to identify, analyze, and write about art through multi-media presentations, discussions, artists' talks, and a field trip. 3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

ART 126 African American Art 3 credits
Comprehensive survey of the aesthetic and historical evaluation of African American art, artists and culture from colonial times to the present. Includes slide analysis, discussion, and museum visits.
3 lecture hours

ART 130 Painting I 3 credits
Prerequisite: ART 102 or ART 105 or divisional permission
Examination of the relationships of materials, media, and techniques in both figurative and abstract art. The elements of color and composition are introduced and explored. At the discretion of the instructor, students are advised to work in either acrylic or oil color. 1 lecture / 4 studio hours

ART 141 SculptureI 3 credits
Prerequisite: ART 106
Introduction to sculptural practices and forms. Develops basic understanding of vocabulary of form while mastering technical skills. Acquaintance with several media, content, and organizing form and space. 1 lecture / 4 studio hours

ART 145 Beginning Ceramics: Handbuilding 3 credits
Introduction to basic clay experience, devoted to the handbuilding techniques of pinch, drape, press, slab, and coil to produce functional and sculptural ceramic objects. Introduces the technical aspects of colored slips and glazing. Stresses development of a personal appreciation of form.
1 lecture / 4 studio hours

ART 146 Beginning Ceramics: Wheel-Throwing 3 credits
Introduction to basic clay experience, devoted to clay-forming techniques on the potter's wheel to produce functional and sculptural ceramic objects. Introduces the technical aspects of colored slips and glazing.Stresses development of a personal appreciation of form and function.
1 lecture / 4 studio hours

ART 150 Printmaking I 3 credits
Study of the basic concepts, techniques, tools, and materials required to work in the production of surface, relief, and intaglio prints. Paper selection, preparation of ink, and operation of the presses are discussed and demonstrated.
1 lecture / 4 studio hours

ART 230 Painting II 3 credits
Prerequisite: ART 130 with a minimum C grade
Training and experience in the observation and application of painting media, acrylic or oil. Involves guidance in transforming what is observed or conceived into graphic and plastic forms, including traditional challenges of painting and composition, working with light, color, weight, and dimension.
1 lecture / 4 studio hours

ART 232 Advanced Painting and Drawing 3 credits
Prerequisites: ART 104, ART 230 with a minimum C grade
Intensive course designed for the advanced student, making drawing and painting a unique and personal experience. Through instructor guidance, the student develops a personalized approach to composition, color, and technique. Includes classroom critiques, outside assignments, and possible field trips. [Spring offering]
1 lecture / 4 studio hours

ART 240 Raku Workshop 3 credits
Prerequisite: previous ceramics experience
Introduction to the Raku process. Students spend an intensive six-week period creating, glazing, and firing functional and sculptural ceramic objects.
1 lecture / 4 studio hours

ART 241 Sculpture II 3 credits
Prerequisite: ART 141
Continuation of ART 141 with refinement of presentation of where, when, and how the object is viewed. Concentration on a complete statement of form, space, and content. Further exploration of several media. 1 lecture / 4 studio hours

ART 250 Printmaking II 3 credits
Prerequisite: ART 150 with a minimum C grade
Continued exploration and development of surface, relief, and intaglio techniques.
1 lecture / 4 studio hours

ART 280 Special Studies in Drawing 3 credits
Prerequisites: ART 102, ART 104 with a minimum 3.0 GPA and/or divisional permission

ART 283 Special Studies in Painting 3 credits
Prerequisites: ART 232 and divisional permission

ART 284 Special Studies in Ceramics 3 credits
Prerequisites: ART 146 and divisional permission

ART 285 Special Studies in Sculpture 3 credits
Prerequisites: ART 241 and divisional permission

ART 286 Special Studies in Printmaking 3 credits
Prerequisites: ART 250 and divisional permission
Special courses in specific art forms allow students who have completed regular course offerings to continue their studies at advanced levels. Individual students and faculty develop a project contract that sets forth objectives, standards of quality, evaluation guidelines, and deadlines. [occasional offerings]

ART 291 Cooperative Education – Visual Arts 3 credits
Integration of classroom study and lab work with specific planned period of learning through job experience. Based on an individualized learning contract, designed for Advertising Design and Digital Media Arts majors who have demonstrated advanced skill levels and for those who have potential to perform professionally in a work environment. 270 work experience hours

ASL — AMERICAN SIGN LANGUAGE

GenEd HUMANITIES

ASL 101 American Sign Language I 3 credits
The first in a sequence of courses designed for students with little or no prior knowledge of ASL. Voiceless communication in ASL is both the end goal and the means of instruction. Communicative skills and basic grammar are introduced in a culturally authentic context. [satisfies foreign language requirement] 3 lecture hours

GenEd HUMANITIES

ASL 102 American Sign Language II 3 credits
Prerequisite: ASL 101 with a minimum C grade or permission of instructor
The second in a sequence of courses designed for students with little or no prior knowledge of ASL. Voiceless communication in ASL is both the end goal and the means of instruction. Communicative skills and basic grammar are introduced in a culturally authentic context. [satisfies foreign language requirement] 3 lecture hours

AUT — AUTOMOTIVE TECHNOLOGY

AUT 110 Introduction to Automotive Electronics 3 credits
Corequisites: AUT 111; MAT 037 or MAT 042
An introduction to voltage, current and resistance, series and parallel circuits, batteries, and electronic components. Also covers wiring schematics, wire repair, and circuit troubleshooting. For automotive students. 3 lecture / 1 laboratory hours

AUT 111 Automotive Service Fundamentals 5 credits
Corequisites: AUT 110; MAT 037 or MAT 042
Introduction to the automobile and its operating systems. Emphasizes theories of operation, service facility practices and current servicing procedures, with detailed attention to each individual system including diagnosis and repair. Personal safety policies in the work environment are stressed in detail.
2 lecture / 6 laboratory hours

AUT 112 Automotive Fuel Systems 3 credits
Prerequisites: AUT 110, AUT 111
An examination of gasoline and diesel automotive fuel systems, including fuel basics, electronic fuel injection systems, gasoline direct injection, diesel fuel delivery systems, and On-Board Diagnostics II (OBD II). Lessons focus on theory of operation, driveability diagnostic procedures, and the use of diagnostic equipment.
2 lecture / 3 laboratory hours

AUT 113 Suspension, Steering and Alignment 4 credits
Prerequisites: AUT 110, AUT 111 with a minimum C grade
Theory of operation and service of vehicular suspension and steering systems, with emphasis on component inspection and replacement. Addresses four-wheel alignment with lab activities using a drive-on alignment rack and computer alignment machine. 2 lecture / 4 laboratory hours

AUT 114 Automotive Electricity and Electronics 3 credits

Prerequisites: AUT 110, AUT 111

An examination of electrical/electronic principles applied to current automotive systems. Subjects include electronic control systems, starting and charging systems, wiring diagrams, chassis wiring service, vehicle communication networks, passive restraints, electrical power management, infotainment, navigation, and electrical accessories. Diagnostic skills, testing procedures, and proper service and repair of components emphasized.

2 lecture / 3 laboratory hours

AUT 115 Automotive Brake Systems 4 credits

Prerequisites: AUT 110, AUT 111 with a minimum C grade

The principles and servicing of both disc and drum brake systems used on today's automobiles and light trucks, including computer-controlled anti-lock braking systems with traction and stability control. Emphasis on malfunction diagnosis, use of road testing techniques and visual brake inspection procedures, repair integrity, plus hydraulic theory and component machining operations.

2 lecture / 4 laboratory hours

AUT 122 Internship in Automotive Technology I 1 credit

AUT 123 Internship in Automotive Technology II 1 credit

AUT 221 Internship in Automotive Technology III 1 credit

AUT 222 Internship in Automotive Technology IV 1 credit

AUT 223 Internship in Automotive Technology – Independent Study 1 credit

Prerequisite: coordinator approval

Application of knowledge acquired from lecture and laboratory instruction to gain relevant, practical on-the-job experience in repairing customer vehicles in an actual automotive service facility. An experienced service employee within the business supervises the student/apprentice and works with the automotive program coordinator in developing goals and evaluating performance.

320 work experience hours

AUT 211 Automotive Emissions and Driveability 3 credits

Prerequisite: AUT 112

Examines relationships between gasoline and diesel emissions and engine performance. Teachings from AUT 111 and AUT 112 applied to properly diagnose driveability concerns. Recommended repair procedures are explored to achieve the best performance and reduced emissions. Electronic engine controls examined with an emphasis on operation and emission standards.

2 lecture / 3 laboratory hours

AUT 212 Automotive Air Conditioning 3 credits

Prerequisites: AUT 110, AUT 111 with a minimum C grade

Examines automotive air conditioning/heating systems in use today, with topics ranging from fundamentals of refrigeration to automatic temperature control (ATC) system operation. Addresses proper diagnosis and repair of systems and components as well as environmental obligations.

2 lecture / 2 laboratory hours

AUT 213 Engine Service 4 credits

Prerequisites: AUT 110, AUT 111

Diagnosis, failure analysis, and rebuilding procedures for automobile engines. Topics include engine operating principles, component measurement techniques, engine removal and installation, and service information usage for diagnosis. Each student is required to completely disassemble, diagnose, and assemble several gasoline and diesel engines. Involves extensive use of special tools and equipment. 2 lecture / 5 laboratory hours

AUT 224 Manual Transmissions and Drivelines 3 credits

Prerequisites: AUT 110, AUT 111 with a minimum C grade

Study of automotive systems for torque multiplication and speed reduction includes the relationship of engine speed and vehicle speed and its effect on fuel economy. Other topics include clutch service, front and rear wheel drive applications, component replacement, differentials, diagnosis, removal and reinstallation procedures, and transmission overhaul. Involves extensive use of special tools and test equipment.

2 lecture / 3 laboratory hours

AUT 225 Automatic Transmission Service 3 credits

Prerequisites: AUT 110, AUT 111, AUT 224 with a minimum C grade

Principles of operation and proper diagnostic and repair procedures for current automatic transmissions and transaxles, including electronic computer-controlled designs. Covers basic hydraulic theory with emphasis on the use of test equipment for diagnosis and in-car service. Each student is required to disassemble, overhaul, and assemble several automatic transmissions and transaxles.

2 lecture / 3 laboratory hours

AUT 226 Electrified Vehicles 3 credits

Prerequisites: AUT 114, AUT 122

Examination of high-voltage, electrified vehicles and special service techniques necessary to diagnose and repair electrical and mechanical faults. Hybrid, plug-in hybrid, and fully electric vehicle design and operation are explored, including use of special tools and equipment. Strong emphasis placed on personal and workplace safety.

2 lecture / 2 laboratory hours

AVI — AVIATION TECHNOLOGY

All flight training courses involving the use of an aircraft are taught in conjunction with Infinity Flight Group at Trenton-Mercer Airport.

AVI 101 Aerospace Development 3 credits
Historical approach to U.S. and international aviation development including man's first efforts to fly, the development of aircraft, modern growth of the aerospace industry and the impact of aviation and flight on mankind. 3 lecture hours

AVI 102 Aviation Transportation 3 credits
Prerequisite: ENG 101
Study of transportation systems and the aviation industry as they exist today. Topics include applicable government organizations, controls, and regulations. Airline organization, operation, management, and marketing as well as career opportunities are additionally examined. 3 lecture hours

AVI 105 Aviation Weather 3 credits
Analysis of aviation weather applicable to professional commercial pilots. Topics include weather hazards including thunderstorms, turbulence, wind shear, restrictions to visibility, icing, and hydroplaning. Weather services available along with details of coded weather reports, forecasts, weather charts and prognostic charts are explored and applied in class for flight planning and in-flight decision-making. 3 lecture hours

AVI 111 Flight Concepts 2 credits
Study of the principles of flight and air navigation, evolution of modern aviation (civil and military), and the basic physiological difficulties experienced in flight. [occasional offering]
2 lecture hours

AVI 112 Primary Flight 2 credits
Prerequisites: ENG 101, AVI 131, CSA 100, MAT 115
Corequisites: ENG 101, AVI 131, CSA 100, MAT 115
Provides flight training required to begin the cross-country training phase for the FAA private pilot certificate. Consists of 23 hours of flight training, 13.4 hours of preflight planning, and 10.5 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual).
1 lecture / 46.9 field study hours

AVI 113 Flight I 2 credits
Prerequisites: AVI 112
FAA-approved Medical; U.S. citizenship or TSA approval
Flight training required to complete the private pilot program by acquiring the aeronautical skills necessary to meet the FAA Airmen Certification Standards for the private pilot certificate. Consists of 30 hours of flight training, 10.4 hours of preflight planning, and 11.7 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual). 1 lecture / 52.1 field study hours

AVI 114 Flight II 2 credits
Prerequisites: AVI 113, AVI 132, AVI 131, ENG 101, MAT 115
Corequisite: AVI 132
Required flight training for the commercial pilot certificate for the student who has met the requirements for the private pilot certificate in AVI 113. Consists of 54 flight hours, 17.4 hours of preflight planning, and 15.5 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual).
1 lecture / 86.9 field study hours

AVI 131 Commercial Pilot I 3 credits
Essentials to pass the Federal Aviation Administration private pilot examination. Subjects include introduction to airplane systems, airports, communications and air traffic control, weight and balance, meteorology, Federal Aviation Regulations, aeronautical charts, radio navigation, Aeronautical Information Manual, flight computer, medical factors of flight and cross-country flying.
3 lecture hours

AVI 132 Commercial Pilot II 3 credits
Prerequisites: AVI 131, AVI 113, AVI 114, successful grade on FAA private pilot computer exam – airplanes
Corequisite: AVI 113 or AVI 114
Basic knowledge to pass the Federal Aviation Administration commercial pilot examination. Includes multiengine advanced performance control, advanced meteorology, advanced multi-engine airplane systems, advanced radio navigation, commercial pilot FARs, physiology of flight, environmental systems, flight planning and commercial flight maneuvers. 3 lecture hours

AVI 203 Aircraft Components 3 credits
Prerequisites: CMN 112, eligibility for college-level math and English
Basic maintenance procedures, personnel, and regulations studied in conjunction with the fundamental components and systems of aircraft. Topics include FARs, personnel, inspections, data, aircraft engines, airframes, systems, operating procedures and limitations, instruments, and aircraft structures. 3 lecture hours

AVI 208 Aviation Seminar 1 credit
Guest speakers explain their role in the industry and share insights concerning prerequisite experience, the interview process, and prospects for employment. 1 lecture hour

AVI 215 Aerodynamics 3 credits
Corequisite: MAT 115
Analysis of the fundamental theory and elements of applied aerodynamics provides the knowledge and background for safe and effective flying. Lab explores the basic concepts of airfoil angle of attack and lift/drag characteristics.
2 lecture / 2 laboratory hours

AVI 216 Flight V 4 credits
Prerequisites: current FAA Helicopter Commercial Certificate with Instrument Rating; FAA-approved Medical; U.S. citizenship or TSA approval
Students obtain (if not already possessing) a Private ASEL Certificate and acquire the aeronautical skills necessary to meet the requirements for the Commercial ASEL Certificate with an Instrument Airplane Rating. Consists of 82 hours of flight training, 111.5 hours of preflight planning, and 29.5 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual). **223 field study hours**

AVI 217 Flight VI 1 credit
Prerequisites: Airplane Single Engine Land Commercial and Airplane Instrument Rating; FAA-approved Medical; U.S. citizenship or TSA approval
Students develop the proficiency, knowledge, and skills to complete the required practical examination to add a multi-engine class rating to their single-engine commercial certificate and instrument rating. This training and assessment consist of 16.8 hours in a multi-engine aircraft, 13.4 hours of preflight planning, and 10 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual). **1 lecture / 40.2 field study hours**

AVI 231 Commercial Pilot III 3 credits
Prerequisites: AVI 132, MAT 115
Corequisite: MAT 115
Complements Flight III and Flight IV courses, with basic information to pass the Federal Aviation Administration Instrument Pilot Examination. Subject areas include altitude instrument flying, instrument flight charts, IFR clearances, and IFR regulations. **3 lecture hours**

AVI 240 Flight III 2 credits
Prerequisites: AVI 114, AVI 231
Corequisite: AVI 231
Continuation of flight training to obtain the commercial flight certificate, and beginning of instrument flight training. Students complete solo cross-country requirements. Consists of 60 hours of flight time, 9.5 hours of preflight planning, and 17.5 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual). **1 lecture / 87 field study hours**

AVI 241 Flight IV 2 credits
Prerequisite: AVI 240
Students develop a high degree of proficiency in single-engine commercial maneuvers and instrument flying. Students gain the necessary flight skills required to successfully complete the FAA Instrument Rating and Commercial Certificate as outlined in the FAA Instrument and Commercial Airmen Certification Standards. Consists of 48.8 flight hours, 17 hours of preflight planning, and 19.3 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual).
1 lecture / 85.1 field study hours

AVI 250 Airline Transport Pilot (ATP) Prep I 6 credits
Prerequisite: AVI 216
Students develop the proficiency, knowledge, and skills to complete the required day and night, VFR and IFR, cross-country hours for graduation to the ATP Prep II course. This training and assessment consist of 126 hours of flight training, 147 hours of preflight planning, and 21 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual).
294 field study hours

AVI 251 Airline Transport Pilot (ATP) Prep II 3 credits
Prerequisite: AVI 250
Students develop the proficiency, knowledge, and skills to complete the required day and night, VFR and IFR, cross-country hours for completion of the Airline Transport Pilot certificate program. This training and assessment consist of 51.5 hours of flight training, 85.6 hours of preflight planning, and 4 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual).
141.1 field study hours

AVI 251 Airline Transport Pilot (ATP) Prep II 3 credits
Prerequisite: AVI 250
Students develop advanced proficiency in single-engine commercial maneuvers, instrument flying, and multiengine operations, earning an FAA Instrument Rating, Commercial Certificate, and Multi-Engine Rating. Training includes 65.6 flight hours, 30.4 preflight planning hours, and 29.3 ground instruction hours. Additional fees apply (see Mercer County Community College's Aviation website).

BIO — BIOLOGY

BIO 100 Introductory Biology 3 credits
Prerequisite: ENG 034
Corequisite: MAT 037 or MAT 042 or proficiency in basic algebra
Selected fundamental principles of biology for students who have not had high school biology or who need a review before taking other courses in biology, horticulture and the life sciences. Topics include scientific inquiry, chemistry of living organisms, techniques of observation, data gathering and analysis. [Does not fulfill any requirements for the Biology A.S. degree.] **3 lecture hours**

GenEd SCIENCE

BIO 101 General BiologyI 4 credits
Prerequisites: high school biology or BIO 100; MAT 038 or MAT 044
Corequisite: ENG 101
Introduces fundamental concepts and principles of biology. Topics include biological chemistry, cell biology, metabolism and energy, cell reproduction, molecular biology, and inheritance. Investigative laboratory exercises develop skills in basic techniques and reinforce lecture material. Required for biology majors. **3 lecture / 3 laboratory hours**

GenEd SCIENCE

BIO 102 General BiologyII 4 credits
Prerequisite: BIO 101 with a minimum C grade
Introduces fundamental concepts, principles, and applications of biology. Topics include photosynthesis; plant structure, growth and reproduction; animal diversity, form and function; evolution; population ecology; community ecology; and ecosystem dynamics. Investigative laboratory exercises develop skills in basic techniques and reinforce lecture material. Required for biology majors.
3 lecture / 3 laboratory hours

GenEd SCIENCE

BIO 103 Anatomy and Physiology I 4 credits
Prerequisites: proficiency in basic algebra; high school biology or BIO 100
Corequisite: ENG 101
Systematic approach to the structure and function of the human body; general terminology and organization; cells and tissues; integumentary, muscular, skeletal, and nervous systems. Lab involves microscopy, the study of human anatomy via computer software and preserved specimens, and studies of physiological processes. [Does not fulfill any requirements for the Biology A.S. degree.]
3 lecture / 3 laboratory hours

GenEd SCIENCE

BIO 104 Anatomy and Physiology II 4 credits
Prerequisite: BIO 103 with a minimum C grade or permission of course coordinator
Continuation of BIO 103, covering digestive, circulatory, urinary, reproductive, respiratory, and endocrine systems. Lab includes cat dissection, human anatomy study via computer software, and quantitative studies of physiological processes. [Does not fulfill any requirements for the Biology A.S. degree.] **3 lecture / 3 laboratory hours**

GenEd SCIENCE

BIO 106 Human Anatomy 4 credits
Prerequisite: MAT 037 or MAT 042 or proficiency in basic algebra
Introduction to the human body with emphasis on terminology and body organization from the cellular level to organs systems. Topics include histology and skeletal, muscular, nervous, integumentary, digestive, respiratory, urinary, reproductive, circulatory and endocrine systems. (Designed for programs requiring a one-semester human anatomy course; does not satisfy requirements in biology or health programs.)
3 lecture / 2 laboratory hours

GenEd SCIENCE

BIO 113 Biological Science Concepts 3 credits
Prerequisite: MAT 037 or MAT 042 or proficiency in basic algebra
Survey of fundamental concepts, principles, and phenomena in biology. Provides a solid scientific basis on which opinions relating to issues in biology can be developed. Topics include diversity of life, cell biology, inheritance, biotechnology, and body processes. Lab exercises employ the scientific method and reinforce lecture concepts. Designed for the non-science major or as a foundational course. **2 lecture / 2 laboratory hours**

GenEd SCIENCE

BIO 114 Environmental Science Concepts 3 credits
Prerequisite: ENG 024 or equivalent proficiency
Exploration of the fundamental concepts of our local, regional, and global environment for the non-science major. Topics include aquatic and terrestrial ecosystems, biological and chemical principles relating to current environmental issues, basic ecological relationships which include plants and animals, ecological and technological concerns and advances as well as scientific analysis and solutions to current and future environmental problems.
3 lecture hours

GenEd SCIENCE

BIO 201 Microbiology 4 credits
Prerequisite: BIO 101 or BIO 103 with a minimum C grade or permission of course coordinator
Explores morphology, taxonomy, and metabolism of microbes with emphasis on fungi, protozoa, helminths, viruses and bacteria. Covers the role of microbes in nature, including biotechnology applications and medical importance; human defense mechanisms; and immunology. The lab develops techniques, reinforces certain lecture content, and introduces new material.
3 lecture / 3 laboratory hours

BIO 202 Woody Plants **4 credits**
Prerequisite: BIO 101 or OHT 101 with a minimum C grade or permission of course coordinator
Designed for ornamental horticulture, plant science, and biology majors. The lab consists of field studies stressing sight identification of both native and ornamental species. Covers the use of keys, as time permits. [Spring offering]
3 lecture / 3 laboratory hours

GenEd SCIENCE

BIO 203 Entomology **4 credits**
Prerequisite: BIO 101 or BIO 102 with a minimum C grade or permission of course coordinator
Intensive survey of the orders of insects, covering comparative anatomy, life cycles, physiology and economic importance. Includes management, preservation and identification methods. [Fall offering]
3 lecture / 3 laboratory hours

GenEd SCIENCE

BIO 204 Ecology **4 credits**
Prerequisite: BIO 101 with a minimum C grade
Corequisite: BIO 102
Fundamental concepts, theoretical principles, and practical applications of modern ecology: the study of the interactions of organisms with each other and their environment. Laboratory classes of this introductory course involve field work and research projects geared towards ecological application.
3 lecture / 3 laboratory hours

GenEd SCIENCE

BIO 208 Genetics **4 credits**
Prerequisite: BIO 101 with a minimum C grade or permission of course coordinator
Explores gene activity at the molecular and organismal levels. Topics include inheritance, chromosome structure and function, gene mapping, genomics, prokaryotic and eukaryotic gene expression, molecular biology, and population genetics. Includes lab exercises in biotechnology, bioinformatics, and classical genetics.
3 lecture / 3 laboratory hours

GenEd SCIENCE

BIO 215 Principles of Microbiology **3 credits**
Prerequisites: CHE 100 and BIO 104 or BIO 106
Designed for funeral education students, an introduction to the morphology, taxonomy, physiology, and control of microbes. Emphasizes those microbes which cause disease in humans and presents elements of organic chemistry and biochemistry.
3 lecture hours

BIO 217 Pathophysiology **3 credits**
Prerequisites: RN licensure or BIO 103 and BIO 104 or permission of course coordinator
Study of the fundamental changes in body physiology due to disease. Covers the basics of cell biology, inflammation, mechanisms of body defense, specific body systems, and common disorders, with emphasis on disease processes, manifestations, and treatment. **3 lecture hours**

BIO 293 Honors Research in Biology I **2 credits**
Prerequisites: BIO 102 and CHE 102, minimum 3.0 GPA in biology and chemistry courses, and faculty approval

BIO 294 Honors Research in Biology II **2 credits**

BIO 295 Honors Research in Biology III **2 credits**

BIO 296 Honors Research in Biology IV **2 credits**
Under the guidance of an area sponsor in an industrial or academic environment, students participate in a biology research project. Requires a written report and oral presentation to students and faculty at the conclusion of the project period. [Fulfills a technical elective requirement in the Biology and Chemistry programs.]
5 laboratory hours per week

BUS — BUSINESS

BUS 101 Introduction to Business **3 credits**
Corequisite: ENG 101
Survey course of the American business system. Topics include forms of business ownership, financing, economic impacts, human resource management, marketing, management, accounting, the role of government, international issues, workplace ethics, legal concerns, and social responsibility.
3 lecture hours

BUS 102 Introduction to Sports Management **3 credits**
Prerequisite: ENG 101 with a minimum C grade
Examination of issues impacting the world of sports and management. Topics include the complexity of leadership, group dynamics, strategic and master planning, risk management, current social issues, Title IX and their effects on professional, intercollegiate, youth and other areas of sport.
3 lecture hours

BUS 105 Business Writing **3 credits**
Intense coverage of grammar, punctuation, and word usage skills. Emphasizes realistic application of current usage and style in today's work world.
3 lecture hours

BUS 107 Business Law I 3 credits
Foundation course dealing primarily with contracts: the making of contracts, contractual elements, contracts in action, discharge of contracts, and remedies. Orientation to the legal system includes examination of law history and purpose. Uniform Commercial Code applications are stressed. 3 lecture hours

BUS 108 Legal Environment of Business 3 credits
Prerequisite: BUS 107 with a minimum C grade
The law of agency and employment and labor-management relations. Regulation of business organizations: sole proprietorships, partnerships, and corporations. Addresses property law, bailments, personal property, intellectual property, real property, landlord-tenant relationships, wills, estates and trusts, and the evolving role/impact of the global business environment. 3 lecture hours

BUS 109 Personal Finance 3 credits
Prerequisite: MAT 125
Basics of budgeting, buying, income tax, investments, home ownership, and insurance along with emphasis on wills and trusts. 3 lecture hours

BUS 111 Sports Law 3 credits
Examines legal issues that impact the world of sports and sports management. Affecting professional, intercollegiate and other areas of athletics, matters explored include those involving agencies, contracts, torts, crimes, gender, disabilities, antitrust, internationalism, drugs, intellectual property, and alternative dispute resolution.
3 lecture hours

BUS 202 Customer Orientation 3 credits
Explores the fundamentals of customer service, with focus on the "human" side of business and the importance of understanding and supporting those who depend on your business. Students develop core competencies necessary for providing excellent customer service, including an appreciation of diversity, developing loyalty, and dealing with customers. 3 lecture hours

BUS 205 Business Statistics I 3 credits
Prerequisite: MAT 146
Emphasis on the application of statistical inference in business and economics, with attention to descriptive statistics, probability theory, sampling distribution and inference statistics. Additionally includes testing of hypotheses and confidence intervals.
3 lecture hours

BUS 206 Business Statistics II 3 credits
Prerequisite: BUS 205 with a minimum C grade
Further testing of hypotheses and confidence intervals, plus coverage of regression analysis, chi-square, analysis of variance, and non-parametric measurements with use of several computer-based statistical packages. 3 lecture hours

BUS 209 Business Communications 3 credits
Prerequisite: ENG 101 with a minimum C grade or equivalent background
Practical strategies for developing a clear writing style: organizing ideas, choosing effective words and composing concise paragraphs that make writing clear and persuasive. Includes letters of inquiry, claim, collection, and adjustment as well as resumes and cover letters. Requires oral and written business report. 3 lecture hours

BUS 210 Principles of Management 3 credits
Prerequisite: ENG 101 with a minimum C grade
Provides a framework for managing an organization, including discussion of the key management functions of planning, organizing, staffing, influencing and controlling, with emphasis on ethics and international management issues.
3 lecture hours

BUS 211 Funeral Service Internship I 2 credits

BUS 212 Funeral Service Internship II 2 credits

BUS 213 Funeral Service Internship III 2 credits

BUS 214 Funeral Service Internship IV 2 credits
Prerequisite: eligibility determined by Director of Funeral Service Programs and is limited to students who are registered as interns with the New Jersey State Board of Mortuary Science or student trainees with the Pennsylvania State Board of Funeral Directors
These sequential courses in the Funeral Service Preparatory program combine business cooperative education (75 percent) and professional work (25 percent) in a cooperating funeral home, where students work under the direction of a licensed funeral director for 16 hours each week. Courses are supervised by the Director of Funeral Service Programs, a field supervisor, and the sponsoring funeral director.
16 work experience / 1 seminar hour per week

BUS 225 Employee Motivation and Leadership 3 credits
Prerequisite: ENG 101 or equivalent background
Draws together cutting-edge theory and significant achievements in the study of work motivation and leadership, equipping students for success in the business world as team leaders and members. From a workshop format incorporating practical real-world applications and examples, students learn the theoretical importance of leadership principles, ethics, and empowering and developing others. 3 lecture hours

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

BUS 230 Global Environment of Business 3 credits
Prerequisite: ENG 101 with a minimum C grade
A survey course introducing the challenges confronting global business due to socio-political, economic, and cultural environments, including a discussion of ethics as it relates to these factors. Students are expected to read about topics such as political economy, cultural variation, trade theory, the international monetary system, foreign investment, and foreign exchange markets.
3 lecture hours

BUS 239 Entrepreneurship 3 credits
Prerequisites: ACC 106 or ACC 111 or permission of instructor; ENG 101 with a minimum C grade
Exposes students to the skills and resources necessary to become a successful entrepreneur. Topics include feasibility studies, cash management, business plans, pricing strategies, ethical issues, financing strategies, and financial statements.
3 lecture hours

BUS 240 Human Resource Management 3 credits
Prerequisite: ENG 101 with a minimum C grade
Examination of human resource management including determination of manpower requirements, the employment process, wage and salary administration, insurance, safety, discipline, and employee relations. Related topics include morale, research, and preparation for collective bargaining.
3 lecture hours

BUS 244 Introduction to Supply Chain Management 3 credits
Prerequisites: ACC 106 or ACC 111; ACC 205 or ACC 112; ENG 101 with a minimum C grade; IST 101, IST 102, or CIS 175; MAT 125 or advisor approved equivalent
A survey course designed to introduce students to the integrated activities of the supply chain, with emphasis on the flow of products, information, cash, and demand. Special topics include the global dimension, the role of technology, and strategic challenges.
3 lecture hours

CHE — CHEMISTRY

CHE 100 Introductory Chemistry 3 credits
Prerequisite: MAT 037 or MAT 042 or proficiency in basic algebra
Selected fundamental principles of general chemistry for students who have not had high school chemistry and for those who need a review before taking other chemistry courses. [Does not include laboratory instruction and does not fulfill any requirements in the Chemistry program.]
3 lecture hours

GenEd SCIENCE

CHE 101 General Chemistry I 4 credits
Prerequisites: high school chemistry or CHE 100; MAT 038 or MAT 044
Corequisite: ENG 101
Basic concepts and theoretical principles of modern chemistry. Topics include stoichiometry; atomic theory and the structure of matter; periodic table; chemical bonding; kinetic-molecular theory and the states of matter; gas laws; solutions; oxidation-reduction; and acid-base systems. Lab work introduces the use of computers for data collection and analysis.
2 lecture / 1 recitation / 3 laboratory hours

GenEd SCIENCE

CHE 102 General Chemistry II 4 credits
Prerequisite: CHE 101 with a minimum C grade or permission
Corequisite: MAT 146 or approved equivalent
Theoretical and practical aspects of kinetics; simple and ionic chemical equilibria; thermodynamics; spectrophotometry; electrochemistry; nuclear chemistry; and the major families of chemical elements with emphasis on the transition elements. Lab work includes qualitative cation and anion analysis plus additional computer applications for data collection and analysis.
2 lecture / 1 recitation / 3 laboratory hours

GenEd SCIENCE

CHE 106 Chemical Science Concepts 3 credits
Prerequisite: MAT 037 or MAT 042 with a minimum C grade
Fundamental topics in chemistry and biology are introduced utilizing forensics to explore basic science concepts. Topics include general, organic, and biochemistry, and general and molecular biology. Lab experiments integrate case-study analyses and modern instrumentation with techniques in enzymology, chromatography, microscopy, fingerprinting, DNA analysis, and serology. Prepares the student for informed engagement in society by providing scientific knowledge on which attitudes and opinions can be developed.
2 lecture / 2 laboratory hours

GenEd SCIENCE

CHE 107 General and Physiological Chemistry 4 credits

Prerequisites: high school chemistry or CHE 100; MAT 037 or MAT 042 or equivalent

Introduction to basic chemical and physical principles and their applications to life processes. Lab exercises illustrate these principles and the behavior of physiologically significant materials.

2 lecture / 1 recitation / 2 laboratory hours

GenEd SCIENCE

CHE 201 Organic Chemistry I 5 credits

Prerequisite: CHE 102 with a minimum C grade

Theoretical principles of reaction mechanisms and the synthesis of important classes of organic compounds. Topics include stereoisomerism; alcohols; ethers; nucleophilic substitution; elimination reactions; and instrumental methods. Lab work introduces the synthesis, purification, separation and identification of organic compounds.

3 lecture / 4 laboratory hours

GenEd SCIENCE

CHE 202 Organic Chemistry II 5 credits

Prerequisite: CHE 201 with a minimum C grade

Follows CHE 201 with increased emphasis on spectroscopy and mechanisms. Topics include aromatic compounds; electrophilic substitution reactions; carbonyl chemistry; carboxylic acid derivatives, amines, carbohydrates and proteins. Lab work includes methods of synthesis, purification, and spectroscopic identification of organic compounds.

3 lecture / 4 laboratory hours

CHE 293 Honors Research in Chemistry I 2 credits

Prerequisites: BIO 102 and CHE 102, minimum 3.0 GPA in biology and chemistry courses, and faculty approval

CHE 294 Honors Research in Chemistry II 2 credits

CHE 295 Honors Research in Chemistry III 2 credits

CHE 296 Honors Research in Chemistry IV 2credits

Under the guidance of an area sponsor in an industrial or academic environment, students participate in a chemistry research project. Requires a written report and oral presentation to students and faculty at the conclusion of the project period. [Fulfills a technical elective requirement in the Biology and Chemistry programs.]

5 laboratory hours per week

CHI — CHINESE

Note: Students who have taken two or more years of a foreign language, and have done so in the last two years, should begin that language at the 200 level or switch to a new language. If there is doubt, placement will be determined by testing or consultation with the academic division.

GenEd HUMANITIES

CHI 101 Beginning Chinese I 3 credits

Spoken communication in Mandarin Chinese is the goal and means of instruction. Initial weeks are dedicated to studying the sound and writing system. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced.

3 lecture hours

GenEd HUMANITIES

CHI 102 Beginning Chinese II 3 credits

For students who either completed CHI 101 or have otherwise gained elementary knowledge of Mandarin Chinese. Spoken communication in Mandarin is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced.

3 lecture hours

GenEd HUMANITIES

CHI 102 Beginning Chinese II 3 credits

For students who either completed CHI 101 or have otherwise gained elementary knowledge of Mandarin Chinese. Spoken communication in Mandarin is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced.

3 lecture hours

GenEd HUMANITIES

CHI 102 Beginning Chinese II 3 credits

For students who either completed CHI 101 or have otherwise gained elementary knowledge of Mandarin Chinese. Spoken communication in Mandarin is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced.

3 lecture hours

CIS — COMPUTER INFORMATION SYSTEMS

CIS 105 Excel Basics 1 credit
Prerequisites: ENG 033, MAT 037
Learn how to increase productivity by designing and organizing worksheets to solve problems. Students acquire a working knowledge of Excel with emphasis on formulas, charts, data analysis, printing, managing large worksheets, and integrating Excel charts and worksheets into Word documents and PowerPoint presentations.
1 lecture / 1 laboratory hours

CIS 173 PC Applications: Database 3 credits
Prerequisite: COS 101, COS 102, IST 101, or equivalent proficiency
Students acquire a working knowledge of Access, a relational database, with emphasis on creating tables, queries, reports, and forms.
2 lecture / 2 laboratory hours

CIS 175 PC Applications: Spreadsheets 3 credits
Prerequisite: IST 101 or equivalent proficiency
Students acquire a working knowledge of Excel with emphasis on formulas, charts, and managing worksheets and lists.
2 lecture / 2 laboratory hours

CIV — CIVIL ENGINEERING TECHNOLOGY

CIV 101 Surveying I 3 credits
Corequisites: DRA 190 or divisional permission; ENT 116 or prior drafting experience; MAT 115 or approved equivalent Introduces the three basic surveying tools – the tape, level, and transit/theodolite – along with proper field procedures for basic surveying. These include taking field notes, taping and EDM, leveling, bearings and azimuths, topography, and mapping – the latter including an introduction to computer-aided design.
2 lecture / 3 laboratory hours

CIV 102 Surveying II 3 credits
Prerequisite: CIV 101 or permission of instructor
Application of the fundamentals and techniques achieved in elementary surveying to solve additional problems in vertical curves, horizontal curves, traversing computations and profiles. Computations include bearings and azimuths, latitudes and departures, areas, and use of the planimeter. Applies AutoCAD and land development software, plus "Total Station" survey equipment for traversing, radial stakeout, and layout of horizontal curves. 2 lecture / 3 laboratory hours

CIV 103 Statics 3 credits
Prerequisites: MAT 146 with a minimum C grade; one semester of high school or college physics
Corequisite: MAT 151
Calculus-based introduction to the basic principles of engineering statics, including terminology and types of force systems, for engineering science students. Topics include the resultant force of a force system; distributed and concentrated forces; force systems in equilibrium, trusses, frames and machines; friction; centroids; and moments of inertia.
3 lecture hours

CIV 105 Introduction to Engineering 1 credit
Provides an introduction to the practice of engineering including disciplines, work environment, and competencies. Outlines project management topics such as scope, budget, schedule, effective communication, and proposal preparation. Also includes career planning topics such as resumes, interviews, internships, transferring to four-year institutions, and professional licensure.
1 lecture hour

CIV 106 Mechanics 3 credits
Prerequisite: MAT 115 or divisional permission
Introduction to the basic principles of engineering mechanics, including terminology and types of force systems, for engineering technology students. Topics include the resultant force of a force system, distributed and concentrated forces, force systems in equilibrium, trusses, frames and machines, friction, centroids, and moments of inertia. 3 lecture hours

CIV 109 Engineering Analysis and Problem Solving 4 credits
Corequisites: CIV 103
This course introduces engineering analysis for structural and hydraulic systems. Key topics include fluid mechanics, steel and concrete component design, and site surveying. Students gain hands-on experience through lab experiments and reports covering submerged forces, material capacity, and topographic mapping, preparing them for professional design practice. 3 lecture / 2 laboratory hours

CIV 216 Highway Engineering 3 credits
Prerequisites: MAT 115 and ENT 116
Corequisites: CIV 102, DRA 190, or divisional permission
Explores the planning, design, construction, and characteristics of highways and city streets, including layout, traffic requirements, safety and control, drainage, subgrade structure, base courses, and surface pavements. Problems to be solved include geometric design, traffic volume, channelization, and hydrology. Lab projects involve roadway designing. [Spring offering] 2 lecture / 2 laboratory hours

CIV 223 Fluid Mechanics 4 credits
Prerequisite: MAT 115
Introduction to the field of fluid mechanics. Topics include the properties of fluids, buoyancy, basic fluid power, closed pipe flow, open channel flow, forces due to fluids in motion, flow measuring devices, and the energy balances of fluid systems. Lab experiments (requiring written reports) on non-compressible fluids illustrate the theoretical concepts. [Fall offering] **3 lecture / 3 laboratory hours**

CIV 227 Structural Steel Design 3 credits
Corequisite: CIV 229
Application of basic principles of material mechanics to the analysis and design of structural steel members that occur most commonly in bridge and building construction. Requires thorough knowledge of the American Institute of Steel Construction Code as well as orderly computational procedures. Lab work involves the design of a building. [Fall offering] **2 lecture / 3 laboratory hours**

CIV 228 Reinforced Concrete Design 3 credits
Prerequisite: CIV 227 or DRA 217
Examines the design of basic reinforced concrete structural members including rectangular beams, slabs, columns, footings, and retaining walls. Requires thorough knowledge of the ACI Standard Code. Covers field inspection procedures. Lab projects involve designing, mixing, and evaluating concrete cylinders and beams, adhering to alternate design and strength design approaches. [Spring offering] **2 lecture / 3 laboratory hours**

CIV 229 Mechanics of Materials 4 credits
Prerequisite: CIV 106 with a minimum C grade
With an introduction to engineering materials and their mechanical properties, examines strains that occur in elastic bodies subjected to direct and combined stresses, shear and bending moment diagrams, deflections of beams, and stresses due to torsion. Lab testing involves various materials such as cast iron, steel, brass, aluminum, and wood to determine their physical properties and to demonstrate various testing techniques. [Fall offering]
3 lecture / 3 laboratory hours

CIV 230 Mechanics of Solids 4 credits
Prerequisites: CIV 103 and MAT 151 with a minimum C grade
Calculus-based introduction to engineering materials and their mechanical properties, examining strains that occur in elastic bodies subjected to direct and combined stresses, shear and bending moment diagrams, deflections of beams, and stresses due to torsion. Lab testing involves various materials such as cast iron, steel, brass, aluminum, and wood to determine their physical properties and demonstrate various testing techniques.
3 lecture / 3 laboratory hours

CMN — COMMUNICATION

CMN 101 Mass Media 3 credits
Corequisite: ENG 101
Survey of the growth and development of books, newspapers, magazines, film, radio, television, cable, the Internet, and new media delivery systems. Analysis of the mass media's impact on society and individuals, and whether the media effectively fulfill their functions as deliverers of information, persuasion, entertainment, and culture.
3 lecture hours

CMN 102 Media Issues and Ethics 3 credits
Prerequisite: ENG 101 with a minimum C grade
An examination of current issues and ethical dilemmas in mass media such as sensationalism, press censorship, violence, political coverage, rights of privacy, and photo manipulation. The implications of recent developments in mass media and current regulation of broadcast and cable media are discussed. Students read, evaluate and analyze media ethical case studies.
3 lecture hours

CMN 103 Community Reporting 3 credits
An experiential learning course in which students build the skills of ethical and practical reporting through coverage of community stories in the field. Students learn about the forces that drive public perception of the media and how solutions focused reporting can increase civic engagement and reduce political polarization.
2 lecture / 2 laboratory hours.

GenEd HUMANITIES

CMN 107 Cinema 3 credits
Study of artistic achievement in the film medium from the point of view of the director (author). Classic and contemporary feature films are viewed, analyzed and discussed, including the works of such directors as Griffith, Eisentein, Chaplin, Hitchcock, Bergman, DeSica, and Welles.
3 lecture hours

GenEd COMMUNICATION

CMN 111 Speech: Human Communication 3 credits
Prerequisite: eligibility for placement in ENG 101
Exploration of the fundamental elements, characteristics, and processes of communication, including communicating in a multicultural society, interpersonal, intrapersonal, as well as small group contexts. Oral presentation experiences are heavily integrated throughout the course with a focus on public speaking design and delivery.
3 lecture hours

GenEd COMMUNICATION

CMN 112 Public Speaking 3 credits
Corequisite: ENG 101
Introduction to principles and practice of audience-centered, credible, confident messages for diverse audiences. Includes a variety of presentations: special occasion, personal experience, impromptu, panel, informative, and persuasive. Special focus on communication anxiety management, organizational patterns, supporting research, visual aids, and dynamic delivery. Sustained reading, writing, and testing are also part of the course. 3 lecture hours

CMN 122 Organizational Communication 3 credits
Prerequisite: ENG 101
Study of the knowledge, skills, sensitivity, and values associated with the variety of communications within and between organizations. An exploration of various methods, channels, and audiences of organizational communication in the corporate world.
3 lecture hours

CMN 125 Public Relations 3 credits
Prerequisite: ENG 101 with a minimum C grade
Comprehensive study of public relations including identifying and reaching internal and external publics, dealing with print and electronic media, advertising, printing, direct mail, and preparing a public relations plan and budget. Also involves the writing of news releases, public service announcements, and advertising copy. [occasional offering]
3 lecture hours

CMN 131 Journalism I 3 credits
Introduction to the news media with particular emphasis on the newspaper and news writing, the history of the press, and controversial issues facing the press. Active participation with the student paper, The College Voice, is integral.
3 lecture hours

CMN 141 Introduction to Television Production 3 credits
Basic theory and operation of TV production equipment including camera, switcher, character generator, prompter, audio console, and lighting. Following study of studio procedure, students plan, produce, write, and direct several short video productions. 2 lecture / 2 studio hours

CMN 142 Introduction to Field Production 3 credits
Production of programming with complete formats such as news, interview, music, drama, and fashion. Students plan, produce, write, and direct 15-minute interview/demonstration programs.
2 lecture / 2 studio hours

CMN 144 Screenwriting 3 credits
Prerequisites or Corequisites: ENG 101, ENG 102
Aimed at the conception, planning and writing of screenplays. Through a series of writing exercises, scenes, short scripts and treatments, the student is expected to complete a 20-page short film script. The basics of character development, narrative, structure, texture, genre, and the ability to visualize in writing are explored.
2 lecture / 2 laboratory hours

CMN 146 Social Media Technologies 3 credits
Extensive exploration of current social media technologies, utilizing the Mac platform, for storytelling and narrative purposes. With emphasis on usability, management and distribution, topics include multimedia development and design; the media elements of text, graphics, sound and video; and trends in emerging hardware and software. Multimedia projects demonstrate technical understanding and coherent narratives.
2 lecture / 2 laboratory hours

CMN 147 Introduction to Story 3 credits
Aimed at the analysis, deconstruction, and construction of story. Analyzing a series of films, television shows, graphic novels, video games and transmedia properties, students explore the ba sics of character development, narrative, arc, structure, and genre.
2 lecture / 2 laboratory hours

CMN 148 Introduction to Editing 3 credits
Covers the art of composing space and time through the arrangement and assembly of images and sounds, including basic concepts of editing, storytelling, and emotion. Students develop their editing skills utilizing current and professional non-linear editing software and tools.
2 lecture / 2 laboratory hours

CMN 151 Introduction to Radio 3 credits
An orientation to commercial radio in the United States. Topics include historical development, ownership, management, sales, programming, promotion, commercial and news writing, audience measurement, and government regulation. Students learn the hands-on technical skills necessary to operate broadcast consoles and audio editing applications. Production projects include newscasts, commercials, and a weekly music program.
2 lecture / 2 studio hours

CMN 153 Digital Audio Production I 3 credits
Students practice and develop audio production techniques used in broadcasting and other commercial applications. Theory of audio fundamentals combines with lab exploration of digital editing, digital multitracking, digital music creation, synchronizing audio with video. Students write and/or produce commercials, documentaries and short soundtracks for video and other entertainment venues. 2 lecture / 2 studio hours

CMN 157 Podcasting 3 credits
Exploration of podcast production with an emphasis on content creation. Analysis of existing podcasts assist students in formulating subject material for their own podcast. Defining an audience, aligning content, writing and producing the podcast, evaluating and defining areas for improvement are all considered as the student works to produce several episodes of a consistent podcast. Podcast hosting and distribution methods also addressed. 2 lecture / 2 studio hours

CMN 201 Persuasion and Propaganda 3 credits
Prerequisite: CMN 111 or CMN 112
Inquiry into the forces of persuasion and propaganda as they exist in a technological society and how they influence beliefs, attitudes and actions.
3 lecture hours

CMN 211 Interpersonal Communication in Human Relations 3 credits
Prerequisite: CMN 111 or CMN 112
Combining theory and practice, examines the nature and skills of interpersonal communication. Emphasizes the uniqueness of interpersonal communication as opposed to other forms of human communication. 3 lecture hours

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

CMN 214 Issues in Intercultural Communication in the U.S. 3 credits
Examines communication that bridges diverse cultures, values and realities. Explores racial, sexual, and class identities and the impact of privilege on the ability to relate to others. Develops effective communication skills for addressing obstacles to global citizenship. 3 lecture hours

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

CMN 215 Communication and Gender 3 credits
Prerequisite: ENG 101 or equivalent English skills
Critically analyzes issues of gender and communication. Examines theoretical perspectives used to explain gender phenomena, gender socialization, male and female interactions and stereotypes, with an emphasis on improving communication skills.
3 lecture hours

CMN 231 Journalism II 3 credits
Addresses the various kinds of newswriting (straight news, features, interpretative, editorial), editing, and the techniques of reporting (interviewing; surveys; coverage of events, meetings, speeches). Actual newspaper production aspects including layout, photojournalism, and graphics are experienced through practical work on the student paper, The College Voice. 3 lecture hours

CMN 242 Advanced Film Production 3 credits
Prerequisites: CMN 241, CMN 243
Advanced television students enhance knowledge and skills while writing, editing, producing and marketing a short film or documentary. Students apply pre-production, production, and post-production skills with the goal of competing in a television program film festival.
2 lecture / 2 studio hours

CMN 243 Cinematography 3 credits
Prerequisites: CMN 141, CMN 142
Covers directing, lighting, and camera work through lecture and text materials. Includes an overview of cinematic production with attention to the art of lighting and cinematography. Additionally introduces steadicam camera technique, camera lens systems, cinema lighting techniques, and hi-definition image acquisition.
2 lecture / 2 studio hours

CMN 246 Social Media Management 4 credits
Examines social media as a strategic marketing tool involving planning, budgeting, content creation, measurement and analysis, crisis communication, and ethical considerations. Explores careers and best practices in social media management.
4 lecture hours

CMN 250 Announcing for Media 3 credits
Students explore, practice and develop announcing techniques used in broadcasting and other media applications. Practical assignments provide training for a variety of professional roles such as radio disc jockey, talk show host, podcast host, broadcast journalist, and voice-over announcer. Students produce commercials, public service announcements, interview programs, and corporate/industrial voice-overs and host a radio show.
2 lecture / 2 laboratory hours

CMN 252 Applied Radio Programming and Production 3 credits
Prerequisites: CMN 153 and CMN 250 with a minimum C grade
Study of the development and nature of current radio formats, programming philosophies, and group ownership. Students analyze and critique current radio formats and create a commercially-viable format of their own. Students apply advanced production techniques to produce station "imagers," format demos, and an audition CD suitable for entry-level positions. 2 lecture / 2 studio hours

CMN 253 Digital Audio Production II 3 credits
Prerequisite: CMN 153
An overview of multitrack recording techniques using state-of-the-art digital audio workstations. Topics include mastering techniques, digital signal processing, auto-tune, session management, and techniques for real-time and processed audio plug-ins including reverb, delay, sampling, automation, MIDI sequencing, and virtual instruments. Students produce multilayered recordings using live talent in a studio environment.
2 lecture / 2 laboratory hours

CMN 254 Live Sound Reinforcement 3 credits
Prerequisite: CMN 153
Basic principles of the behavior of sound in various environments, with emphasis on signal flow, acoustics, sound reinforcement setups and installation, signal processing, as well as microphone selection and placement. Includes setting up sound systems and mixing live music. Topics include microphones, recording equipment, control consoles, reproduction techniques, amplification, distribution, loudspeaker systems, frequency response, decibels, and dynamic range.
2 lecture / 2 laboratory hours

CMN 255 Sound Design for the Entertainment Industry 3 credits
Prerequisites: CMN 153, CMN 254
Examines audio production techniques, technologies, and aesthetics related to the development of a compelling soundtrack for theatre, television, radio or the Internet. Through training in all phases of digital sound recording, editing and mixing, students work with location and field recording equipment and use advanced editing and mixing techniques associated with digital audio workstations.
1 lecture / 4 laboratory hours

CMN 256 Digital Audio Production III 3 credits
Prerequisite: CMN 253
Continues the study of multitrack recording techniques using state-of-the-art digital audio workstations. Topics include advanced mastering techniques, digital signal processing, auto-tune, session management, techniques for real-time and processed audio plug-ins including reverb, delay, sampling, automation, MIDI sequencing, and virtual instruments. Students produce multiple multilayered recordings using live talent in a studio environment acting as a producer, engineer, mixer, and mastering engineer.
2 lecture / 2 laboratory hours

CMN 275 TV Technology and Culture 3 credits
Prerequisite: ENG 102
Critical survey of the key areas of television studies: technology and media ownership, textual analysis, and audiences. Topics include federal regulations, audience measurement, distribution and programming strategies, and cultural theory. Promotes industry networking skills through field trips, meeting with media professionals, and creating a resume/portfolio. 3 lecture hours

CMN 285 Special Studies in Television Production 3 credits
Prerequisites: CMN 290, minimum 3.0 GPA, and divisional permission
Opportunity for students who have completed all regular television writing and production courses to continue their studies at an advanced level. Individual students and faculty develop a project contract that sets forth objectives, standards of quality, evaluation guidelines, and deadlines. [occasional offering]

CMN 286 Special Studies in Radio Production 3 credits
Prerequisites: CMN 151, CMN 153, CMN 161, CMN 250, CMN 253, minimum 3.0 GPA, and divisional permission
Opportunity for students who have completed all regular radio writing and production courses to continue their studies at an advanced level. Individual students and faculty develop a project contract that sets forth objectives, standards of quality, evaluation guidelines, and deadlines. [occasional offering]

CMN 287 Special Studies in Communication 3 credits
Prerequisites: second-year standing as a Communication program major at MCCC and permission of the program coordinator; minimum 3.0 GPA
Opportunity for students who have completed all regular communication and communication writing courses to continue their studies at an advanced level. Individual students and faculty develop a project contract that sets forth objectives, standards of quality, evaluation guidelines, and deadlines.

CMN 290 Internship: Communications 3 credits
Prerequisites: second-year standing and coordinatorapproval
Work experience at a radio station, TV station, cable system, industrial or instructional TV facility, or other allied business. 1 lecture / 180 work experience hours

COS — COMPUTER SCIENCE

GenEd TECHNOLOGY

COS 101 Introduction to Computer Science 4 credits
Prerequisite: MAT 037 (or MAT 037A and 037B) or proficiency in basic algebra
Introduces both majors and non-majors to the concepts and topics of computer science, including computer architecture, algorithm analysis, operating systems, and programming languages. Students develop algorithmic thinking and abstraction using a 3-D animation programming language and MATLAB, a numerical programming tool for scientists and engineers. 3 lecture / 2 laboratory hours

GenEd TECHNOLOGY

COS 102 Computer Science I – Algorithms and Programming 4 credits
Prerequisite: COS 101 or IST 108 or IST 109 or IST 120 or equivalent
Algorithm design and object-oriented programming in the Java language. Topics include data representation, input/output, control structures, exception handling, classes, methods, inheritance, polymorphism, encapsulation, overloading and dynamic memory. 3 lecture / 2 laboratory hours

COS 116 Introduction to Data Science 4 credits
Prerequisite: IST 110 or equivalent
Co-requisite: MAT 151
Students learn the fundamentals of programming and data science. Through hands-on projects, students are introduced to the complete data science workflow from data collection through data visualization, analysis, and insight generation. Students are also introduced to machine learning concepts and ethical considerations. 3 lecture/ 2 laboratory hours

COS 204 Discrete Mathematical Structures 4 credits
Prerequisite: MAT 151 or equivalent
Primarily intended for Computer Science majors, covers wide variety of topics serving as the mathematical framework for the design and analysis of algorithms. Topics include induction and recursion, relations, functions, sets, propositional logic, Boolean algebra, grammars, permutations and combinations, and finite state machines.
4 lecture hours

COS 210 Computer Science II – Data Structures 4 credits
Prerequisites: COS 102 or equivalent and MAT 146 or MAT 151
Study of advanced programming topics focused on logical structures of data as well as the design, implementation and analysis of algorithms operating on these structures. Topics include linked lists, stacks, trees, queues, graphs and analysis of efficiency. Also covers searching, sorting and hashing techniques.
3 lecture / 2 laboratory hours

COS 231 Fundamentals of Computer Architecture 4 credits
Prerequisites: COS 102 or equivalent and MAT 146 or MAT 151
Explores the levels of organization in digital computers: logic circuit design, integrated circuits, and assembly language coding.
3 lecture / 2 laboratory hours

CSJ — CRIMINAL JUSTICE

CRJ 101 Introduction to the Criminal Justice System 3 credits
Overview of the systems of criminal justice in the United States, including a survey of the agencies for the administration of justice and the relationships among them. 3 lecture hours

CRJ 102 Police in the Community 3 credits
Study of the relationship between the police and the public they serve with particular emphasis on ethical standards, human relations, civil rights, and community service. 3 lecture hours

CRJ 103 Introduction to Corrections 3 credits
Study of the relationship between the correction officer and the prisoner including the history of corrections, the rights of the confined, parole and work release, and the philosophies of rehabilitation and punishment. 3 lecture hours

CRJ 104 Introduction to Security 3 credits
Introduction to the historical, philosophical, and legal bases of the security field. Examines all aspects of private security systems and functions, including the technology of security and the role of security in different organizational settings. [occasional offering] 3 lecture hours

CRJ 105 Criminology 3 credits
In-depth analysis and evaluation of criminal behavior including street crime, organized crime, and occupational crime. Students learn to investigate, categorize, and describe the theories of criminality and social control. 3 lecture hours

CRJ 202 Criminal Law 3 credits
Examines the evolution and development of criminal laws as well as the nature of crime, basic principles of criminal law, plus defenses and court presentations. 3 lecture hours

CRJ 206 Police Administration 3 credits
Examines the contemporary law enforcement agency and its functions, structure, and operational techniques; implications of generalized and specialized units; development of resources by time and area of function; analysis of line, staff, and auxiliary functions; and current issues facing today's police agencies. 3 lecture hours

CRJ 207 Criminal Investigation 3 credits
The strategies, techniques, and methods employed in criminal investigations – at the crime scene, follow-up investigation, modus operandi, sources of information, and interrogation. 3 lecture hours

CRJ 211 Community Corrections 3 credits
Examines the major types of community-based correctional alternatives such as fines, community service, drug courts, probation, day reporting centers, halfway houses, parole, and other intermediate sanctions. Covers correctional law and management, controversies, political pressures, and emerging trends. 3 lecture hours

CRJ 212 Juvenile Justice **3 credits**
Overview of the major issues in the field of juvenile justice, including causes of delinquency and the development of modern treatment methods. Emphasis on the delinquent's relationships with family, school, peers, and the juvenile justice system.
3 lecture hours

CRJ 299 Cooperative Education – Criminal Justice **3 credits**
Prerequisites: sophomore status; CRJ 101; CRJ 206 or CRJ 103; divisional permission
Exposure to the philosophy, goals, and daily operations of a criminal justice agency. Through supervised work, the student experiences the roles of criminal justice employees and evaluates their responsibilities. Designed for the student interested in the realistic application of criminal justice theory to the justice system.
1 lecture / 180 work experience hours

CSB — COLLEGE SUCCESS FOR BUSINESS

CSB 100 College Success and Wellness for Business **2 credits**
A comprehensive orientation to the college experience providing academic and personal wellness management tools geared toward students studying in business-related disciplines. Topics include general study skills, academic technology, introduction to college resources and services, an exploration of business careers, financial literacy, and general wellness. 2 lecture hours

CSH — COLLEGE SUCCESS FOR HEALTH PROFESSIONS

CSH 100 College Success for Health Professions **2 credits**
A complete orientation to the college experience providing academic, interpersonal, and wellness strategies geared toward students in pursuit of a health professions related degree. Topics include study skills, soft skills development, and investigation of health professions related careers. Students also apply strategies to promote optimal physical and emotional wellness.
1 lecture / 1 laboratory hours

CSW — COLLEGE SUCCESS AND WELLNESS

CSW 100 College Success and Personal Wellness **2 credits**
A comprehensive orientation to the college experience providing academic and personal wellness management tools. Topics include general study skills, academic technology, introduction to college resources and services, and healthy living.
2 lecture hours

CSA — COLLEGE SUCCESS FOR AVIATION

CSA 100 College Success for Aviation **2 credits**
An orientation to the college experience providing academic and personal wellness tools geared toward students enrolled in Aviation Flight Technology. Topics include study skills, college resources, and an introduction to basic aviation skills including Pre-flight actions, radio communication and one hour of flight time in a training aircraft.
2 lecture hours

DAN — DANCE

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

DAN 101 Introduction to Dance and Culture **3 credits**
Prerequisite: ENG 101 or permission of instructor
Introductory study of dance as an art form, investigating the impact of gender, politics, religion, and culture on how dance is perceived. Develops a fuller appreciation of how dance has been used over the course of human history in western and non-western cultures to communicate human needs and to express what words cannot communicate. [Fall and Spring offering] 3 lecture hours

DAN 102 Ballet I **2 credits**
Introduces traditional or classic ballet terminology, forms, and techniques. Emphasizes body alignment and physical skill needed for proper classical ballet movements. [Spring offering]
1 lecture / 2 studio hours

DAN 103 Modern Dance I **2 credits**
Introduces the techniques and motor skills of modern dance, including basic body skills, placement, alignment, and continuity. [Fall offering]
1 lecture / 2 studio hours

DAN 105 Hip Hop and Jazz I 2 credits
Covers not only the history of these highly related forms, but the fundamental dance techniques of both emphasizing the syncopated rhythms and isolations of the body at a beginning level, while encouraging individual style. [Fall and Spring offering] 1 lecture / 2 studio hours

DAN 112 Ballet II 2 credits
Prerequisite: DAN 102 or permission of instructor
Study of ballet technique on an intermediate level. [Spring offering] 1 lecture / 2 studio hours

DAN 113 Modern Dance II 2 credits
Prerequisite: DAN 103
Study of modern dance techniques on an intermediate level, and an introduction to repertory. [Fall offering] 1 lecture / 2 studio hours

DAN 115 Hip Hop and Jazz II 2 credits
Prerequisite: DAN 105 or permission of instructor
Study of commercial forms of dance at the intermediate level. With emphasis on more challenging syncopated rhythms, exercises are led to help the student develop a personal style. More nuanced exercises serve expressing emotion and isolations of the body. Additionally, this course exposes students to the history of Jazz and Hip Hop. [Fall and Spring offering] 1 lecture / 2 studio hours

DAN 116 Studio Dance Technique I 3 credits

DAN 117 Studio Dance Technique II 3 credits

DAN 118 Studio Dance Technique III 3 credits

DAN 119 Studio Dance Technique IV 3 credits
A sequence of courses required of all students in the dance program, provides an intensive approach to skill development, discipline, and knowledge for mastery of the three concert dance styles: ballet, jazz, and modern. Daily technique classes cater to specific needs and abilities. Related issues of career planning, personal health, and ensemble work are also addressed. [Fall and Spring offering] 6 studio hours

DAN 120 Choreography I 3 credits
Prerequisite: DAN 116 or divisional permission
Introduces several choreographic strategies used to develop an idea into a dance structured for the stage. Students are exposed to the tools of choreography beginning with basics – time, space, and force – and then move on to more complex issues faced by intermediate choreographers: form, style, abstraction, compositional structures, and choreographic devices. [Spring offering]
2 lecture / 2 studio hours

DAN 285 Special Studies in Dance 3 credits
Prerequisites: DAN 101, DAN 116, DAN 117, DAN 120 and permission of program coordinator
Opportunity for students who have completed regular course offerings to continue their studies at an advanced level. Individual students and faculty develop a project contract that sets forth objectives, standards of quality, evaluation guidelines, and deadlines. [Fall offering] 6 studio hours

DMA — DIGITAL MEDIA ARTS

DMA 110 Digital Imaging 3 credits
Designed to meet the needs of artists and designers in diverse fields, involves the leading professional paint and photo retouching software. Addresses the practical and creative aspects of producing art and illustrations and manipulating photographs and other images through a series of hands-on assignments.
1 lecture / 4 laboratory hours

DMA 115 Vector Drawing 3 credits
Acquaints with the basics of production and use of vector graphics for use in print and illustration, web-based media, and animation. Skill development concentrates on the use of tools and transformation options of Adobe Illustrator, with emphasis on digital drawing for both text and graphics, use of Wacom pen tablet, key tools within Illustrator, and production of standard industry graphics for use in print, web, and animation.
1 lecture / 4 laboratory hours

DMA 120 3-D Modeling I 3 credits
Develops visual problem-solving abilities using computers as art and design tools. Students create and manipulate three-dimensional forms and scenes, their colors, surface textures, lighting and cameras to design effective compositions in virtual 3-D space. Useful for graphic arts, communications, interior design and architectural professions, prepares students for Animation I and 3-D Modeling II. Windows-based PC computers, scanners, and current professional software are used.
1 lecture / 4 laboratory hours

DMA 135 Digital Narrative 3 credits
Prerequisite: DMA 115 with a minimum C grade
Exploration of narrative art, its structure and approaches as it applies to time-based graphics. Students investigate narrative in a variety of formats – from comics to animation to film editing and various "artistic" permutations in between – with emphasis on current digital practices.
1 lecture / 4 studio hours

GenEd TECHNOLOGY

DMA 144 Internet Tools and Techniques 3 credits
Introduction to the tools and techniques used to create blogs, commercial websites and Internet applications. Topics include the history of the Internet, Internet software and hardware, ethical issues surrounding privacy, accessibility and ownership on the Internet, information architecture and content strategies, and the tools used for blogging, creating web pages and rich web applications. Students research, analyze, diagram, and create Internet applications and websites.
1 lecture / 4 studio hours

DMA 145 Web Design I 3 credits
Prerequisites: DMA 110, placement in college-level English
Introduction to web design using a professional software application. Focuses on principles of design and interactivity. Students learn how to create images for the web, manage files, organize imagery using tables, style text using cascading style sheets, create animated gifs, and add interactivity using basic JavaScript behaviors.
1 lecture / 4 studio hours

DMA 210 Motion Graphics 3 credits
Prerequisite: DMA 110 and DMA 115 with a minimum C grade or divisional permission
Digital art in motion: concepts and techniques of visual storytelling emphasizing issues of pacing, continuity and dramatic structure. 2-D graphics, video and sound are combined using new media tools to explore the possibilities of new media art. Course content is applicable to the fields of 3-D animation, film and television title sequences, commercials, multimedia design and music videos. [Spring offering] 1 lecture / 4 studio hours

DMA 225 2D Animation 3 credits
Prerequisite: DMA 135 with a minimum C grade or divisional permission
Using animation software and/or hand drawn images, students create two-dimensional animations for objects, characters, and special effects. Animations are outputted for film, video, the web, and other media. Current professional software and best practices are used. [Fall offering]
1 lecture / 4 studio hours

DMA 227 Character Riging 3 credits
Prerequisite: DMA 115
Students will construct skeletons and controls to animate digital characters. Specific projects that target unique methods for building 2D and 3D rigs will be developed. Different hierarchal structures and mechanisms will be analyzed to streamline rig application. Topics such as forward kinematics, inverse kinematics, and various scripting methods will be explored. 1 lecture / 4 studio hours

DMA 226 3D Animation 3 credits
Prerequisites: DMA 135
Advanced 3-D character animation and special effects involving character animation, inverse kinematics, and particle systems. Students produce a recording of their work and develop presentation skills. Windowsbased personal computers and current professional software are used. [Spring offering] 1 lecture / 4 studio hours

DMA 245 Web Design II 3 credits
Prerequisite: DMA 145 with a minimum C grade
Applies intermediate to advanced web design concepts with an emphasis on UI Design. Students design and develop websites utilizing professional software, identify target audiences based on client needs, produce websites according to accessibility standards, manage digital assets online, build website components, and work in a team-based environment. 1 lecture / 4 studio hours

DMA 250 Digital Portfolio Seminar 3 credits
Prerequisite: DMA 145 (for web) or DMA 210 (for multimedia) or DMA 225 (for 3D animation) or ADV 201 or ART 130 or ART 141 or PHO 203 or CMN 241 or CMN 250 with a minimum C grade or divisional permission
Introduction to the culture, technologies, history, and theories of new media. Advanced digital media arts students explore topics in digital media while developing a digital portfolio to present their work. 1 lecture / 4 studio hours

DMA 275 Interdisciplinary Studio 3 credits
Prerequisite: DMA 210 with a minimum C grade or divisional permission
Students explore the possibilities and implications of combining digital and traditional tools and techniques in the service of personal expression as fine art. Focuses on exploring each individual's aesthetic expression and the development of individual style. A variety of techniques, software, and theoretical issues are presented. Students are expected to create a series of pieces for exhibition, with emphasis on the printed output. [occasional offering] 1 lecture / 4 studio hours

DMA 290 Digital Media Arts Internship 3 credits
Prerequisite: coordinator approval
Work experience at participating animation studios, advertising agencies, design firms, and film and video effects houses.
1 lecture / 180 work experience hours

DRA — DRAFTING / COMPUTER-AIDED DESIGN

DRA 132 Architectural Computer Drafting 3 credits
Prerequisites: BCT 110, BCT 120, DRA 190 or divisional permission
Using architectural software, students produce professional drawings; compile contract documents; and date, store and retrieve information on both two- and three-dimensional projects. Involves creation of walls, doors, windows and roofs as well as implementation of symbols for structural, electrical, mechanical, plumbing, furnishing, and site work. **2 lecture / 2 laboratory hours**

DRA 190 Introduction to Computer-Aided Drafting 2credits
Introduction to the use of the computer as a drafting tool. Includes concepts, terminology, and basic commands necessary to prepare drawings using CAD software. Requires basic knowledge of the computer keyboard.
1 lecture / 2 laboratory hours

DRA 191 Introduction to Building Information Modeling 2credits
Introduction to the use of the computer using building information modeling software. Topics include basic terminology and concepts of modeling, geometry, and the basic commands necessary to prepare a building model and several drawings.
1 lecture / 2 laboratory hours

DRA 216 Heating, Refrigeration and Air Conditioning Drafting 3 credits
Prerequisites: ENT 116 or permission of instructor, HRA 102
Study of the aspects of drawing needed by a drafter in order to prepare finished drawings for the installation of heating, refrigeration, and air conditioning systems. Intended primarily for students in the Heating, Refrigeration and Air Conditioning program. [occasional offering]
1 lecture / 4 laboratory hours

DRA 217 Structural Steel Design and Drafting 3 credits
Corequisite: CIV 104
Examines the problems common to structural design of steel and similar materials relative to the architectural frame of a structure. Relies heavily on the principles of mechanics and mechanics of materials fundamentals. Requires familiarity with general steel design codes and the preparation of structural drawings.
2 lecture / 3 laboratory hours

DRA 218 3-D Modeling / 3-D Printing 3 credits
Prerequisite: MET 122 or advisor permission
An introduction to 3-D solids modeling and printing software. Students build a prototype model using SolidWorks software and print a 3-D model to explore the basic size and look of a product or machine part. Orthographic drawings with dimensions are also produced for part building using traditional machining techniques.
2 lecture / 2 laboratory hours

DRA 238 Advanced Computer-Aided Design 3 credits
Prerequisite: DRA 190
Advanced computer drafting course using CAD software. Includes a review of basic command options, display options, hatching and sectioning, text, and dimensioning. Introduces 3-D drawing and surface modeling.
2 lecture / 2 laboratory hours

DRA 248 Advanced Building Information Modeling 3 credits
Prerequisite: DRA 191 with a minimum C grade
Advanced computer-aided design and drafting using BIM software. Students build intelligent 3-D models of designs using parametric, feature-based modeling software. After refinement, 2-D drawings are created from the 3-D model.
2 lecture / 2 laboratory hours

DRA 251 Solids Modeling 3 credits
Prerequisite: DRA 238 with a minimum C grade
An introduction to solids modeling and rendering software. Students explore the capabilities and potentials of computer software used to construct solids models then render the resulting image.
2 lecture / 2 laboratory hours

ECO — ECONOMICS

GenEd SOCIAL SCIENCE

ECO 103 Basic Economics 3 credits
Prerequisites: ENG 101 and MAT 037 (or MAT 037A and 037B) with a minimum C grade or placement in college-level mathematics
Basic economics concepts enable students to better understand, analyze, and discuss current economic events and problems. Includes demand, supply and prices, measures of gross domestic product, the circular flow of income, market structures, government fiscal policy, monetary policy, the national banking system, and international trade.
3 lecture hours

GenEd SOCIAL SCIENCE

ECO 111 Macroeconomics 3 credits
Prerequisites: ENG 101 and MAT 146 with a minimum C grade
Analysis of the determinants of aggregate income, output, employment and price level under various market conditions. Includes national income and product account, consumption and investment theory, government stabilization via fiscal and monetary policy, macroeconomic impact of international trade and finance, and inflation/unemployment trade-off controversies. **3 lecture hours**

GenEd SOCIAL SCIENCE

ECO 112 Microeconomics 3 credits
Prerequisites: ENG 101 and MAT 146 with a minimum C grade
Introduction to economic principles and their application to major issues of public policy: concepts of supply and demand, nature and operation of market structures, analysis of costs and revenues, theory of production, selected problems of public policy in relation to agriculture, antitrust policy, labor relations and microeconomic aspects of world trade.
3 lecture hours

EDU — EDUCATION

EDU 102 Introduction to Exceptional Children 3 credits
Introduction to the field of special education and to exceptionality. Inclusion, an approach to teaching students with special needs in general education, is emphasized. Topics include historical overview, legislation, consideration of specific disabilities, instructional techniques and equipment, as well as teaching gifted students and non-native speakers.
3 lecture hours

EDU 109 Introduction to Education: Foundations, History, and Trends of American Education 3 credits
Introduction to American education and the teaching/learning process for future educators. Topics include history and philosophy of education, curriculum, teaching strategies, school law, diversity, technology and recent trends. Students are involved in creative activities, research, and analysis of current literature. Requires 25 hours of field observation in an educational setting. **3 lecture hours**

EDU 120 Introduction to Early Childhood Education 3 credits
Emphasizes the needs of young children in conjunction with appropriate care and educational programs. Topics include environment, developmentally appropriate practices, emerging literacy, cognitive development, learning through play, and school/home relationships. Observation and/or participation in a childcare setting are required. **3 lecture hours**

EDU 131 Supervised Field Experience in Infant/Toddler Settings 3 credits
Prerequisite or Corequisite: EDU 130
A companion course to EDU 130, designed for students interested in a career in a childcare or nursery school environment. Student field experiences critically evaluated by both students and teachers serve as a forum for discussion. A component of the New Jersey Infant/Toddler Credential, the course supports practitioners working with infants and toddlers to strengthen their capacity as caregivers of the very young.
2 lecture / 60 practicum hours

EDU 200 Capstone in Education: Professional Topics 1 credits
Prerequisite: EDU 109
Corequisite: EDU 120, & EDU 102
Capstone course introducing key aspects of the teaching profession, including state certification, required assessments, essential school law, and the impact and use of artificial intelligence in education. Emphasizes professional readiness and emerging trends in teaching and learning.
1 lecture / 0 aboratory hours

EDU 210 Education Field Experience 6 credits
Prerequisites: minimum C grade in EDU 109 and SOC 104, or minimum C grade in EDU 102 and EDU 201, and divisional permission
Corequisite: EDU 211
Internship of 15-20 hours per week in a New Jersey school approved by the coordinator of the Education / Special Education Assistant program. The student performs the duties of an education assistant under the supervision of cooperating teachers. Assignments to schools are made on the basis of the student's interests and occupational goals; arrangements must be made during the preceding semester. [Spring offering] **4 days per week**

EDU 211 Education Seminar 3 credits
Prerequisites: minimum C grade in EDU 109 and SOC 104, or minimum C grade in EDU 102 and EDU 201, or divisional permission
Corequisite: EDU 210
Examines the correlation between educational theory and practice. Students engage in research with professional journals, demonstration classes illustrating varied methods and materials, teaching units, and observation visits to area schools. [Spring offering] **3 lecture hours**

EDU 214 Curriculum and Methods for Early Childhood 3 credits
Prerequisite: EDU 120
Exposes students to a variety of methods for the planning and implementation of quality instruction in an early childhood setting. Students study strategies for creating positive learning environments while developing curricula for various subjects and learning styles. **3 lecture hours**

EET — ELECTRONICS ENGINEERING TECHNOLOGY

EET 130 Fundamentals of Electronics 3 credits
Prerequisite or Corequisite: MAT 037 (or MAT 037A and 037B)
Introduction to DC and AC circuits, electromagnetic devices, electronic components, and analog and digital circuits. For non-electronics majors.
2 lecture / 2 laboratory hours

EET 138 Introduction to Electronics I 4 credits
Prerequisite or Corequisite: MAT 038 or MAT 044
Focuses on direct current (DC) devices and circuits. Progresses from the fundamentals of electricity, Ohm's Law, Kirchoff's Law, series and parallel circuits to the study of resistors, capacitors, inductors, batteries, transistors, and diodes as they pertain to DC circuits.
3 lecture / 3 laboratory hours

EET 139 Introduction to Electronics II 4 credits
Prerequisite: EET 138 or equivalent
Continuation of EET 138. Covers the basics of AC circuits and devices including resistors, capacitors, inductors and semiconductors. Introduces fundamental waveforms such as sine waves and pulses and their behavior in solid state circuits.
3 lecture / 3 laboratory hours

EET 140 Electronic Construction 2 credits
Teaches the use of hand tools, drilling and other metalworking methods as well as correct soldering and repair techniques. Students apply these skills to chassis construction and wiring, and also gain experience in working with printed circuit boards.
1 lecture / 3 laboratory hours

EET 141 Electrical Wiring and Cabling 3 credits
Prerequisite: EET 130
Focus on electrical wiring techniques starting with 120/240 volts. Instruction for adding connectors to and installing coax, CAT5/6, and fiber optic cables emphasizes the codes and standards to be followed along with the correct tools to be used. Class time allots equally between lectures reinforced by hands-on practice.
2 lecture / 2 laboratory hours

EET 214 Communications Electronics 4 credits
Prerequisite: EET 219
Study of information transmission and reception involving both digital and analog systems. Topics include AM, FM, noise, spectra, receivers, transmitters, lines and cables, and antennas.
3 lecture / 3 laboratory hours

EET 219 Electronic Networks 4 credits
Prerequisite: EET 139 or EET 144
Analysis and design considerations for electronic circuits, including power supplies using semiconductor diodes and zener diodes, and Class A amplifiers using bipolar and FET transistors.
3 lecture / 3 laboratory hours

EET 230 Linear Integrated Circuits 4 credits
Prerequisite: EET 219 or EET 131
Covers the basic building blocks of linear systems, such as inverting and non-inverting amplifiers, comparators, and filters.
3 lecture / 3 laboratory hours

EET 251 Digital Circuit Fundamentals 4 credits
Prerequisite: EET 130 or EET 139 or EET 144
Introduces the basic theory, concepts and devices behind digital circuitry and computers, including gates, registers, flip-flops, counters, decoders and encoders, half- and full-adders, and clocks. The electrical characteristics, limitations, and connections of digital integrated circuit packages are explored. Corresponding labs reinforce lecture materials through practical examples.
3 lecture / 3 laboratory hours

EET 263 Digital Technology – Introduction to Microprocessors and Assembly Language 4 credits
Prerequisite: EET 251
Introduces the operation of a simple computer at the physical (electrical) level using gates, registers, and other basic circuits introduced in the prerequisite course. Students gain experience building and programming a simple computer. Covers memory, basic microprocessor architecture, assembly language programming, and analog-to-digital as well as digital-to-analog converters.
3 lecture / 3 laboratory hours

EET 266 Programmable Logic Controllers 4 credits
Prerequisite: EET 251
Introduces the theory and practical concepts of programmable logic controllers and their applications within industrial or manufacturing environments. Topics include PLC components, digital logic, ladder logic design, and software programming. Corresponding labs reinforce lectures with practical hands-on programming of Allen-Bradley PLC units using RSLogix software.
3 lecture / 3 laboratory hours

ENG — ENGLISH

Note: Initial selection of an English composition course is determined by results of college skills placement testing. Applicability of credits for courses below the 100 level toward degree requirements is limited. Consult an academic advisor.

ENG 023 Introduction to College Composition I 4 credits
Accelerated course for students developing as college writers. Required to be taken with ENG 033 as half of an immersive integrated reading and writing experience called the READY Program that prepares students for ENG 101 in one semester if they earn a B or better. This course is writing intensive. 4 lecture hours

ENG 033 Introduction to College Reading 4 credits
Prerequisite: placement test
Designed to provide access to collegiate study through engaging students as readers and thinkers while drawing on and integrating their individual life experiences. Students read, respond to, and think critically about readings, using literacy approaches that help them grow as readers and thinkers during the semester and beyond. 4 lecture hours

GenEd COMMUNICATION

ENG 101 English Composition I 3 credits
Prerequisite: placement test or minimum C grade in ENG 024 and ENG 034
College-level composition course designed to assist students in writing 750- to 1500-word essays on topics in various academic disciplines. Focuses on development and support of ideas, essay structure, critical thinking, analysis of readings, and other aspects of writing. Students are introduced to research techniques and documentation. 3 lecture hours

GenEd COMMUNICATION

ENG 102 English Composition II 3 credits
Prerequisite: ENG 101 with a minimum C grade
Second-level composition course designed to assist students in writing 1500- to 3000-word essays, including a formally documented research paper. Readings introduce students to literature and the analysis of concepts, language, and formal elements. 3 lecture hours

GenEd HUMANITIES

ENG 201 Introduction to Literature: Drama 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Examines the evolution of staged presentations from religious ritual to secular theater, covering works from the classical Greek period to the present day. Focuses on Elizabethan theater, Restoration comedy, 19th century realism, and contemporary theater. [Spring offering - alternate semesters] 3 lecture hours

GenEd HUMANITIES

ENG 202 Introduction to Literature: Novel 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Study of novels from various periods selected for their intrinsic value and as representative types of fiction. [Spring offering] 3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

ENG 203 World Literature I 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
A survey of important literary works from cultures around the world dating from ancient times through the 17th century. [Fall offering] 3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

ENG 204 World Literature II 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
A survey of important literary works from cultures around the world from the 17th century through the present day. [Spring offering] 3 lecture hours

GenEd HUMANITIES

ENG 205 American Literature I 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Introduction to and selective study of authors representing the enduring traditions and styles of American literature from the Puritan period through the Civil War. [Fall offering] 3 lecture hours

GenEd HUMANITIES

ENG 206 American Literature II 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Survey of American literature from 1865 to the present, including authors whose work represents the traditions and styles of American literature. Short stories, novels, poetry, and essays cover topics such as regionalism, realism, naturalism, modernism, and postmodernism. [Spring offering]
3 lecture hours

GenEd HUMANITIES

ENG 208 Modern American Novel 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Traces the triumph of prose Realism over Naturalism and the recurrent forms and techniques of the contemporary novel in the American idiom. Emphasizes the novel as the dominant modern American literary art form, as a social document, and as a portrait of time and place. [Fall offering]
3 lecture hours

GenEd HUMANITIES

ENG 211 Shakespeare 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
A survey of Shakespeare's tragedies, comedies, and histories – a body of work whose characters, themes, and language influence and permeate literature worldwide, and is essential to cultural literacy. [occasional offering] **3 lecture hours**

GenEd HUMANITIES

ENG 212 Introduction to Literature: Poetry 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Explores poetry as imagery, figurative language, allusion, tone, rhythm, meter, rhyme and stanza form. Students read major English and American poetry as well as verse from a variety of cultures to provide background for reading poems more incisively. [Fall offering - alternate semesters]
3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

ENG 213 African American Literature 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Survey class focusing on the critical evaluation of literature by writers of the African Diaspora produced in the Americas from the 18th century to the present and the contexts in which they were produced. Genres studied may include fiction, nonfiction, poetry, drama, and autobiography. [Spring offering] **3 lecture hours**

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

ENG 214 Literature of the East 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Survey of rich, diverse, non-Western creative and philosophical traditions influencing literary expression in a wide variety of genres, including regional and diasporic literature spanning the world. Covers classical era texts to experimental literary forms coming from the East and Middle East today.
3 lecture hours

ENG 215 Creative Writing I 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Develops writing skills in various genres, such as fiction, poetry, and essay. Recognized models in literary modes are analyzed for craftsmanship. Through workshop framework, students benefit from peer and instructor criticism and are encouraged to find individual voice under instructor guidance. [not a Literature elective] **3 lecture hours**

GenEd HUMANITIES

ENG 216 Literature Into Film 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Focuses on the marriage of two art forms – literature and film – and pays particular attention to how the medium affects the writer and the writer the medium. Examines selected novels, short stories, plays, essays and/or memoirs as original works and as each evolves into film. [Fall and Spring offering] **3 lecture hours**

ENG 218 Creative Writing II 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Promotes continuing development of creative writing skills; analyzes recognized models by major modern writers. Through workshop framework, peers and instructor critique student work. Students are encouraged to hone their writing voices under instructor guidance. [not a Literature elective]
3 lecture hours

GenEd HUMANITIES

ENG 220 Science Fiction Literature 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Explores science fiction through a study of genre elements and the challenges these genres present. By examining a diverse selection of speculative literature, participants better appreciate and interpret such works and how they both reflect and change our culture. [Spring offering]
3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

ENG 221 Women in Literature 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
A discussion-based course that explores literature by women writers. Texts cover a variety of authors and genres as well as themes, issues and theories concerning the production of gender in literary works. Further develops the literary analysis and academic writing skills acquired in ENG 102. [Fall offering]
3 lecture hours

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

ENG 222 Children's Literature 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Survey class focusing on the critical evaluation of literature written for children and the contexts in which they were produced. Works studied may include folk tales, traditional fairytales, picturebooks, canonized fiction, poetry, and contemporary works. [Fall and Spring offering] **3 lecture hours**

ENG 223 LGBTQ+ Literature 3 credits
Introduction to LGBTQ+ authors, literature, and theory, including various genres, themes, and social and historical contexts of the queer literary tradition. Students examine how texts construct, challenge, and negotiate concepts such as queerness, gender, sexuality, power, privilege, visbility, and public and private identities. **3 lecture hours**

GenEd HUMANITIES

ENG 227 English Literature I 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Survey of representative literature from the Anglo-Saxon and Middle English periods through the Neoclassical period. Particular attention to the works of Chaucer, Shakespeare, Milton, Donne, Dryden and Pope. Examines literary, social, cultural, and political movements as writers grappled with empire, religion, science, war, gender, sexuality, race, and class. [Fall offering - alternate semesters]
3 lecture hours

GenEd HUMANITIES

ENG 228 English Literature II 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Survey of representative English literature from the Romantic and Victorian periods up to the present. [Spring offering - alternate semesters]
3 lecture hours

ENG 230 Special Studies in Literature 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Consists of special courses in literature which cater to needs expressed by the student and the broader general community. Taking advantage of particular faculty expertise, the course is offered on an occasional basis. **3 lecture hours**

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

ENG 232 Post-Colonial Women Writers 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Examines works written in English by women of color in Asia, Africa, the Americas, and Australia. Explores contributions of the writer to the body of modern world literature – poetry, fiction, drama – along with aspects of the writers' politics and the social milieus that form their work. [occasional offering]
3 lecture hours

ENG 234 Caribbean Literature 3 credits
Prerequisite: minimum C grade in ENG 102 or divisional permission
Survey of Caribbean literature in English from the 17th century to present. Examines how Caribbean writers have imagined and articulated freedom, subjectivity, and history against and beyond colonialism and its legacies. Investigates how colonialism, post-colonialism, and the lived experiences of Caribbean people have shaped literature across multiple genres. **3 lecture hours**

ENG 239 Literature of War and Conflict **3 credits**

Prerequisite: minimum C grade in ENG 102 or divisional permission

Surveys literary responses to war and conflict with particular focus on the psychological effects of warfare. Examines multiple genres, cultures, eras, and viewpoints, but primary focus may rest on a particular era or conflict. May include texts by Homer, Sun Tzu, Stephen Ambrose, Oppenheimer, Hemingway, Tim O'Brien, and Elie Wiesel. [occasional offering] 3 lecture hours

ENG 241 Journalism II **3 credits**

Prerequisite: ENG 101

Addresses the various kinds of newswriting (straight news, features, interpretative, editorial), editing, and the techniques of reporting (interviewing; surveys; coverage of events, meetings, speeches). Actual newspaper production aspects including layout, photojournalism, and graphics are experienced through practical work on the student paper, The College Voice. 3 lecture hours

ENG 256 Fantasy Literature **3 credits**

Prerequisite: minimum C grade in ENG 102 or divisional permission

Explores fantasy literature through a study of genre elements and the challenge this genre presents to readers of mainstream literature. By examining works written in and translated to English, participants better appreciate and interpret such works and how they represent an increasingly important sub-section of literary expression. [Fall offering] 3 lecture hours

ENT — ENGINEERING TECHNOLOGY

ENT 116 Engineering Graphics **2 credits**

Corequisites: ENG 033 and MAT 033 or equivalent proficiency

Broad-based course in basic graphic concepts of engineering drawing, including such topics as orthographic projection, sectioning, isometric drawing, and dimensioning. 1 lecture / 2 laboratory hours

ESL — ENGLISH AS A SECOND LANGUAGE

Note: Initial selection of an ESL course is determined by results of ESL placement testing.

ESL 051 ESL Speech Concepts I **4 credits**

Prerequisite: score of 55-69 on Listening section of Accuplacer test

Develops listening and speaking competency in English. Stresses spontaneous spoken English to develop comprehensibility and fluency. New vocabulary and grammar are acquired and practiced in meaningful contexts. Reading, writing, and the study of vocabulary and grammar are assigned outside of class to facilitate fluent listening and speaking during class meetings. 4 lecture hours

ESL 052 ESL Reading and Critical Thinking I **4 credits**

Prerequisite: score of 60-74 on Reading section of Accuplacer test

Provides guided reading, critical analysis, and interpretation of a variety of academic texts in English for the high-beginner level student. New vocabulary and grammar acquired from reading meaningful texts. Practice of language elements and structures assigned outside of class to facilitate analysis and interpretation of texts during class meetings.
4 lecture hours

ESL 053 ESL Writing Concepts I **4 credits**

Prerequisite: score of 1 on WritePlacer section of Accuplacer test

Develops academic writing in English. Guides critical analysis of academic texts in English. Supports the development of ideas and the effective structure of essays and a research paper. New vocabulary and grammar are acquired from reading meaningful texts and practiced through meaningful original writing. 4 lecture hours

ESL 061 ESL Speech Concepts II **4 credits**

Prerequisite: ESL 051 or score of 70-84 on Listening section of Accuplacer test

Develops listening and speaking competency in English. Stresses spontaneous spoken English to develop comprehensibility and fluency. New vocabulary and grammar are acquired and practiced in meaningful contexts. Reading, writing, and the study of vocabulary and grammar are assigned outside of class to facilitate fluent listening and speaking during class meetings. 4 lecture hours

ESL 062 ESL Reading and Critical Thinking II 4 credits

Prerequisite: ESL 052 or score of 75-94 on Reading section of Accuplacer test

Provides guided reading, critical analysis, and interpretation of a variety of academic texts in English for the high-beginner level student. New vocabulary and grammar acquired from reading meaningful texts. Practice of language elements and structures assigned outside of class to facilitate analysis and interpretation of texts during class meetings. 4 lecture hours

ESL 063 ESL Writing Concepts II 4 credits

Prerequisite: ESL 053 or score of 2 on WritePlacer section of Accuplacer test

Develops academic writing in English. Guides critical analysis of academic texts in English. Supports the development of ideas and the effective structure of essays and a research paper. New vocabulary and grammar are acquired from reading meaningful texts and practiced through meaningful original writing. 4 lecture hours

ESL 071 ESL Speech Concepts III 4 credits

Prerequisite: ESL 061 or score of 85-100 on Listening section of Accuplacer test

Develops listening and speaking competency in English. Stresses spontaneous spoken English to develop comprehensibility and fluency. New vocabulary and grammar are acquired and practiced in meaningful contexts. Reading, writing, and the study of vocabulary and grammar are assigned outside of class to facilitate fluent listening and speaking during class meetings. 4 lecture hours

ESL 072 ESL Reading and Critical Thinking III 4 credits

Prerequisite: ESL 062 or score of 95-111 on Reading section of Accuplacer test

Provides guided reading, critical analysis, and interpretation of a variety of academic texts in English for the high-beginner level student. New vocabulary and grammar acquired from reading meaningful texts. Practice of language elements and structures assigned outside of class to facilitate analysis and interpretation of texts during class meetings. 4 lecture hours

ESL 073 ESL Writing Concepts III 4 credits

Prerequisite: ESL 063 or score of 3-4 on WritePlacer section of Accuplacer test

Develops academic writing in English. Guides critical analysis of academic texts in English. Supports the development of ideas and the effective structure of essays and a research paper. New vocabulary and grammar are acquired from reading meaningful texts and practiced through meaningful original writing. 4 lecture hours

ETT — ENTERTAINMENT TECHNOLOGY

ETT 102 Introduction to the Entertainment Industry 3 credits

Prerequisite: eligibility for placement in ENG 101

An introduction to terminology, working methods, processes, equipment, and facilities for various entertainment industry venues with a particular emphasis on theatre and music technology and production. Laboratory work includes an introduction to various lighting programs and digital audio production software. Related current events and career opportunities are discussed. Attendance at several applicable events is required.

2 lecture / 2 laboratory hours

ETT 200 Technical Production 1 credit

Prerequisites: ETT 102, THR 102, and prior advisor approval

Supervised laboratory in the technical areas of production including planning, construction, and running of productions. Emphasizes careful pre-planning and appropriate safety procedures along with follow-up critiques and evaluation of the work done. Graded on pass-fail basis. 90 hours minimum

ETT 205 Artsand Entertainment Management 3 credits

Prerequisite: ETT 102 with a minimum C grade

An introduction to common issues and best practices in the management of arts and entertainment organizations. Students gain a basic understanding of business requirements and challenges in producing entertainment. Topics include common management structures in not-for-profit and for-profit arts and entertainment organizations, marketing, public relations, fundraising, budgeting, and human resources. Legal concerns addressed include contracts, copyright, licensing, and royalties. 3 lecture hours

ETT 290 Entertainment Technology Internship 2 credits

Prerequisites: ETT 200 and prior advisor approval

Work experience at a professional scenery fabrication shop, rental/supply house, off-Broadway theater, or any entertainment-related organization. Serves to bridge the student's academic and commercial careers by cultivating professional work experience and industry contacts. Each student, supervised by faculty and a manager at the internship site, creates a portfolio and keeps a log/journal to be shared in group seminars. Graded on pass-fail basis. 1 class hour every other week.

190 internship hours

FAS — FASHION

FAS 105 Fashion: The Global Marketplace 3 credits

Prerequisite: placement in college-level English

An overview of the fashion industry beginning with a historical perspective that covers both domestic and international influences. Integrates creative fashion concepts with business concepts commonly used in general marketing. Topics include international sourcing and trade, and retailing.

3 lecture hours

FAS 110 Introduction to Fashion Drawing 3 credits

Prerequisite: ART 102

Coordinated with Fashion Design I, develops techniques, skills, and knowledge needed to produce fashion drawings that are clear, accurate, realistic and attractive. Vocabulary of various clothing styles and details are introduced.

1 lecture / 4 laboratory hours

FAS 120 Introduction to Fashion Industries 3 credits

Corequisite: FAS 130

Foundational course introducing the fashion design, merchandising, and retail industries from concept to consumer. Industry terminology and standard practices are explored along with career opportunities. Toward immediate employment, students study for the NRF Retail Industry Fundamentals Certification, participate in practice tests, and pursue the certificate option.

1 lecture / 4 laboratory hours

FAS 130 Introduction to Textiles for Fashion 3 credits

Prerequisite or Corequisite: ENG 101

Explores how textiles are produced and how appropriate performance characteristics are incorporated into materials and products. Students make informed decisions regarding materials and products to communicate effectively with team members in the workplace, suppliers, contractors and buyers. Careers in the global textile industry are discussed. 3 lecture hours

FAS 140 Fashion Technology 3 credits

Corequisite: FAS 110

Covers two computer software applications used in the fashion design industry to design and create apparel and accessories. Projects explore a range of fashion designing and related drawings in both vector and pixelbased applications.

1 lecture / 4 laboratory hours

FAS 150 Technical Skills for Apparel Production I 3 credits

Introduces muslin draping techniques on the dress form, flat pattern making, and garment construction on the sewing machine. Based on the scope of a student's project or level of study, additional costs for materials and supplies are required.

1 lecture / 4 laboratory hours

FAS 205 Fashion Visual Merchandising and Display 3 credits

Prerequisites: BUS 101, ENG 101, MKT 101, MKT 230

An integrated and customer-centered approach to merchandising. Covers strategic planning, product objectives and categories, industry zones, and product life cycles. Topics include pricing, positioning, placement, market research, environments, demographics, geographics, and psychographics. Emphasizes fashion forecasting with the buying-selling cycle for retail buyers.

3 lecture hours

FAS 220 History of Costume Design 3 credits

Prerequisite: FAS 105

Comprehensive overview of fashion history and its development as a globalized industry. A survey of chronological geographic and cultural trends that have influenced modern fashion addresses men's and women's clothing and accessories.

3 lecture hours

FAS 230 Fundamentals of Fashion Retail Buying and Merchandising 3 credits

Prerequisites: FAS 105, FAS 205

Covers methods of analyzing customer demand, assisting retailers with merchandising activities, product sourcing, logistics related to importing, and techniques to maximize profits. Students produce reports to evaluate sales and profitability performance as well as management strategies.

3 lecture hours

FAS 250 Technical Skills for Apparel Production II 3credits

Advanced sewing/draping skills are developed to produce finished garments from individually designed fashion and apparel pieces. Based on the scope of a student's project or level of study, additional costs for materials and supplies are required.

1 lecture / 4 laboratory hours

FAS 260 Fashion Industries Capstone and Portfolio 3 credits

Prerequisites: FAS 110, FAS 120

Enables students to finalize an original, professional portfolio showcasing individual abilities and skills. Students select a target market as well as a product focus which best display their proficiencies and prepare them for further study or careers in the fashion industry.

1 lecture / 4 laboratory hours

FIR — FIRE SCIENCE

FIR 101 Introduction to Fire Science 3 credits

History and philosophy of fire protection and prevention involves a survey of equipment, tactics, building construction, extinguishing agents, hazardous materials, and fire department organization.

3 lecture hours

FIR 104 Building Construction 3 credits
Examination of building design and construction with emphasis on fire protection and life safety. Review of pertinent standards and codes.
3 lecture hours

FIR 110 Fire Prevention and Code Enforcement I 7 credits
Acquaints with the history, theory, and practice of fire prevention and code enforcement. Topics include relevant codes, recognition of fire hazards, and implementation of an inspection program. Meets the 104-hour requirement for eligibility to take the national ICC Fire Inspector I examination. Successfully passing leads to New Jersey Division of Fire Safety Fire Inspector certification.
6 lecture / 2 laboratory hours

FIR 201 Hazardous Materials 3 credits
Prerequisite: CHE 100 or equivalent background
Study of basic fire chemistry relating to the categories of hazardous materials including problems of recognition, reactivity, and health encountered by firefighters. 3 lecture hours

FIR 202 Water Supply for Fire Protection 3 credits
Explores water supply storage and distribution as well as efficient use of water at the fire scene.
3 lecture hours

FIR 203 Fire Protection Systems 3 credits
Study of various automatic detection and signaling devices and systems, automatic sprinklers, standpipes, and special extinguishing installations.
3 lecture hours

FIR 204 Fire Fighting Tactics 3 credits
Examines pre-fire planning, fire ground organization and problem-solving, and proper utilization of manpower and equipment. 3 lecture hours

FIR 205 Fire Department Organization 3 credits
Study of the history, methods, types, and principles of fire department organization and management. Emphasizes supervisory responsibilities and functions. 3 lecture hours

FIR 206 Fire Investigation 3 credits
Provides the fundamental and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the firesetter, and types of fire causes. 3 lecture hours

FIR 208 Fire Department Safety and Health Administration 3 credits
Develops an understanding of fire service safety and risk management programs including fire service requirements, compliance with OSHA regulations, national consensus standards, and NFPA 1500.
3 lecture hours

FIR 209 Fire Prevention and Code Enforcement II 3 credits
Prerequisite: FIR 107
Examines duties of the fire official, legal aspects, and coordination with other governmental agencies. Topics include fire code administration, principles of personnel management, records management, variances, penalties, and enforcement procedures. Approved by the New Jersey Bureau of Fire Safety toward Fire Official certification pursuant to the Uniform Fire Safety Act.
3 lecture hours

FIR 211 Fire Investigation II 3 credits
Prerequisite: FIR 206
Provides advanced technical knowledge on rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and courtroom testimony.
3 lecture hours

FRE — FRENCH

Note: Students who have taken two or more years of a foreign language, and have done so in the last two years, should begin that language at the 200 level or switch to a new language. If there is doubt, placement will be determined by testing or consultation with the academic division.

GenEd HUMANITIES

FRE 101 Beginning French I 3 credits
For students with little or no prior knowledge of French. Spoken communication in French is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced. 3 lecture hours

GenEd HUMANITIES

FRE 102 Beginning French II 3 credits
For students who either completed FRE 101 or have otherwise gained elementary prior knowledge of French. Spoken communication in French is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced.
3 lecture hours

GenEd HUMANITIES

FRE 201 Intermediate French I 3 credits
For students who either completed FRE 102 or have otherwise acquired prior reading and speaking abilities in French at a high-novice level. Vocabulary and grammar applied to discussions on Francophone culture, politics, and history. New vocabulary and grammar introduced. French reading, writing, listening, and speaking are the means and goal of instruction. 3 lecture hours

GenEd HUMANITIES

FRE 202 Intermediate French II 3 credits
Continuation of FRE 201; not strictly sequenced. For students who either completed FRE 102 or have otherwise acquired reading and speaking abilities in French at a high-novice level. Reading, writing, listening, and speaking are the means and goal of instruction. Vocabulary and grammar practiced on topics of culture, politics, and history.
3 lecture hours

FUN — FUNERAL SERVICE

FUN 203 Funeral Service Principles 3 credits
Prerequisites: ENG 101 and enrollment in Funeral Service Program
Introduction to the basic services performed by the funeral director from first call to final disposition. Includes religious practices, Veterans Administration and Social Security, transportation and funeral merchandise. Emphasizes vocabulary, ethical practices and professional attitudes.
3 lecture hours

FUN 206 Introduction to Funeral Service 3 credits
Prerequisites: ENG 101 and enrollment in Funeral Service Program
Focus on terminology, the impact of grief on society, the history of funeral service, and various professional organizations. Includes variations in funeral practices due to cultural differences, reactions to death, grief and bereavement, and the impact of family structures. 3 lecture hours

FUN 215 Funeral Service Law 3 credits
Prerequisites: BUS 107 and enrollment in Funeral Service Program
Basic principles of law impacting the funeral service profession, with emphasis on common law, New Jersey statutes, rules and regulations and FTC compliance. Includes cemetery law, burial standards, rights and wrongs concerning the body and burial, and zoning restrictions. 3 lecture hours

FUN 217 Funeral Service Management 3 credits
Prerequisites: ACC 106, FUN 203, FUN 215
Business and management practices pertinent to funeral service with emphasis on small business. Particular consideration to staff organization, employer/employee relations, funeral home budget, funeral service merchandising, insurance, price determination and quotation, advertising, OSHA, and applicable federal regulations. 3 lecture hours

FUN 223 Funeral Service Pathology 3 credits
Prerequisite: BIO 106 (or BIO 103 and BIO 104) or permission of Director of Funeral Service Programs
Survey of the major diseases, including pathological changes related to disease processes and the effects of physical and chemical trauma on the human body. Facilitates understanding of medical terminology relevant to funeral service.
3 lecture hours

FUN 222 National, State, & Local Application of Law 2 credits
Prerequisite: FUN 215
Emphasis on the national standards involved for licensure, including laws, rules, and regulations that specifically influence funeral service practice in New Jersey, Delaware, and Pennsylvania. It covers general licensure and intern requirements, rules for operating a funeral home, embalming procedures, general and specific rules of practice, advertising, and continuing education.
2 lecture hours

FUN 227 Restorative Art 3 credits
Prerequisites: BIO 106 (or BIO 103 and BIO 104); FUN 247 or permission of Director of Funeral Service Programs
Examines facial anatomy including underlying structures and facial features, restoration, color and cosmetics. Lab work develops proficiency in anatomical modeling and the practical application of cosmetics. 2 lecture / 2 laboratory hours

FUN 229 Funeral Service Counseling 3 credits
Prerequisites: FUN 206 and PSY 101 or permission of Director of Funeral Service Programs
Promotes an appreciation of care-giving roles in relation to grieving persons and addresses the background material, skills and procedures needed for helping situations. Situations requiring professional therapy are differentiated from those requiring referrals for more specialized counseling.
3 lecture hours

FUN 247 Principles of Embalming I 3 credits

Prerequisites: BIO 106 (or BIO 103 and BIO 104), ENG 101 and enrollment in Funeral Service Program

Includes review of historical background, ethical and sanitary considerations, signs and tests of death, postmortem changes and basic procedures, instruments and equipment employed in embalming with emphasis on procedures for handling infectious/contagious disease.

3 lecture hours

FUN 249 Principles of Embalming II 3 credits

Prerequisite: FUN 247 with a minimum C grade

Continuation of FUN 247. Topics include cavity treatment, types of embalming chemicals and their uses, causes of embalming failure, discolorations, vascular difficulties, decomposition, dehydration, edema, deformities and malformations, and radiation. **3 lecture hours**

FUN 251 Embalming Lab and Practicum 3 credits

Prerequisites: permission of Director of Funeral Service Programs; students must be registered interns

Develops practical embalming skills, combining 112 hours of work experience in a funeral home and additionally at the MCCC embalmbing facility with discussions of applications. Topics include OSHA, embalming procedures, embalmbing products, cavity treatment, infant embalming and special cases.

3 laboratory and/or discussion hours plus 224 hours of work experience

FUN 295 Funeral Service Field Experience 3 credits

Prerequisites: approval from Director of Funeral Service Programs; students must be registered interns

Combines classroom discussion with 16-20 hours per week as an intern (or student-trainee) in an approved funeral home. Topics include death certificates, permits, vital statistics compliance, computer applications, Social Security and Veterans Administration paperwork, obituary writing, government compliance and other current issues.

2 hours seminar plus 224 hours of work experience

GAM — GAME DESIGN

GAM 120 Game Design Theory and Culture 3 credits

Students explore the historical and cultural significance of play through human history to include today's video game phenomenon by examining many game models across several genres. Conceptual and production processes involved in current industry game design and development are introduced, with particular emphasis on the design of creative models expressing gaming concepts.

1 lecture / 4 laboratory hours

GAM 140 Game Design I 3 credits

Prerequisite: ART 102 with a minimum C grade

Students develop fundamental skills designing computer games. Topics include environments, interfaces, rules, dynamics, play mechanics, goals, conflicts and aesthetics. Students learn to use standard industry levelbuilding software and digital sculpting tools. Emphasis is placed on conceptual design of game play, interface, and the processes of 2-D and 3-D content creation.

1 lecture / 4 laboratory hours

GAM 145 Game Programming I 3 credits

Prerequisite: GAM 120

Analysis of an existing professional game engine contributes to an understanding of a game's architecture and development. Working within the limits of the game engine, students design their own programming projects, modifying the logic and engine to create custom game experiences.

2 lecture / 2 laboratory hours

GAM 240 Game Design II 3 credits

Prerequisite: DMA 120 with a minimum C grade

Emphasis on prototyping and level-building of game design concepts expands on the topics explored and skills developed in Game Programming I. Additional topics include content importing and configuration, mapping, lighting, physics, and scripted interaction.

1 lecture / 4 laboratory hours

GAM 245 Game Programming II 3 credits

Prerequisite: GAM 145

Builds upon the existing skills developed in GAM 145 - Game Programming I. Students expand their knowledge of the Unity3D Game Engine and C# programming language to learn higher-level programming techniques for topics such as quaternion computation, AI behaviors, pathfinding, networking, advanced collision detection, and task management for large-scale games.

1 lecture / 4 laboratory hours

GAM 250 Interactive Narrative Development 3 credits

Prerequisite: DMA 135, CMN 147

This course is designed to help students interested in animation, film, game, and VFX to develop their own interactive narratives using the realtime pipeline of a professional game engine. Students will examine innovative works, identify industry standard techniques, and apply specific workflows to produce various forms of films, games, pitches, and other forms media. Projects will focus on storytelling, world-building, integrating static and dynamic content, pre-production, and visual development. **3 lecture hours**

GAM 260 Game Development 3 credits
Prerequisites: GAM 140 and GAM 240 with a minimum C grade
In this capstone course, students work in interdisciplinary production teams to develop computer games and modules utilizing industry-standard game engines. Coursework centers on producing scripted real-time modules, play testing, and documentation to specify game design concepts.
1 lecture / 4 laboratory hours

GER — GERMAN

Note: Students who have taken two or more years of a foreign language, and have done so in the last two years, should begin that language at the 200 level or switch to a new language. If there is doubt, placement will be determined by testing or consultation with the academic division.

GenEd HUMANITIES

GER 101 Beginning German I 3 credits
Spoken communication in German is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced. **3 lecture hours**

GenEd HUMANITIES

GER 102 Beginning German II 3 credits
For students who either completed GER 101 or have otherwise gained elementary prior knowledge of German. Spoken communication in German is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced.
3 lecture hours

GenEd HUMANITIES

GER 201 Intermediate German I 3 credits
For students who have either completed GER 102 or have otherwise acquired prior reading and speaking abilities in German at a high-novice level. Reading, writing, listening, and speaking are the means and goal of instruction. Vocabulary and grammar practiced on topics of culture, politics, and history. **3 lecture hours**

GenEd HUMANITIES

GER 202 Intermediate German II 3 credits
For students who have either completed GER 102 or have otherwise acquired prior reading and speaking abilities in German at a high-novice level. Reading, writing, listening, and speaking are the means and goal of instruction. Vocabulary and grammar practiced on topics of culture, politics, and history. **3 lecture hours**

HIS — HISTORY

GenEd HUMANITIES / HISTORICAL PERSPECTIVE

HIS 101 History of Western Civilization to 1648 3 credits
[not recommended for students who have taken HIS 112] Introduction to the political, social, cultural, and economic events that distinguished Western civilization to 1648. Major topics include ancient Near Eastern civilizations, Greece and Rome, the Middle Ages, and the Renaissance and Reformation. Examination of highlight works, including literary and visual sources. **3 lecture hours**

GenEd HUMANITIES / HISTORICAL PERSPECTIVE

HIS 102 History of Western Civilization Since 1648 3 credits
[not recommended for students who have taken HIS 113] Introduction to the political, social, cultural, and economic events that have distinguished Western civilization since 1648. Major topics include Absolutism, the Scientific Revolution, the Enlightenment, the French Revolution, Industrialization, Nationalism, World Wars I and II, and recent trends. Examination of highlight works, including literary and visual sources.
3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE

HIS 105 United States History to 1865 3 credits
Surveys American history to 1865 with emphasis on general concepts and processes. Examines colonial settlement and society, revolution and nation building, the market revolution and Jacksonian democracy, gender, slavery, and the Civil War.
3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE

HIS 106 United States History Since 1865 3 credits
Surveys American history since 1865 with emphasis on general concepts and processes. Examines Reconstruction, the Gilded Age, Progressivism, World Wars, the New Deal, the Cold War, civil rights, gender, social class, and 21st century issues.
3 lecture hours

HIS 107 The Civil War 3 credits
Examines slavery, sectionalism, the meaning of Union, racism, and the triumph of Industrial Capitalism. Assesses these issues from social, cultural, economic, and political perspectives to determine the causes, course, and effects of the American Civil War. 3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE / DIVERSITY AND GLOBAL PERSPECTIVE

HIS 109 African American History 3 credits
Studies the history of the African American from the beginnings in the 15th century to the present. Special emphasis on the investigation and analysis of the historic sources of the problems that African Americans confront in America today.
3 lecture hours

HIS 110 Film and History 3 credits
An analytical and topical study of 20th century American social, cultural, economic, and political history as represented in film. 3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE / DIVERSITY AND GLOBAL PERSPECTIVE

HIS 112 World History to 1500 3 credits
[not recommended for students who have taken HIS 101] Survey of world history from pre-history to 1500, examining the development of ancient societies in Asia, Europe, Africa, the Americas, and Oceania. Examines interactions among peoples of different societies including ancient Egypt and Nubia, India, classical Greece and Rome, the Islamic states, Han China, early Korea and Japan, and Andean and Mesoamerican societies.
3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE / DIVERSITY AND GLOBAL PERSPECTIVE

HIS 113 World History Since 1500 3 credits
[not recommended for students who have taken HIS 102] Survey of world history from 1500 to the present, examining the development of societies in Asia, Europe, Africa, the Americas, and Oceania. Charts the development of individual societies in the Modern Age by focusing on interactions among diverse cultures and the driving forces of changes such as industrialization/technology, nationalism and colonization/decolonization.
3 lecture hours

HIS 122 American Sports History 3 credits
Examines sports' prominence in American life since the mid-19th century. Focuses on sports as a reflection of our social, political and economic make-up and on sports' ability to affect and shape our institutions. Particular attention is given to social class, race and ethnicity, gender, community, technology, and commercialization and the media.
3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE / DIVERSITY AND GLOBAL PERSPECTIVE

HIS 213 Twentieth-Century World History 3 credits
Corequisite: ENG 101
Study of world history from the age of imperialism through the modern era. Focuses on the World Wars, the Cold War, colonization and decolonization, political ideologies, genocides, gender, race and ethnicity, religion, class, technology, poverty, terrorism, cultural history, and other global issues. 3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE

HIS 214 The United States Since 1945 3 credits
Intensive study of American history since World War II examines World War II, the Cold War at home and abroad, the Civil Rights movement, Vietnam, social upheavals and new forms of cultural expression during the 1960s, gender and class, technology, and 21st century issues.
3 lecture hours

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

HIS 215 The Holocaust and Other Genocides 3 credits
Prerequisite: HIS 102 or HIS 113 recommended
Analyzes the Holocaust and other genocides of the 20th and 21st centuries from an historical perspective. Specific topics include anti-Semitism in Europe, Nazism, the Final Solution, Armenian nationalism, the Khmer Rouge, and African genocides. Texts, testimonies, films, and other resources contribute to understanding events and responses. Particular attention is given to universal themes including prejudice, racism, evil, and moral responsibility. 3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE / DIVERSITY AND GLOBAL PERSPECTIVE

HIS 218 History of Latin America 3 credits
Survey of Latin America from pre-Columbian origins to current times. Topics include Indian civilizations, discovery and conquest, colonial rule, independence movements, as well as 19th century and current issues and events. 3 lecture hours

HIS 220 History of Daily Life in the Modern Western World 3 credits
Examines the continuities and changes in daily life among ordinary people from the 17th century to the present. Although seemingly powerless for much of this period, certain social categories such as peasants, slaves, poor workers, and women played significant roles in the development of the modern world. This course explores those roles by studying the social and cultural aspects of daily life as revealed through a variety of primary sources and secondary studies. 3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE / DIVERSITY AND GLOBAL PERSPECTIVE

HIS 221 History of American Women 3 credits
Studies the role and lives of outstanding women in selected historical periods, focusing on composite historical forces that shaped their lives. Current research in anthropology, psychology, and sociology supplements the historical content. [occasional offering] 3 lecture hours

HIS 226 History of New Jersey 3 credits
Surveys New Jersey history from the pre-colonial era to the present, with special emphasis on race, gender, ethnicity, social class, and the state's meaningful place in the larger story of American history. [occasional offering] 3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE / DIVERSITY AND GLOBAL PERSPECTIVE

HIS 231 Women in Antiquity 3 credits
Examines the legal, social, and cultural roles and status of women in the Ancient Near East, Egypt, Greece, and Rome through review of ancient literature, legal and economic texts, art, and archaeology, supplemented with scholarly commentaries.
3 lecture hours

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

HIS 232 Women in Europe Since 1500 3 credits
Examines, through a variety of sources, the history of women in Western society since 1500. Through close readings and critical discussion of literature, legal and economic texts, art, as well as scholarly commentary, a deeper appreciation of the legal, social, and cultural roles and status of women in Europe from the Reformation to the present is developed. While focusing mostly on the historical conditions of women, this course also explores the history of gender and sexuality. 3 lecture hours

HIS 233 Medieval European History 3 credits
Corequisite: ENG 101
Social, economic, technological, political, and religious history of Europe, the Middle East, and North Africa from the fall of the Roman Empire to the 1500s with particular attention given to Byzantium, the Muslim empires, the Crusades, and the origins of modern Europe by the early Renaissance.
3 lecture hours

GenEd HUMANITIES / HISTORICAL PERSPECTIVE

HIS 235 Early Modern Europe 3 credits
Corequisite: ENG 101
Introductory survey of European history between 1500 and 1800, including the Renaissance, Reformation, Scientific Revolution, Europe's encounters with non-European societies, and the development of absolutism. National developments are examined and placed in a broad, comparative context. Emphasis on primary sources to provide a deeper appreciation for events and people of the period. 3 lecture hours

HOS — HOSPITALITY

HOS 100 Hospitality Success Skills 1 credit
Introduces skills necessary to be successful in the hospitality program and the hospitality industry. Emphasizes career options and how to make the most of the educational experience through self management, internship opportunities, and effective study habits. Additional topics include customer service, history and trends of the hospitality industry, and the role of cultural diversity.
1 lecture hour

HOS 101 Food Preparation I 3 credits
Prerequisites or Corequisites: HOS 111, HOS 118
Introduction to the principles, skills, and techniques associated with the culinary arts, involving various cooking methods including classic and modern techniques. Identification of various kitchen staples, food products, and equipment used within the commercial food operation. Hands-on activities require the preparation of a wide variety of recipes. Chef whites required.
1 lecture / 4 laboratory hours

HOS 102 Food Preparation II 3 credits
Prerequisites: HOS 101 and HOS 118 or equivalent proficiency
Refines culinary skills in quantity food preparation through operation of a student-run restaurant. Includes kitchen and dining room organization and operations; menu development and design; management of service and culinary personnel; service standards; serving the general public; merchandising and sales promotion; and banquet management. Chef whites required.
1 lecture / 4 laboratory hours

HOS 104 Hotel Management and Lodging Operations 3 credits
Preliminary study of operations and management in the lodging industry with special emphasis on front desk operations and management, housekeeping, corporate structure, staffing, sales, security, and accounting. 3 lecture hours

HOS 109 Advanced Culinary Arts 3 credits
Prerequisites: HOS 101 and HOS 118 or equivalent proficiency
Comprehensive review of current culinary arts practices, including advanced professional culinary skills, recipes, techniques, and use of ingredients. Involves practice of a wide variety of classical and modern cooking techniques as well as basic and advanced sanitation measures in kitchen operations. 1 lecture / 4 laboratory hours

HOS 110 Breakfast / Pantry 2 credits
Prerequisites: HOS 101, HOS 118
Covers basic breakfast preparation, presentation, and merchandising techniques for some basic baked goods, breakfast proteins, as well as garnishes. Practical laboratory experience involves preparing and serving meals. Use, safety, care, and storage of hand tools – including cook's and vegetable knives – are emphasized.
1 lecture / 3 laboratory hours

HOS 111 Culinary Math 1 credit
Prerequisite: MAT 037 or MAT 042
Focus on key mathematic concepts related to culinary arts. Students demonstrate a working knowledge of topics including calculating yield percent, determining portion costs, periodic food costs, 'selling price' determinations, weights and measures, changing recipe yields, and converting between metric and U.S. measurements.
1 lecture hour

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

HOS 115 Food and Culture 3 credits
Applying a global perspective of the symbolic, social, political, and economic role of food in different cultures, examines the geographical and historical conditions that give rise to various regional cuisines. Lectures, demonstrations, and hands-on participation reveal how institutions and organizations influence food habits and beliefs.
2 lecture / 2 laboratory hours

HOS 116 Techniques of Healthy Cooking 3 credits
Prerequisites: HOS 101, HOS 118
Study of nutritional guidelines for selecting, preparing and cooking a wide variety of food products, including desserts. Cooking techniques include sautéing, roasting, steaming and grilling. Healthful menu planning applies "tricks of the trade" techniques to trim calories and fats. Chef whites required. 1 lecture / 4 laboratory hours

HOS 118 Sanitation and Safety in Food Service Operations 2 credits
Laws and principles governing safe food service, from purchasing, receiving, preparing, serving, and storing to re-heating food products. Prepares students to take the National Restaurant Association Education Foundation certification exam as part of the course. 2 lecture hours

HOS 120 Introduction to the Hospitality Industry 3 credits
Close-up view of the lodging, food service, travel and tourism fields, with introduction to hospitality management, marketing, guest services, hospitality law, human relations and allied hospitality fields.
3 lecture hours

HOS 185 Table Service 2 credits
Prerequisites or Corequisites: HOS 111, HOS 118
Focus on dining room operations including all aspects of service including dining room systems, merchandising, and customer service. Lab hours in the dining room, where students serve customers in one of the student-run restaurants, reinforce classroom discussion.
1 lecture / 3 laboratory hours

HOS 203 Hospitality Purchasing 3 credits
Prerequisites or Corequisites: HOS 111, HOS 118
Accepted practices for receiving, storing and issuing food and nonfood products within the hospitality industry. Covers purchasing major equipment, small wares, tableware, textiles, and vendor services. 3 lecture hours

HOS 204 Hospitality Marketing 3 credits
Addresses marketing plans, market research, market segmentation, positioning, consumer behavior, advertising, promotion, pricing theory, and hospitality group sales. 3 lecture hours

HOS 208 Hospitality Law 3 credits
Introduction to hospitality law, its effect on hospitality management, and the legal principles that govern the hospitality industry. 3 lecture hours

HOS 210 Applied Kitchen Skills – Cafe 3 credits
Prerequisite or Corequisite: HOS 109
An advanced course in pantry and deli preparation and organization. Developing speed skills with quantity production while following industry guidelines for sanitation and safety, students demonstrate proper plate presentation, including seasonal production, in a dining room pantry.
1 lecture / 4 laboratory hours

HOS 217 Professional Baking I 3 credits
Prerequisite: MAT 037 or MAT 042
Prerequisites or Corequisites: HOS 111, HOS 118
Fundamental principles and procedures for preparing baked goods, pastries, and desserts. Promotes the understanding of baking formulas in bakeshop production planning and ability to produce high-quality items through the development of manual skills. Stresses the use of equipment and supplies in a safe and sanitary manner. Chef whites required. 1 lecture / 4 laboratory hours

HOS 218 Professional Baking II 3 credits
Prerequisites: HOS 111, HOS 118, HOS 217
Intermediate principles and procedures for preparing baked goods, specialty cakes, pastries and pies. Emphasizes producing quality items through the development of manual skills, knowledge of ingredients and proper use of advanced bakery formulas. Stresses use of high-quality ingredients, equipment, advanced manual skills, and safe and sanitary bakeshop practices.
1 lecture / 4 laboratory hours

HOS 219 Advanced Decorating/Cake 2 credits
Corequisites: HOS 118, HOS 217
Advanced principles and procedures for preparing baked goods, specialty cakes, pastries and pies, and other specialty desserts. Emphasizes producing high-quality items.
1 lecture / 3 laboratory hours

HOS 230 Experimental Kitchen 2 credits
Prerequisites: HOS 101, HOS 111, HOS 118
Covers tastes and flavors (sweet, salt, bitter, sour, and umami). Students explore culinary herbs and spices, salts, peppers, oils, vinegars, essences, fragrances, oleoresins, concentrates, freeze dried fruit and vegetable products, and other flavor carriers used in cooking and culinary research and development. Includes a handson lab application of techniques learned.
1 lecture / 3 laboratory hours

HOS 231 Meat, Poultry and Fish Fabrication 1 credit
Prerequisites or Corequisites: HOS 111, HOS 118
Addresses the fundamentals of purchasing specifications; receiving, handling, and storing meat and seafood; plus techniques for fabricating cuts for professional kitchens. 2 laboratory hours

HOS 235 American Regional Cuisine 2 credits
Prerequisite or Corequisite: HOS 109
Prepare, taste, serve, and evaluate traditional regional dishes of America. Study and practices emphasize ingredients, flavor profiles, preparations, and techniques representative of cuisines of the United States. 1 lecture / 3 laboratory hours

HOS 240 Classical Cuisine / Advanced International 2 credits
Prerequisite or Corequisite: HOS 109
Students demonstrate a working knowledge in their approach to flavor profiles by applying cooking methods practiced by each ethnic group visited. Traditional preparation and plate presentation is emphasized utilizing both classic and modern approaches. 1 lecture / 3 laboratory hours

HOS 245 Chocolates and Confections / Retail Bakeshop 3 credits
Prerequisite: HOS 217
The essentials for creating sculptures, forming simple centerpieces, and preparing chocolates and other confections with soft, hard, and liquid centers. Along with merchandising concepts, traditional and contemporary production practices are explored for products including pastillage, nougatine, and assorted sugar and chocolate decorative pieces. 1 lecture / 4 laboratory hours

HOS 246 Artisanal Breads 2 credits
Prerequisite: HOS 217
An in-depth study and practice of Artisan bread baking. Old World techniques are applied with an emphasis on levians, poolish, and sponge bread methods. 1 lecture / 3 laboratory hours

HOS 247 Restaurant Desserts 3 credits
Corequisite: HOS 218
How to produce and merchandise restaurant-style desserts. Along with an emphasis on dessert menu planning, production techniques are practiced involving plate-up, garnish, and component style desserts. 1 lecture / 4 laboratory hours

HOS 249 Advanced Pastry 2 credits
Corequisite: HOS 218
How to produce and merchandise restaurant-style desserts. Along with an emphasis on dessert menu planning, production techniques are practiced involving plate-up, garnish, and component style desserts. 1 lecture / 3 laboratory hours

HOS 255 Garde Manger 2 credits
Prerequisites: HOS 101, HOS 118
Addresses basic and advanced garde manger and charcuterie techniques such as the preparation and serving of hot and cold hors d'oeuvres, aspics, pates, mousses, terrines, and cold dishes along with advanced techniques for the planning and arrangement of buffets. Covers table arrangement and planning, creation of model nonedible food displays, as well as manipulation of specialized tools to produce decorative buffet items and showpieces such as ice sculptures, pastillage, marzipan, and fondant.
1 lecture / 3 laboratory hours

HOS 267 Event Planning 3 credits
Examines the various aspects required in planning and implementing meetings, expositions, conventions, and other events large and small. Along with methods and strategies for overall project management and organization, special emphasis addresses budgeting, promotion, and designing the event environment. 3 lecture hours

HOS 287 Hotel / Restaurant Management Internship 1 credit
Prerequisites: minimum GPA of 2.0 or permission of program coordinator; eligibility usually limited to students who have completed their second semester or with permission of the HRIM coordinator Supervised field experience in the operation and management of various departments or functional areas at selected hotels, restaurants, and institutions. Focus on leadership skills, human relations development, service in the hospitality industry, and reducing turnover with teamwork.
240 internship hours

HOS 289 Culinary / Pastry Arts Internship 1 credit
Prerequisites: minimum GPA of 2.0 or permission of program coordinator; eligibility usually limited to students who have completed their second semester or with permission of the HRIM coordinator Supervised field experience in the operation and management of various departments or functional areas at selected hotels, restaurants, and institutions. Focus on leadership skills, human relations development, service in the hospitality industry, and reducing turnover with teamwork. 400 internship hours

HPE — HEALTH / PHYSICAL EDUCATION

HPE 101 Basic Concepts of Nutrition 3 credits
Prerequisites: MAT 033 and ENG 024 or equivalent Study of the fundamental concepts of nutrition with emphasis on the relationships of nutrients to health. Topics include basic diet constituents, principles of body function, considerations for various age groups, dietary regulations, myths, food patterns, weight control, and food safety.
3 lecture hours

HPE 105 First Aid, CPR and AED 3 credits
Prepares rescuers and lay responders with the knowledge and hands-on skills necessary to safely minimize the consequences of injury and illness and help sustain life in an emergency until medical help arrives. Successful candidates earn Basic Life Saving Healthcare Provider CPR/AED and Heartsaver First Aid Certifications through the American Heart Association.
2 lecture / 2 laboratory hours

HPE 110 Concepts of Health and Fitness 2 credits
Prerequisite: ENG 033 or equivalent
Through lectures and laboratories, essential knowledge and skills in health and all dimensions of wellness are explored. Through self-assessments, students develop a wellness profile and program designed to achieve and/or maintain optimal livelong health and wellness. Physical activity is required. 1 lecture / 2 laboratory hours

HPE 111 Living with Health 3 credits
Prerequisite: ENG 034 or college-level proficiency in reading
Through self-assessments and critical thinking, students optimize their physical, psychological, social, intellectual and environmental well-being. Topics include health determinants, disease, disability, consumer education, health literacy, infectious and chronic diseases, aging, diversity, immediate and long-term effects of lifestyle choices including fitness, diet, stress management, destructive behaviors, dependency, and sexuality.
3 lecture hours

HPE 113 Medical Terminology 3 credits
Prerequisite: ENG 101 placement
Basic medical terms with an emphasis on general organizational principles. Topics include the use of prefixes, suffixes, and roots to convey meaning. Exercises provide practice with vocabulary, pronunciation, and report writing. Appropriate for students in nursing, allied health, and medical office assistant programs. 3 lecture hours

HPE 134 Prevention, Assessment and Care of Athletic Injuries 3 credits
Prerequisites: BIO 103, ENG 101 and HPE 110 or HPE 111
The art and science of athletic training with emphasis on relating theory and practice. Topics include terminology; injury prevention; and the causes, symptoms, and care of common sports injuries.
3 lecture hours

HPE 151 Introduction to Exercise Science 1 credit
A series of lectures, guest presentations, and student-initiated field interviews introduces the history and future of exercise science; the wide range of related careers; current issues in health, wellness, and fitness; and various professional and certifying organizations. 1 lecture hour

HPE 164 Principles of Coaching 3 credits
Introduces the art and science of coaching while relating theory and practice. Includes principles of coaching, management, physical conditioning, regulations, legal issues, safety, staffing, strategy, and public relations. Suitable for students contemplating further study in sports and leisure services. Prepares students for the American Sport Education Program (ASEP) Coaching Certification.
3 lecture hours

HPE 171 Personal Fitness 1 credit
Assists in the development of a personal fitness program including weight and cardiovascular fitness equipment. Emphasizes strength, flexibility, cardiovascular, and weight control. A medical history is required; a physical exam may be required. Full-time students who complete this course may use the Fitness Center free of charge.
1 lecture hour

HPE 241 Applied Exercise Physiology 3 credits
Prerequisites: BIO 103, ENG 101
Addresses anatomical, biomechanical, and physiological effects of physical activity on the human body as well as methods of assessment and how to design and implement exercise programs for individuals and groups. Lab activities include practical applications of theoretical concepts.
2 lecture / 2 laboratory hours

HPE 242 Exercise Measurement and Prescription 3 credits
Prerequisites: BIO 104, HPE 241
Emphasizes development of the protocol knowledge and skills necessary for appropriate assessments and exercise prescriptions which cater to the physical fitness needs of generally healthy populations, those with medical protocol considerations, and athletic populations.
2 lecture / 3 laboratory hours

HPE 243 Exercise Science Field Experience 3 credits
Prerequisite: HPE 242
Provides essential experiences and networking opportunities for 225 hours in a supervised exercise science setting suitable to student interests. Emphasizes career planning and the application of anatomy and physiology, basic nutrition, exercise measurement and prescription, exercise physiology, program management and promotion, and safety.

HRA — HEATING, REFRIGERATION AND AIR CONDITIONING

HRA 101 Principles of Refrigeration / Air Conditioning I 2 credits
Corequisite: MAT 037 (or MAT 037A and 037B) or equivalent proficiency
Fundamental principles of pressure and temperature relationships, heat transfer, and heating and cooling concepts. Specific topics include leak detection, types of refrigerants, piping materials, and connections. [Fall offering]
1 lecture / 2 laboratory hours

HRA 102 Principles of Refrigeration / Air Conditioning II 2 credits
Prerequisite: HRA 101
Corequisite: EET 130 or equivalent
Fundamental operating principles of compressors, condensers, and evaporators. Specific topics include types of metering devices, general accessory configuration, and procedures for charging and evaluating systems. [Fall offering]
1 lecture / 2 laboratory hours

HRA 103 Refrigeration / Air Conditioning Electrical Controls 4 credits
Prerequisites: EET 130, HRA 102
Examines types and application of various electromechanical devices such as motors, contractors, overload devices, thermostats, controls, and relays as well as various types of test and metering equipment. 2 lecture / 4 laboratory hours

HRA 104 Domestic Heating and Air Conditioning Systems 4 credits
Prerequisite: HRA 103
Operating fundamentals for the diagnosis and repair of various domestic heating and cooling units including window and central units, refrigerators, freezers, gas furnaces, and heat pumps.
2 lecture / 4 laboratory hours

HRA 202 Light Commercial Systems I 2 credits
Prerequisites: EET 130, HRA 103, HRA 104
Corequisite: HRA 203
Explores electrical and mechanical component configurations, including wiring and controls, for light commercial systems.
1 lecture / 2 laboratory hours

HRA 203 Light Commercial Systems II **2 credits**
Prerequisites: EET 130, HRA 104
Corequisite: HRA 202
Study of electromechanical light commercial system operation, diagnosis and repair, including piping configurations, defrost systems, pressure switches, and pressure regulators.
1 lecture / 2 laboratory hours

HRA 205 Heavy Commercial Systems **4 credits**
Prerequisite: HRA 104
Operation, maintenance, diagnosis, and repair of heavy commercial systems including electrical controls, mechanical components, and electrical circuitry. [Fall offering]
1 lecture / 4 laboratory hours

IST — INFORMATION SYSTEMS TECHNOLOGY

Note: Students should consult their academic advisor and the college or university to which they intend to transfer regarding information technology course requirements. The receiving institution always makes the final decision concerning transferability of credits.

IST 033 Tech Studio **2 credits**
Prerequisite: instructor or advisor permission
An introductory hands-on computer technology course for students who have had little or no exposure to computers. Topics include the basics of operating systems, the Internet, word processing, multi-media, the cloud, programming, and e-mail. Students develop file management skills and work with web-based applications.
1 lecture / 2 laboratory hours

GenEd TECHNOLOGY

IST 101 Computer Concepts/ Applications **3 credits**
Prerequisites: ENG 101 and MAT 037 or MAT 015
Introduces students to computer concepts and applications through both lecture and lab materials. Lectures focus on hardware and software, the Internet, multimedia, security and ethics issues, and information. Lab addresses in-depth exposure to Excel spreadsheet and Python software program language. 2 lecture / 2 laboratory hours

GenEd TECHNOLOGY

IST 102 Computer Concepts with Programming **3 credits**
Prerequisites: ENG 034; MAT 037 (or MAT 037A and 037B) or equivalent proficiency
An introduction to computer literacy including a programming laboratory. Lectures cover the Internet; software; system components; peripherals; communications; databases; security, ethics, and privacy; programming languages; and enterprise computing. The laboratory covers forms, menus, decisions, loops, arrays, searching, the user interface, and database programming with Java.
2 lecture / 2 laboratory hours

IST 105 Information Security Concepts and Principles **4 credits**
Students gain an understanding of information security concepts and principles. Legal and ethical issues related to cybersecurity are covered. Case studies provide practical skills in securing systems and data. Designed for all users of technology wanting to learn the basics of protecting information and systems in today's digital world.
4 lecture hours.

IST 108 Introduction to Programming with Mobile Application Development **4 credits**
Prerequisite: MAT 037 or MAT 042 or proficiency in basic algebra
Introduces computing and programming concepts, and explores mobile and web technologies. Topics include variables, decision-making, iteration, lists, functions, decomposition, event-driven programming, databases, client-server computing, web services, platforms, programming languages, animation, texting, and geolocation. Students learn by creating Android mobile applications using App Inventor, a visual programming language. 3 lecture / 2 laboratory hours

GenEd TECHNOLOGY

IST 109 Introduction to Programming **3 credits**
Prerequisites: proficiency in basic algebra, MAT 037 (or MAT 037A and 037B)
Introduces fundamental programming structure, tools and documentation, including how to design interfaces and develop Task Object Event (TOE) and Object Properties and Settings charts, hierarchy charts, pseudocode, and flowcharts. Problem-solving techniques and program design using logic control structures of sequence, selection, iteration, arrays, and sequential files are emphasized in laboratory exercises using VB.NET.
2 lecture / 2 laboratory hours

IST 110 Introduction to Python 3 credits
Prerequisite: IST 101 or IST 102
Designed for students majoring in Computer Information Systems or those with little or no programming background. Python is a widely used interpreted, object-oriented programming language focused on readability and code optimization with a simple, easy to learn syntax. This course is designed for students with basic programming experience in an object-oriented language.
2 lecture / 2 laboratory hours

IST 140 The Internet and Computer Technology 3 credits
Prerequisite: computer literacy
Introduction to Internet technology and the use of the World Wide Web as a tool. Topics include Internet and web history, client-server networks, web browsers, search engines and queries, multimedia, electronic commerce, social networking utilities, electronic mail, and computer security. Students design a web page using HTML.
2 lecture / 2 laboratory hours

IST 144 Website Development 4 credits
Introduces website development skills. Thorough examination of Hypertext Markup Language (HTML) includes navigations, tables, Cascading Style Sheets (CSS), images, audios, videos, and forms. Students learn the latest web design and development technologies including HTML5, CSS3, JavaScript, and jQuery.
3 lecture / 2 laboratory hours

IST 208 Android Application Development 4 credits
Prerequisite: COS 102 or equivalent
Teaches how to develop applications for Android devices using Java programming language along with the Android SDK. Students learn how to apply Java and object-oriented technology to mobile application development. Doing real projects within the Eclipse integrated development environment further advances practical programming knowledge and skills.
3 lecture / 2 laboratory hours

IST 209 Project Management Concepts 3 credits
Cultivates strategies to orchestrate carefully designed action plans to complete projects successfully, often incorporating complex, dynamic and changing requirements. Explores the management of technology, people, and change to achieve goals, reach targets, and deliver the project on time and within budget.
2 lecture / 2 laboratory hours

IST 218 iOS Application Development 4 credits
Prerequisite: COS 102 or equivalent
Introduces the tools and skills needed to create apps for iPhone and iPad. Students learn the Swift programming language and use it with Xcode to create apps on the iOS platform. The course uses Apple's latest "Everyone Can Code" college curriculum with hands-on, real world projects.
3 lecture / 2 laboratory hours

IST 244 Web Application Development 4 credits
Prerequisite: one of the following: IST 144, IST 108, IST 109, COS 101, COS 102, DMA 145 or equivalent
Introduction to server-side programming and database integration contributes to the creation of dynamic and interactive web applications. Primary programming languages and technologies covered include ASP.NET, C#, SQL Server, and MVC (Models, Views and Controllers) programming model.
3 lecture / 2 laboratory hours

IST 250 Decision Support Using MS Excel 4 credits
Prerequisites: IST 102, IST 109, IST 123
Techniques for building complete Excel-based decision support systems in a highly accessible manner. Topics include referencing and names, functions and formulas, charts, pivot tables, macros, programming structures, building user interfaces, and VBA for optimization and simulation. The extended functionality topics include statistical analysis, the Solver and modeling, simulation, and working with large datasets.
3 lecture / 2 laboratory hours

IST 251 Management of Computer Technology 3 credits
Prerequisite: completion of 30 credits toward Information Systems or Information Technology degree program
Explores solutions to the challenges facing a typical computer technology manager, including project life-cycles, security, access, end-user computing, project planning, scheduling, staffing, employee development, and external threats to private computers. 2 lecture / 2 laboratory hours

IST 253 Database Concepts 3 credits
Prerequisite: IST 102 or IST 109
Covers relational database technology and how to apply it in solving basic and advanced database problems and cases. Provides the foundation for the advanced study of individual database management systems, electronic commerce, and enterprise computing.2 lecture / 2 laboratory hours

IST 256 Systems Analysis 3 credits
An introduction to systems analysis and design, including analyzing the business case, requirements modeling, and development strategies. Additionally covers output and user interface design, data design, systems architecture and implementation, and systems operation, support, and security.
2 lecture / 2 laboratory hours

IST 265 Database Cloud Computing Concept 3 credits
Prerequisites: IST 109, IST 253
Corequisite: IST 262
Teaches database deployment using cloud platforms to program and administer databases in a variety of cloud computing scenarios while managing the platform for scalability, troubleshooting performance issues, and implementing strong security. 2 lecture / 2 laboratory hours

IST 275 Data Analytics and Visualization 3 credits
Prerequisite: Basic knowledge of Excel
Students acquire a detailed knowledge of descriptive statistics while learning how to use MS Excel to clean, manipulate, and interpret real world data sets with the goal of creating readable, well-constructed data visualization dashboards.
2 lecture / 2 laboratory hours

IST 298 Information Systems Cooperative Education 2 credits
Prerequisite: final course for degree in Information Technology
Integration of classroom study with specific planned period of learning through job experience. Based on individualized learning contract.
180 work experience hours

ITA — ITALIAN

Note: Students who have taken two or more years of a foreign language, and have done so in the last two years, should begin that language at the 200 level or switch to a new language. If there is doubt, placement will be determined by testing or consultation with the academic division.

GenEd HUMANITIES

ITA 101 Beginning Italian I 3 credits
Spoken communication in Italian is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced. 3 lecture hours

GenEd HUMANITIES

ITA 102 Beginning Italian II 3 credits
For students who either completed ITA 101 or have otherwise gained elementary prior knowledge of Italian. Spoken communication in Italian is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced. 3 lecture hours

GenEd HUMANITIES

ITA 201 Intermediate Italian I 3 credits
For students who have either completed ITA 102 or have otherwise acquired prior reading and speaking abilities in Italian at a high-novice level. Reading, writing, listening, and speaking are the means and goal of instruction. Vocabulary and grammar practiced on topics of culture, politics, and history. 3 lecture hours

GenEd HUMANITIES

TA 202 IntermediateItalian II 3 credits
For students who have either completed ITA 102 or have otherwise acquired prior reading and speaking abilities in Italian at a high-novice level. Reading, writing, listening, and speaking are the means and goal of instruction. Vocabulary and grammar practiced on topics of culture, politics, and history. 3 lecture hours

JPN — JAPANESE

Note: Students who have taken two or more years of a foreign language, and have done so in the last two years, should begin that language at the 200 level or switch to a new language. If there is doubt, placement will be determined by testing or consultation with the academic division.

GenEd HUMANITIES

JPN 101 Beginning Japanese I 3 credits
Spoken communication in Japanese is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced. 3 lecture hours

GenEd HUMANITIES

JPN 102 Beginning Japanese II 3 credits
For students who either completed JPN 101 or have otherwise gained elementary prior knowledge of Japanese. Spoken communication in Japanese is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced. 3 lecture hours

LAS — LIBERAL ARTS STUDIES

LAS 100 The Human Experience 2 credit
By reading , writing in response to, and discussing humanistic works from a variety of cultural traditions and historical eras, students develop lifelong skills central to their academic, professional, and personal lives. Through consideration of their experience and those of others, students investigate their own human journey. 1 lecture hour

LAS 101 Introduction to Liberal Arts Studies 1 credit
Introduction to reading and inquiry in the social sciences and humanities. By exploring a common book-length reading, students build interdisciplinary knowledge and skill in critical reading and response, including discussion, interpretation, and writing. For first-year Liberal Arts majors needing one credit for full-time status; often paired with CSW 100. 1 lecture hour

LAS 201 Liberal Arts Special Topics 1 credit
Investigation of a specialized liberal arts topic chosen by individual instructors, allowing students to delve into a focused interest. Recommended for second-year students who need one credit and wish to engage in close study. Upcoming topics available in the Liberal Arts Division office each semester before class registration begins.
1 lecture hour

LAS 225 Liberal Arts Studies Internship 1 credit
Prerequisites: 3.0 GPA, permission of internship advisor
Liberal Arts program students in their last 30 credits gain practical experience in an approved social science or humanities-related setting outside of the college, guided by a faculty internship advisor. Interns demonstrate their ability to apply liberal arts concepts and objectives via employer evaluation, written self-evaluation, and discussion with advisor.
60 hours including supervised internship, independent work, and advisor meetings

ITA — ITALIAN

Note: Students who have taken two or more years of a foreign language, and have done so in the last two years, should begin that language at the 200 level or switch to a new language. If there is doubt, placement will be determined by testing or consultation with the academic division

GenEd HUMANITIES

LAT 101 Beginning Latin I 3 credits
For students with little or no prior knowledge of Latin. Reading comprehension of literary and scholarly texts in Latin being the end goal, emphasizes the communicative skills of reading and writing based on culturally authentic texts. Grammar is thoroughly introduced and analyzed. Some spoken communication in Latin is practiced.
3 lecture hours

LEG — LEGAL STUDIES

LEG 129 Role of the Legal Profession 3 credits
Study of the relationship among paralegals, attorneys, and clients particularly as it relates to law office economics, legal ethics, and confidentiality. Stages in a civil lawsuit and a criminal prosecution are examined; legal interviewing, investigation, and an orientation to legal research are stressed.
3 lecture hours

LEG 130 Civil Litigation I 3 credits
Study of the law of torts designed to acquaint the paralegal with the various forms of tort actions encountered in the law office.
3 lecture hours

LEG 132 Civil Litigation II 3 credits
Prerequisite: ENG 101 with a minimum C grade
Overview of the litigation process covering the pleadings of cases from initial complaint through ultimate judgment, with emphasis on tasks performed by paralegals. Addresses medical terminology and rules of evidence. 3 lecture hours

LEG 133 Legal Research and Writing 3 credits
Prerequisite: ENG 101
Study of basic skills often required in the general practice of law. Utilizing computer-assisted legal research, includes an introduction to several common kinds of legal writing with an emphasis on that which the paralegal encounters on a day-to-day basis in a law office. 3 lecture hours

LEG 143 Family Law 3 credits
Survey of procedures and pleadings in domestic relations including the preparation of divorce complaints, answers, counterclaims, motions, disclosure statements, and property settlement agreements. Includes issues of custody, visitation rights, child support and maintenance, adoptions and name changes. [Spring offering] 3 lecture hours

LEG 255 Ethics and Professionalism 3 credits
Prerequisite: LEG 129
A legal technology enhanced capstone course with a focus on advanced legal research and writing. Covers legal ethics rules on professionalism, UPL, confidentiality, client funds, solicitation of cases, competence, and case conflicts. Applying CIRAC/IRAC analysis principles, students research the law and Model Rules and prepare an analysis of legal ethics issues. 3 lecture hours

LEG 256 Career Development for Law and Justice Professionals 1 credit
Students prepare essential documents for the job market correlating to their major (Criminal Justice A.S. degree or Paralegal Studies A.A.S.) including resumes, cover letters, and professional emails. Students learn networking skills, job search strategies, and interviewing techniques. 1 lecture hour

LEG 258 Research and Project Management: Legal, Business, and Justice Applications 3 credits
Enhanced research and project management principles as applied to support roles in legal, corporate, and justice employment settings. Applying technology, research, and effective project management skills, students manage projects in the areas of factual investigation, business formation, justice administration, and civil matters. Legal specialty course. 3 lecture hours

LIB — LIBRARY TECHNOLOGY

LIB 103 Introduction to Academic Research 1 credit
Prerequisite: eligibility for placement in ENG 101
Basic principles of scholarly research and inquiry. Focuses on information literacy skills needed for developing effective search processes and critical evaluation of academic resources, plus the ethical use of information. Students are introduced to multi-disciplinary resources includimg periodical databases, books, e-books, multimedia, reference sources, and web-based information.
1 lecture / 1 laboratory hours

MAT — MATHEMATICS

Note: Students should check mathematics course recommendations with the college or university to which they intend to transfer. The receiving institution always makes the final decision concerning transferability of credits. Information about mathematics course equivalencies among New Jersey institutions is available at www.njtransfer.org Initial selection of a mathematics course is determined by results of college skills placement testing. Students who have completed math courses at another college must present transcripts and course outlines or syllabi. Consult mathematics faculty for advice. Applicability of credits for courses below the 100 level toward degree requirements is limited. Consult an academic advisor. All prerequisite courses must be passed with a minimum C grade before enrolling in any subsequent mathematics course.

MAT 007 Beginning Algebra Support 1 credits
Corequisite: MAT 037
A supplemental course that provides individualized and focused instruction for select skills to support progress in MAT 037 - Beginning Algebra. Topics include solving linear equations and inequalities, graphing linear equations, operations with integers, operations with rational numbers, and simplifying perfect squares and radicals.
1 lecture hour

MAT 008 Intermediate Algebra for STEM Support 1 credit
Corequisite: MAT 038
A supplemental course that provides individualized and focused instruction for select skills to support progress in MAT 03* - Intermediate Algebra for STEM. Topics include graphing and solving linear equations factoring polynomials, operations with rational numbers, simplifying radical expressions, and simplifying quadratic expressions.
1 lecture hours

MAT 015 Beginning Algebra for Non-STEM 2 credits
Beginning algebra course designed for students with experience in algebra needing to strengthen their mastery of the fundamentals. Topics include exponents; linear equations and inequalities; algebraic operations with whole numbers, decimals, fractions, and percents; ratio and proportion; graphing; and square roots. 2 lecture hours

MAT 033 Pre-Algebra 4 credits
Developmental mathematics course designed for students needing a review of basic arithmetic, including an introduction to algebra. Topics include operations with whole numbers, decimals, fractions, percents, ratio and proportion, signed numbers, and an introduction to algebraic equations. [Foundation course does not fulfill mathematics elective requirement; only offered by special request at off-campus locations.] 4 lecture hours

MAT 037 Beginning Algebra 4 credits
Foundation mathematics course designed for students with experience in algebra but who need to strengthen their mastery of the fundamentals. Topics include exponents, polynomials, factoring, graphing first-degree equations, quadratic equations, rational expressions, and radical expressions. [Foundation course does not fulfill mathematics elective requirement.] 4 lecture hours

MAT 038 Intermediate Alegebra for STEM 4 credits
Prerequisite: MAT 037 or MAT 042 with a minimum C grade or placement by Mathematics department
Developmental mathematics course designed for students needing an introduction to intermediate algebra. Topics include graphing linear equations in two variables, systems of two linear equations, rational expressions ande equations, radicals and rational exponents, and linear and quadratic functions. Those who complete this course with a grade of C or better may register for MAT 146. [Foundation course does not fulfill mathematics elective requirement.] 4 lecture hours

MAT 042 Foundation Math for Non-STEM 3 credits
Prerequisite: MAT 041 with a minimum C grade or appropriate placement test score
Foundation mathematics course designed for students with experience in algebra but who need to strengthen their mastery of the fundamentals. Topics include linear equations, linear inequalities, absolute value equations, absolute value inequalities, exponents, polynomials, factoring, and quadratic equations. Those who complete this course may register for MAT 115, MAT 120, or MAT 125. [Foundation course does not fulfill mathematics elective requirement.] 6 laboratory hours

MAT 044 Foundation Math for STEM 3 credits
Prerequisite: MAT 037 or MAT 042 with a minimum C grade
Developmental mathematics course designed for students needing an introduction to intermediate algebra. Topics include graphing linear equations in two variables, systems of two linear equations, rational expressions and equations, radicals and rational exponents, and linear and quadratic functions. Those who complete this course with a grade of C or better may register for MAT 146. [Foundation course does not fulfill mathematics elective requirement.] 6 laboratory hours

GenEd MATHEMATICS

MAT 115 Algebra and Trigonometry I 3 credits
Prerequisite: MAT 037 (or MAT 037A and 037B) or MAT 042 or appropriate placement test score
Primarily for students majoring in engineering technology related programs. Algebraic topics discussed include systems of linear equations, determinants, factoring, trigonometric functions and their graphs, radian measure, solutions of triangles, and application problems. 3 lecture hours

GenEd MATHEMATICS

MAT 116 Algebra and Trigonometry II 3 credits
Prerequisite: MAT 115 with a minimum C grade or permission of the Mathematics department
Continuation of MAT 115. Topics include complex numbers, logarithmic and exponential functions, solving systems of nonlinear equations, trigonometric identities and equations, inverse trigonometric functions, and analytic geometry.
3 lecture hours

GenEd MATHEMATICS

MAT 120 Mathematics for Liberal Arts 3 credits
Primarily for students in non-scientific/non-technical majors, emphasizes mathematical systems, reasoning, and mathematical structures. Includes sets, symbolic logic, numeration systems, number systems in other bases, with either consumer math/finance or probability. 3 lecture hours

GenEd MATHEMATICS

MAT 125 Elementary Statistics I 3 credits
Prerequisite: MAT 015
A basic introduction to statistical concepts and methods. Topics include descriptive statistics, basic probability concepts, discrete and normal probability distributions, hypothesis testing and confidence intervals with one sample mean and one sample proportion, as well as regression and correlation. Studies include the use of statistical software.
3 lecture hours

GenEd MATHEMATICS

MAT 126 Elementary Statistics II 3 credits

Prerequisite: MAT 125 with a minimum C grade or consultation with course coordinator / Mathematics chairperson

Continuation of MAT 125. Topics include random sampling, experimental and observational studies, fundamentals of probability, confidence intervals and hypothesis testing on two populations and two proportions, F and Chi-Square distributions, analysis of variance, and basic nonparametric tests. Studies include the use of statistical software.

3 lecture hours

GenEd MATHEMATICS

MAT 140 Applied College Algebra 4 credits

Prerequisite: MAT 037 (or MAT 037A and 037B) or MAT 042 with a minimum C grade or appropriate placement test score

Designed for students majoring is disciplines involving less intensive math, for which a more conceptual understanding of college algebra is appropriate. Employing extensive examples from a variety of fields, topics include the study of linear, exponential, logarithmic, polynomial and rational functions. Not intended as preparation for Pre-Calculus or Calculus. **3 lecture / 1 laboratory hours**

GenEd MATHEMATICS

MAT 146 Pre-Calculus 4 credits

Prerequisite: MAT 038 or MAT 044 with a minimum C grade or appropriate College Level Math placement test score

In-depth study of polynomial, rational, exponential, logarithmic, trigonometric and inverse trigonometric functions, equations, and identities; systems of equations including matrices; extensive use of graphing calculators. [grade of B- or better is strongly recommended to proceed to MAT 151]

4 lecture hours

GenEd MATHEMATICS

MAT 149 Calculus 4 credits

Prerequisite: MAT 146 with a minimum C grade or appropriate College Level Math placement test score

Application-based topics include the fundamental techniques of differentiation and integration of algebraic, trigonometric, exponential and logarithmic functions. Study focuses on optimization, maxima-minima and marginal analysis for differentiation and includes substitution method among other specific integration techniques. Not intended as a prerequisite for MAT 152. **4 lecture hours**

GenEd MATHEMATICS

MAT 151 Calculus I for the Mathematical and Physical Sciences 4 credits

Prerequisite: MAT 146 with a minimum C grade or appropriate College Level Math placement test score

First course in the standard integrated calculus sequence. Topics include differentiation of algebraic, exponential, logarithmic, trigonometric, hyperbolic, and inverse trigonometric functions. Applications include curve sketching, related rates, maxima, minima, and approximations as well as integration and applications of the definite integral. **4 lecture hours**

GenEd MATHEMATICS

MAT 152 Calculus II for the Mathematical and Physical Sciences 4 credits

Prerequisite: MAT 151 with a minimum C grade and consultation with Mathematics faculty member

Continuation of MAT 151. Topics include techniques of integration, areas, volumes, arc length, surface area, improper integrals, Simpson's Rule, infinite sequences, MacLaurin and Taylor series, differentiation of polar and parametric equations, conic sections in rectangular and polar form, and rotation of axes. **4 lecture hours**

GenEd MATHEMATICS

MAT 200 Statistics for Social and Health Sciences I 3 credits

Prerequisite: MAT 038 or MAT 044 or Multiple Measures placement

An applied statistics course for the social sciences, nursing, etc. Topics include sampling procedures, descriptive statistics, regression and correlation, discrete, binomial and normal probability distributions, confidence intervals and hypothesis tests for one mean, two means, one proportion, and two proportions, one-way and two-way ANOVAs, goodness-of-fit tests and tests of independence. Uses Minitab statistical software. **3 lecture hours**

GenEd MATHEMATICS

MAT 201 Probability and Statistics for Science and Engineering 4 credits

Prerequisite: MAT 151 or MAT 149 with a minimum C grade

Calculus-based course designed for engineers, computer scientists and science majors with emphasis on applications of statistical techniques to the analysis of data. Topics include descriptive statistics; probability theory; probability distributions including binomial, Poisson, uniform, exponential, normal, chi square; one and two variable mean and proportion data analysis, simple regression and correlation and analysis of variance. Requires use of Minitab statistics software. **4 lecture hours**

GenEd MATHEMATICS

MAT 208 Linear Algebra 4 credits

Prerequisite: MAT 151 with a minimum C grade and consultation with Mathematics faculty member

An introduction to linear algebra topics including linear equations and matrices, determinants, independence and basis, vector spaces and subspaces, the four fundamental subspaces, orthogonality, linear transformations and eigenvalues and eigenvectors. Applications of linear algebra are included. **4 lecture hours**

GenEd MATHEMATICS

MAT 251 Calculus III 4 credits

Prerequisite: MAT 152 with a minimum C grade and consultation with Mathematics faculty member

Continuation of MAT 152. Includes parametric equations, vectors, solid analytic geometry, partial derivatives, multiple integrals, and topics in vector calculus including Green's theorem and Stoke's theorem. **4 lecture hours**

GenEd MATHEMATICS

MAT 252 Differential Equations 4 credits

Prerequisite: MAT 152 with a minimum C grade and consultation with Mathematics faculty member

Topics include solutions of ordinary differential equations, solving linear differential equations of higher order using differential operators, methods of undetermined coefficients and variation of parameters. Strong emphasis on solving differential equations using the Laplace transform, Cauchy-Euler equation, infinite series, and matrix methods. Applications to geometry and physical science are discussed. **4 lecture hours**

1 lecture / 1 laboratory hours

MET — MANUFACTURING ENGINEERING TECHNOLOGY

MET 101 Machine Shop Techniques I 3 credits

Introduces students to manufacturing careers, shop safety, manufacturing operations. Topics include shop safety, mechanical hardware and shop tools, sawing, grinding, layout, hole making, and thread cutting. Corresponding labs reinforce lectures with practical examples.

2 lecture / 3 laboratory hours

MET 102 Machine Shop Analysis Methods 3 credits

Prerequisite: MAT 115

Introduces students to the algebraic, geometric, and trigonometric concepts essential to solving problems commonly encountered in machine shop environments. Review of arithmetic followed by elements of measurement, algebra, graphing, geometry, and introductory trigonometry.

3 lecture hours

MET 103 Engineering Principles for Manufacturing 2 credits

Prerequisite: DRA 190 and MAT 115

Introduces students to elementary mechanical engineering topics utilized in manufacturing, including Finite Element Analysis, Statics, Dynamics, Heat Transfer, Fluid Mechanics, Mechanical Shock and) Vibration, Mechanical Testing and Test Plans/Reports

1 lecture / 2 laboratory hours

MET 101 Metal Forming/Fabricating and Finishing 3 credits

Prerequisite: MET 101

Introduces students to the theory and practical concepts of metal cutting and nesting, bending. Topics include : shop safety, Shears, Brakes, Plasma cutting, Laser cutting, Waterjet cutting processes, finishing processes including powder coating, anodizing, electropolishing, chemical conversion coating, welding/weldments, robotic welding, MIG, TIG, stick welding. Corresponding labs reinforce lectures with practical examples which follow SME certification requirements.

2 lecture / 3 laboratory hours

MET 122 Metrology and Quality Control 3 credits

Prerequisites: MAT 125

Introduces students to Blueprint Reading, GD & T tolerancing, measurements and measuring equipment/tools including CMM, the subject of statistical process control (SPC). Course focus on basic concepts that includes process flowcharting, check sheets/tally charts, histograms, graphs, Pareto analysis, cause and effect analysis, scatter diagrams, control charts and process capability.

3 lecture hours

MET 220 Material and Manufacturing Process 3 credits

Prerequisite: MET 110

Introduces students to the study of engineering material and manufacturing process. Topics include physical and mechanical properties of metals, ceramics, composites and plastics, classification of steels, manufacturing processes: casting, welding, stamping, bending, Forging, soldering, Brazing (vacuum, Induction, Dip brazing types) and manufacturing costs. 3D Printing of Plastics and Metals, all processes and materials as they are invented/ developed. 3 lecture hours

MET 231 Introduction to Computer Numerically Controlled Machines 3 credits

Prerequisites: MET 110/MET 102

Introduces the theory and practical concepts of computer numerically controlled machining equipment used in industry to manufacture extremely precise machined products by subtractive manufacturing. Topics include CNC equipment and terminology, G and M code familiarization and machine tool safety practices. Corresponding labs reinforce lectures with practical hands-on examples which follow S.ME certification requirements.

2 lecture / 3 laboratory hours

MET 232 Joining, Fastening, Welding 3 credits

Prerequisite: MET 220

Investigates advanced theory and practical applications of a wide range of materials joining/bonding adhesives, mechanical fastening technologies, and several welding processes to reinforce lectures with practical hands-on examples which follow SME and AWS Certification requirements.

2 lecture / 3 laboratory hours

MET 290 Advanced Manufacturing Technology Internship 2 credits

Prerequisite: coordinator approval

Introduces students to work experience in a manufacturing environment.

100 work experience hours

MET 291 Manufacturing Engineering Technology Internship 3 credits

Prerequisite: AMT 231

Exposes students to advanced practices of machining. Topics include machine shop safety, turning machines, vertical and horizontal milling machines, grinding and abrasive machining processes. Corresponding internship hours reinforce lectures with practical examples which follow NIMS certification requirements. This course can be waived upon the completion of a 6-week internship in a machine shop environment.

1 lecture / 6 internship hours

MKT — MARKETING

MKT 101 Principles of Marketing 3 credits

Prerequisite: ENG 101 with a minimum C grade

A study of the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services that satisfy individual and organizational objectives.

3 lecture hours

MKT 106 Introduction to Sports Marketing 3 credits

Prerequisite: ENG 101 with a minimum C grade

Exploration of the comprehensive nature of sports marketing from a strategic marketing perspective. Examination of basic and detailed concepts covers such areas as sponsorships, branding, promotions, public relations, licensing, and consumer research and behavior, including their effects on professional, intercollegiate and other areas of sport.

3 lecture hours

MLA — MEDICAL LABORATORY ASSISTANT

MLA 101 Medical Laboratory Assistant Training 2 credits

Prerequisite: acceptance into Medical Laboratory Technology program

Supervised experience in the performance of venipuncture and microcollection techniques in a clinical facility. Emphasis on patient interaction and application of universal precautions, proper collection techniques, special procedures, specimen handling, and data management. Upon completion, students should be able to safely perform procedures necessary for specimen collections on patients in various health care settings.

1 lecture / 3 laboratory hours

MLA 110 Medical Laboratory Assisting 5 credits

Prerequisite: PBT 101

This course provides students with essential skills for specimen collection, processing, and handling in clinical labs. Students learn laboratory safety, equipment use, quality control, and basic testing like urinalysis and point-of-care testing. Emphasis is placed on professionalism, regulations, ethics, and proper documentation of patient data, with and without information systems. 5 lecture hours

MLA 102 Medical Laboratory Assistant Practicum 3 credits

Prerequisite: MLA 101

Practical experience in the role of a medical laboratory assistant at clinical sites, under direct supervision by an instructor and staff at a local healthcare facility. 135 studio hours

MLT — MEDICAL LABORATORY TECHNOLOGY

Except as noted, enrollment in MLT courses is limited to students who have completed all basic skill requirements and who have received full acceptance into the professional phase of the program. The minimum passing grade for all MLT courses is C+.

MLT 112 Introduction to Medical Laboratory Technology 3 credits
Prerequisite: permission of program coordinator
Basic principles, techniques, and vocabulary applicable to medical laboratory technology. Topics include lab safety, specimen collection and transport, phlebotomy, urinalysis, immunology/serology, and computer technology as well as an overview of the four major laboratory disciplines of hematology/coagulation, immunohematology, chemistry, and microbiology. The laboratory component develops laboratory skills related to the lecture topics. **2 lecture / 3 laboratory hours**

MLT 200 Clinical Chemistry 4 credits
Prerequisite: permission of program coordinator
Principles and theory of chemical analysis performed on clinical specimens. In-depth study examines specimen processing, analysis, test interpretation, and quality control procedures used in routine manual and automated clinical chemistry testing. Laboratory exercises involve bench techniques, dilutions, and test procedures. Group presentations highlight various chemistry analyzers.
3 lecture / 2 laboratory hours

MLT 207 Clinical Immunohematology 4 credits
Prerequisite: permission of program coordinator
Basic theory and concepts of antigen-antibody reactions as they pertain to blood cell transfusions. Blood group antigens and the genetics of their inheritance are examined along with principles of immunology. Methods are introduced for performing blood grouping, compatibility testing, and component selection. The laboratory component develops technical skills through hands-on experience in blood bank procedures.
3 lecture / 3 laboratory hours

MLT 212 Clinical Hematology 4 credits
Prerequisite: permission of program coordinator
Study of blood cells in bone marrow, peripheral blood, and body fluids. Normal and abnormal blood cell maturation, physiology, and morphology are examined along with coagulation, another branch of hematology, involving hemostasis (the stopping of blood flow). The laboratory component develops technical skills used to perform hematology and coagulation lab tests.
3 lecture / 3 laboratory hours

MLT 214 Clinical Microbiology 6 credits
Prerequisite: permission of program coordinator
Principles and methods used in diagnostic microbiology. Test procedures routinely applied in medical bacteriology, parasitology, mycology, and virology are covered with an emphasis on the isolation, identification, and antimicrobial susceptibility testing of pathogenic microorganisms. Immunologic and molecular methods used for infection agent identification are also covered.
5 lecture / 3 laboratory hours

MLT 215 Clinical Practice 10 credits
Prerequisites: MLT 112, MLT 200, MLT 207, MLT 212, MLT 214, or permission of program coordinator
Clinical practice at an affiliated facility under the direction and supervision of laboratory educators. Students conduct routine analytical procedures, develop laboratory skills, apply knowledge of testing principles, and demonstrate acquired laboratory competencies. Includes presentation of a laboratory case study correlating test results with clinical condition. **560 clinical hours**

MLT 216 Clinical Competency 1 credits
Prerequisites: MLT 112, MLT 200, MLT 207, MLT 212, MLT 214
This course offers a cumulative review of medical laboratory science theory and practice,preparing students for clinical rotations and the National Certification Exam. Through online and lab sessions, students engage in simulated practice, case studies, resume writing, mock interviews, and certification prep to enhance competencies, critical thinking, and job-readiness. **1 lecture hours**

MLT 217 Clinical Practicum 1 credits
Prerequisites: MLT 112, MLT 200, MLT 207, MLT 212, MLT 214
This clinical practicum allows students to apply phlebotomy and specimen processing skills in a controlled lab environment. Students will practice specimen collection, preparation, processing, and handling, including specimen acceptability, ordering, accessioning, aliquoting, transport, and distribution to in-house and reference laboratories.
1 lecture hours

MLT 218 Clinical Practicum II 3 credits
Prerequisites: MLT 112, MLT 200, MLT 207, MLT 212, MLT 214, MLT 216
This clinical practicum allows students to apply core laboratory skills (urinalysis, clinical chemistry, and hematology) in a controlled lab environment. Students conduct routine analytical procedures, develop laboratory skills, apply knowledge of testing principles, and demonstrate acquired laboratory competencies that were gained during the professional phase courses of the program. Performance objectives and task checklists are used in each department to assess acquired laboratory competencies. **3 lecture hours**

MLT 219 Clinical Clinical Practic Practicum III 3 credits
Prerequisites: MLT 112, MLT 200, MLT 207, MLT 212, MLT 214, MLT 216
This clinical practicum allows students to apply core laboratory skills of Immunohematology (Blood Banking) in a controlled lab environment. Students conduct routine analytical procedures, develop laboratory skills, apply knowledge of testing principles, and demonstrate acquired laboratory competencies that were gained during the professional phase courses of the program. Performance objectives and task checklists are used in each department to assess acquired laboratory competencies. Includes presentation of a laboratory case study correlating test results from different departments with a clinical condition.
3 lecture hours

MLT 220 Clinical Practicum IV 3 credits
Prerequisites: MLT 112, MLT 200, MLT 207, MLT 212, MLT 214, MLT 216
This clinical practicum allows students to apply core laboratory skills of Clinical Microbiology in a controlled lab environment. Students conduct routine analytical procedures, develop laboratory skills, apply knowledge of testing principles, and demonstrate acquired laboratory competencies that were gained during the professional phase courses of the program. Performance objectives and task checklists are used in each department to assess acquired laboratory competencies. Students will also take a Comprehensive Assessment that simulates the national certification exam.
3 lecture hours

MOA — MEDICAL OFFICE ASSISTANT

MOA 101 Medical Ethics and Office Procedures 3 credits
Prerequisite: ENG 101
Focuses on administrative skills necessary for work in a medical office. Includes communicating with patients, telephone management, organizing and maintaining records, coordinating appointments, and legal and ethical issues. Students use medical management software for scheduling and records management. 3 lecture hours

MOA 103 Medical Billing and Coding Procedures 3 credits
Prerequisite: ENG 101
Extensive coverage of CPT and ICD-9-CM coding procedures. Students learn to abstract information from the patient record and combine it with reimbursement and coding guidelines to optimize physician payment. 2 lecture / 2 laboratory hours

MUS — MUSIC

GenEd HUMANITIES

MUS 103 Introduction to Music 3 credits
Enhances the student's knowledge and enjoyment of a variety of music styles and historical contexts through listening and discussion. Requires attendance at live concerts. No prior musical training necessary.
3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

MUS 155 History of Jazz and Blues 3 credits
Study of the evolution of jazz and blues from their origins in West African music and dance to their development as major 20th century art forms. Examines the significant stylistic phases of jazz from early blues and ragtime through swing and bebop to avant garde and fusion. Also explores the impact of the African American tradition on contemporary rock and pop music. 3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

MUS 156 History of American Pop Music 3 credits
Analytical and historical survey of American popular music with an emphasis on the period from 1950 to the present. Students develop an understanding of the cultural, social, technological, and musical forces shaping each decade covered. Students apply critical analysis to musical styles, instrumentation, and song structure in addition to issues of race, ethnicity, social class, and gender as formative factors influencing its evolution.
3 lecture hours

GenEd HUMANITIES

MUS 224 Music History and Literature I – Antiquity Through Baroque 3 credits
Prerequisites: MUS 103 and MUS 105 or equivalent experience
Study of the evolution of Western European music from its ideological and practical origins in ancient Greece and Rome through the Medieval, Renaissance, and Baroque periods, in the context of sociohistorical forces and events affecting its development. Basic music theory background desirable.
3 lecture hours

GenEd HUMANITIES

MUS 225 Music History and Literature II – Baroque Through Modern **3 credits**
Prerequisite: MUS 224
Continued study of the evolution of Western European music from the classical period, with its roots in the Enlightenment and culmination in Romanticism, through its variegated manifestations in the 20th century. Basic music theory background desirable.
3 lecture hours

MUS 105 Fundamentals of Music Theory **3 credits**
Offers the student with no prior musical training an introduction to the basics of music theory. Topics include notation of pitch and rhythm, scale structure, key signatures in major and minor keys, plus chord construction and voice leading. [Fall offering]
2 lecture / 2 laboratory hours

MUS 127 Music Theory I **3 credits**
Prerequisite: MUS 105 or permission of department
Corequisite: MUS 167
Topics include more advanced chord construction, figured bass, harmonic analysis, the principles and procedures of four-part writing emphasizing the primary triads and their inversions, as well as nonharmonic tones. Reinforced through ear training and sight singing. [Spring offering]
2 lecture / 2 laboratory hours

MUS 128 Music Theory II **3 credits**
Prerequisite: MUS 127
Corequisite: MUS 168
Completion of the diatonic system. Harmonic principles and procedures introduced in MUS 127 are expanded to include application to the supertonic, leading tone, mediant and submediant harmonies in both triad and seventh chord form. Introduces more advanced part-writing, as well as harmonic and structural analysis of 18th and 19th century repertoire. Reinforced through aural skills training and keyboard harmony. [Fall offering]
2 lecture / 2 laboratory hours

MUS 167 Musicianship I **1 credit**
Corequisite: MUS 127
Progressive exercises in sight singing, ear training in the form of melodic, rhythmic and harmonic dictation, as well as the practice of keyboard harmony. Emphasis on diatonic materials and the primary triads. Coordinated with conceptual materials presented in MUS 127.
2 laboratory hours

MUS 168 Musicianship II **1 credit**
Prerequisites: MUS 127, MUS 167
Corequisite: MUS 128
Continuation of studies begun in MUS 167 with more advanced exercises in sight singing, ear training and keyboard harmony as well as expanded use of the diatonic system including all diatonic triads. Coordinated with conceptual materials presented in MUS 128.
2 laboratory hours

MUS 227 Music Theory III **3 credits**
Prerequisite: MUS 128
Corequisite: MUS 267
Study of chromatic harmony especially as used in modulation. Students recognize and compose harmonic progressions involving secondary dominants, diminished seventh chords, as well as altered and borrowed chords, correlated with exercises in ear training, sight-singing, and keyboard harmony. Also includes harmonic and formal analysis of 18th and 19th century repertoire. [Spring offering]
2 lecture / 2 laboratory hours

MUS 267 Musicianship III **1 credit**
Prerequisites: MUS 128, MUS 168
Corequisite: MUS 227
Further studies in sight singing, ear training, and keyboard harmony building upon skills acquired in MUS 167 and MUS 168. Introduces chromatic materials including modulation to the dominant and to the relative major and minor. Coordinated with conceptual materials presented in MUS 227.
2 laboratory hours

MUS 121 Piano Class I **1 credit**
Fundamentals of piano playing, covers music reading, chords, various accompaniment styles, coordination of both hands, and sight-reading skills. Group instruction is given via an electro-piano lab. College pianos are available for practice. No prior piano instruction necessary.
2 laboratory hours

MUS 122 Piano Class II **1 credit**
Prerequisite: MUS 121
Continuation of playing skills and activities initiated in MUS 121.
2 laboratory hours

MUS 221 Piano Class III **1 credit**
Prerequisite: MUS 122
Continuation of MUS 122. Explores various periods of keyboard literature as well as increasingly difficult technical skills, sight reading, and transposing.
2 laboratory hours

MUS 222 Piano Class IV **1 credit**
Prerequisite: MUS 221
Continuation of MUS 221.
2 laboratory hours

MUS 142 Guitar Class I **1 credit**
Opportunity to learn to play the guitar; no previous experience necessary. Covers basic chords, song accompaniment, music reading, and pertinent music forms. Some acoustic guitars are available for student use in class.
1 lecture / 1 laboratory hour

MUS 174 Chorus I **1 credit**
MUS 175 Chorus II **1 credit**
MUS 274 Chorus III **1 credit**
MUS 275 Chorus IV **1 credit**
Opportunity to sing choral repertoire in a variety of genres from all periods of music history. Rehearsals culminate in one or two public performances each semester. Some prior singing experience required. 3 class hours

MUS 170 Chamber Ensemble I **1 credit**
MUS 171 Chamber Ensemble II **1 credit**
MUS 270 Chamber Ensemble III **1 credit**
MUS 271 Chamber Ensemble IV **1 credit**
Opportunity to explore, through rehearsal and performance, traditional chamber music repertoire drawn from a variety of historical periods. The student is trained in the proper phrasing, articulation, and dynamics specific to each style. Open to players of all appropriate instruments.
3 class hours

MUS 182 Orchestra I **1 credit**
MUS 183 Orchestra II **1 credit**
MUS 282 Orchestra III **1 credit**
MUS 283 Orchestra IV **1 credit**
Prerequisite: prior orchestral instrument playing experience
Opportunity to explore, through rehearsal and performance, orchestral repertoire from a variety of historical periods. The student is trained in proper phrasing, articulation, and dynamics as well as learning how to play within a large group. Course culminates in a final public concert performance.
3 class hours

MUS 109 Applied Music I **1 credit**
MUS 110 Applied Music II **1 credit**
MUS 209 Applied Music III **1 credit**
MUS 210 Applied Music IV **1 credit**
Private lessons on keyboard, voice, or band/orchestral instrument with a member of the artist-teacher staff. Special fee required.
one-half hour per week

MUS 178 Jazz Band I **1 credit**
Prerequisites: ability to play a jazz band instrument and to read music notation
MUS 179 Jazz Band II **1 credit**
MUS 278 Jazz Band III **1 credit**
MUS 279 Jazz Band IV **1 credit**
Opportunity to explore classic jazz literature through rehearsal and performance. Repertoire is selected from standards of the swing era, to bebop, to contemporary funk and fusion with an emphasis on proper articulation, groove, and dynamics specific to each style. 3 class hours

MUS 151 Jazz Improvisation I **2 credits**
Prerequisites: ability to play an instrument and to read musical notation
(MUS 151 and MUS 152 need not be taken in sequence.)
Introductory-level course emphasizing use of the Mixolydian mode and the blues scale as applied to the dominant 7th family chords. Explores the twelve-bar blues and related forms as vehicles for improvisation with an emphasis on swing and funk rhythms. 1 lecture / 2 laboratory hours

MUS 152 Jazz Improvisation II – Modal **2 credits**
Prerequisites: ability to play an instrument and to read musical notation
(MUS 152 may be taken before MUS 151.)
Introductory-level course presenting the conceptual and practical rudiments of the jazz language by focusing on two modes, Ionian and Dorian, as they apply to the major and minor families of chords, respectively. Emphasizes Latino idioms and rhythms. 1 lecture / 2 laboratory hours

MUS 223 Jazz Keyboard Harmony and Improvisation **1 credit**
Prerequisite: MUS 221
Introductory course presenting the fundamentals of jazz harmony, chord progressions, scales, and tools for improvisation at the keyboard.
2 laboratory hours

MUS 123 Music Business **3 credits**
Overview of the music industry including copyright law, publishing, contracts, management, licensing, and merchandising. Students gain an overall understanding of the people, technologies, and laws that affect all aspects of the music business, culminating in a discussion of career opportunities. 3 lecture hours

MUS 235 Music Composition in the Virtual Studio **3 credits**
Prerequisites: CMN 253, MUS 127
Strategies for writing, recording, and producing music in the context of an integrated MIDI/digital audio production environment. Topics include MIDI data entry, recording live sound sources, editing, plug-ins, mixing, mastering, digital music production, and generating .wav and .mp3 files. Assignments include creative projects and listening/discussion of relevant "popular" and "art" music.
2 lecture / 2 laboratory hours

NET — NETWORKING TECHNOLOGY

Note: Students should consult their academic advisor and the college or university to which they intend to transfer regarding networking technology course requirements. The receiving institution always makes the final decision concerning transferability of credits.

NET 102 Introduction to PC Hardware and Software 3 credits
Students learn to install, configure, diagnose, and troubleshoot microcomputer hardware components and various operating systems. Includes an introduction to local area networks, the identification and installation of memory, preventative maintenance, plus coverage of terminology and concepts that will assist students preparing for the A+ Certification exams.
2 lecture / 3 laboratory hours

NET 103 IT Essentials 3 credits
Prerequisite: basic computer literacy
A continuation of NET 102. Students learn advanced concepts regarding the installation, configuration, diagnosis, and troubleshooting of microcomputer hardware components and operating systems. Includes coverage of terminology and concepts that will assist students preparing for the Server+ Certification exam.
2 lecture / 3 laboratory hours

NET 104 Fundamentals of Computer Networks 3 credits
Prerequisite: basic computer literacy
Fundamentals of data communications theory, network management, connectivity, the OSI model, and internetworking protocols and standards. Covers topologies, architectures, operating systems, security, LAN/WAN components, modem implementation, LAN troubleshooting and support resources, fault tolerance, network adapters, and client-server environments. Assists students preparing for the Network+ Certification exam.
2 lecture / 2 laboratory hours

NET 120 Windows Desktop Operating System Administration 3 credits
Prerequisite: basic computer literacy
Students learn to install the Windows desktop OS; create users/groups; administer file/print resources; manage hardware; optimize performance and reliability; configure desktops using control panel, registry, system policies; and configure network protocols and services. Covers resource auditing, data storage management, network monitoring, and security, plus introduction to DNS and Active Directory. Hands-on exercises reinforce Microsoft certification exam objectives.
2 lecture / 2 laboratory hours

NET 122 Windows Server Operating System Administration 3 credits
Prerequisites: NET 102 or A+ Certification; NET 120 or permission of program coordinator
Students learn to install and configure the Windows server network OS, including overall administration, advanced file system concerns, and active directory services. Covers routing, remote access, network security, fault tolerance, and server and network resource optimization. Introduces application servers and troubleshooting in a network environment. Hands-on exercises reinforce Microsoft certification exam objectives.
2 lecture / 2 laboratory hours

NET 124 Network Infrastructure Administration 3 credits
Prerequisite: NET 122
Windows-based focus includes implementing TCP/IP for cross-platform and Internet connectivity, WINS and DNS to resolve hosts on local and remote networks, DHCP to manage address configuration, RAS including dial-up connectivity and virtual private networks, and Internet connection sharing with NAT. Covers securing network communications with certificates, IP security, authentication, and encryption. Hands-on exercises reinforce Microsoft certification exam objectives.
2 lecture / 2 laboratory hours

NET 126 Network Directory Services Administration 3 credits
Prerequisite: NET 122
Students plan, configure, and administer a directory services infrastructure. Includes DNS configuration, administering user environments with group policy, remote OS deployment using RIS, and centrally managing users, groups, shared folders, and network resources. Covers implementing and troubleshooting security as well as monitoring and optimizing directory services performance. Hands-on exercises reinforce Microsoft certification exam objectives.
2 lecture / 2 laboratory hours

NET 130 Routing and Switching Essentials 3 credits
Prerequisite: NET 104 or Network+ Certification
Study of the concepts and commands required to configure switches and routers in multiprotocol internetworks. Identifies solutions for small to medium-sized businesses, with procedures to configure multirouter, multigroup internetworks using LAN/WAN interfaces for common routed protocols. Also covers installation, configuration, and troubleshooting essentials required by technicians to install and maintain these devices. Hands-on exercises reinforce Cisco certification exam objectives. 2 lecture / 2 laboratory hours

NET 212 Linux **3 credits**
Prerequisites: NET 102 or A+ Certification; NET 104 or Network+ Certification
Study of current hardware and software components of two operating system environments: Linux and AS/400. Major concentration is on Linux with an introduction to AS/400. Hands-on lab projects reinforce selected Linux lecture topics.
2 lecture / 2 laboratory hours

NET 230 Scaling Networks **3 credits**
Prerequisite: NET 130
Study of the concepts and commands required to use routing and switching technologies together, including recommended campus network design methodologies. Topics include Layer 2 switching technologies including Spanning Tree, VLAN, frame tagging, and protocols; and Layer 3 routing services including interVLAN routing, multilayer switching, Hot Standby Routing Protocol (HSRP), and IP multicast. Hands-on exercises reinforce Cisco certification exam objectives.
2 lecture / 2 laboratory hours

NET 240 Network Security **3 credits**
Prerequisite or Corequisite: NET 130; NET 244 recommended
Explores security design considerations for enterprise networks through the evaluation of existing and planned technical environments, including identifying security risks and defining security baselines. Topics include controlling resource access using various security techniques. Hands-on exercises reinforce certification exam objectives.
2 lecture / 2 laboratory hours

NET 241 Cyber Security Analytics **3 credits**
Prerequisites: NET 104, NET 120
Determine, analyze, and plan for threats to and vulnerabilities of computer information technology software and hardware systems. Emphasis includes risk mitigation, compliance and assessment involving proactive threat intelligence to manage organizational security, monitoring for indicators of compromise, and incident response applying basic digital forensics techniques. Hands-on exercises reinforce certification exam objectives.
2 lecture / 2 laboratory hours

NET 242 Directory Services Infrastructure Design **3 credits**
Prerequisites: NET 124, NET 126
Analyzes requirements related to the design of a directory services infrastructure, including connectivity and access, security, performance, and end user support. Topics include assessment of the impact on existing systems and processes, creating a forest model and schema modification plan, and defining and naming domains. Hands-on exercises reinforce Microsoft certification exam objectives. 2 lecture / 2 laboratory hours

NET 244 Network Defense and Countermeasures **3 credits**
Prerequisite: NET 104 or Network+ Certification
Examines current risks and threats combined with structured safeguarding of an organization's critical electronic assets. Provides a foundation for those new to information security as well as those responsible for protecting network services, devices, traffic, and data. Broad-based, in-depth coverage prepares students for further study in other specialized security fields. Hands-on activities reinforce certification exam objectives.
2 lecture / 2 laboratory hours

NET 245 Ethical Hacking **3 credits**
Prerequisites: NET 102, NET 104
Combines an ethical hacking methodology with the hands-on application of security tools to better help students secure their systems. Students are introduced to common countermeasures that effectively reduce and/or mitigate attacks, including penetration testing, reconnaissance/open source intelligence gathering, scanning, enumeration, exploitation, and post-exploitation. Hands-on activities reinforce certification exam\ objectives.
2 lecture / 2 laboratory hours

NET 256 Cloud Foundations **3 credits**
Prerequisite: IST 101 or IST 102
Introduces students to cloud computing foundations, including a detailed overview of cloud concepts, AWS core services, security, architecture, pricing, and support. Designed for students majoring in Computer Information Systems or obtaining a Network Engineering Technology certificate.
2 lecture / 2 laboratory hours

NRS — NURSING

NRS 105 Professional Nursing **1 credit**
Corequisite: NRS 115
Introduces the learner to non-clinical professional nursing concepts. Focus on understanding foundational concepts in nursing includes such topics as nursing theory, advocacy, ethics, and evidence-based practice. 1 lecture hour

NRS 115 Concepts of Nursing Practice I **6 credits**
Prerequisites: BIO 104, CHE 107, ENG 102, MAT 125, PSY 207
Corequisite: NRS 105
Introduces the fundamental concepts of nursing practice and their application across the lifespan, with a focus on uncomplicated chronic and mild acute alteration in health. The application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings.
3 lecture / 3 college laboratory / 6 clinical hours

NRS 125 Concepts of Nursing Practice II 8 credits

Prerequisites: BIO 104 with a minimum C+ grade, NRS 111, NRS 112

Builds on the first semester courses to further refine the concepts of nursing practice with application to the care of diverse clients with uncomplicated acute and chronic conditions across the lifespan. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings.

3 lecture / 3 college laboratory / 12 clinical hours

NRS 150 Concepts of Nursing Practice II 6 credits

Prerequisite: NRS 115

Builds on first semester nursing coursework to advance the understanding of concepts of nursing practice. Study applies to care of diverse clients with uncomplicated acute and chronic conditions across the lifespan, including the client with mental health disorders. The application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings.

3 lecture / 3 college laboratory / 8 clinical hours

NRS 225 Concepts of Nursing Practice III 8 credits

Prerequisites: BIO 201 with a minimum C+ grade, NRS 125

Builds on the previous nursing courses to further refine and apply the concepts of nursing practice in the care of diverse clients with complicated acute and chronic conditions across the lifespan. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings.

3 lecture / 3 college laboratory / 12 clinical hours

NRS 235 Concepts of Nursing Practice IV 8 credits

Prerequisite: NRS 225

Builds on all previous nursing courses to further refine and apply the concepts of nursing practice in the care of diverse client populations with acute and chronic complex conditions across the lifespan. Application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings.

3 lecture / 3 college laboratory / 12 clinical hours

NRS 245 Concepts of Nursing Practice III 6 credits

Prerequisite: NRS 150

Builds on the previous nursing coursework to further advance the understanding and application of concepts of nursing practice. Study applies to care of diverse clients with complicated acute and chronic conditions across the lifespan, including the reproducing family. The application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings.

3 lecture / 3 college laboratory / 8 clinical hours

NRS 250 Concepts of Nursing Practice IV 6 credits

Prerequisite: NRS 245

Corequisite: NRS 275

Builds on all previous nursing coursework to further advance the understanding and application of concepts of nursing practice to care of diverse clients with complicated, critically acute conditions across the lifespan. The application of knowledge and skills occurs in the nursing laboratories and a variety of clinical settings.

3 lecture / 3 college laboratory / 8 clinical hours

NRS 275 Transition to Nursing Practice 1 credit

Prerequisite: NRS 245

Corequisite: NRS 250

Prepares the new graduate nurse to transition into practice. Students complete a professional development plan and explore nursing careers in different healthcare settings. Additional course content addresses advocacy and ethics in healthcare, evaluation of evidence, promotion of quality and safety, and leadership. Clinical observation hours are included. 1 lecture / 16 clinical hours

NSG — NURSING: COOPERATIVE PROGRAM

All NSG courses are based with and taught at St. Francis Medical Center School of Nursing.

NSG 131 Concepts of Nursing I 6 credits

Corequisites: BIO 103, PSY 101

Introduction to concepts and procedures of nursing practice. Fundamental skills are developed and applied within the framework of the nursing process to meet the physiological, social, and psychological needs of clients. Clinical experiences focus on alterations in health of the adult client with acute and chronic medicalsurgical conditions.

4 lecture / 120 clinical hours

NSG 133 Concepts of Nursing III 3 credits
Prerequisites: BIO 104, NSG 134, NSG 135, PSY 207
Assists students in the use of the nursing process when caring for the client experiencing mental health problems. Emphasizes client care during all phases of mental health disorders, from prevention through rehabilitation. Explores concepts of groups. Provides experiences in a variety of mental health settings. **2 lecture / 60 clinical hours**

NSG 135 Concepts of Nursing II 7 credits
Prerequisite: NSG 131 with a minimum C grade
Corequisite: BIO 104 or NSG 134
Prepares students to use the nursing process in caring for clients experiencing common physiological alterations. Introduces concepts of leadership and management. Builds on previous learning to develop additional skills. Provides clinical experience in a variety of settings.
4 lecture / 180 clinical hours

NSG 136 LPN Transition: Nursing Through the Life Span 9 credits
Prerequisites: BIO 103, BIO 104, ENG 101, PSY 101, PSY 207, NSG 137, NUR 151
Corequisite: BIO 201
Designed to assist in the transition from licensed practical nurse to registered nurse. Building on previous learning while introducing new knowledge and skills that pertain to the registered nurse role, prepares for the final two nursing courses in the curriculum. Emphasizes use of the nursing process in meeting the self-care deficits of clients and families through the life span.
5 lecture / 180 clinical hours

NSG 137 Physical Assessment 3 credits
Prerequisite: formal admission into the Nursing program
Corequisites: BIO 103, PSY 101
Provides the knowledge and skills necessary to perform a comprehensive adult health assessment. Through discussion as well as laboratory and individual practice, all body systems are assessed. Emphasizes interviewing, obtaining a complete health history, performing a physical assessment, and systematic documentation of findings.
2 laboratory hours

NUR — NURSING

NUR 151 Pharmacology in Nursing 3 credits
Prerequisite: Nursing program first year completion, or permission of instructor
Theoretical approach to pharmacology, expanding basic concepts of drug knowledge required to administer medication safely. Emphasizes pharmacology as an integrated science requiring up-to-date information consistent with current nursing responsibilities, technology, and practice. Drug therapies affecting body systems are a major consideration. **3 lecture hours**

OHT — ORNAMENTAL HORTICULTURE

GenEd SCIENCE

OHT 101 Plant Science 3 credits
Introduction to the field of plant science. Topics include basic botany and plant physiology; plant growth; leaves, roots, fruits, stems, and flowers; cells; plant reproduction; genetics; and the plant kingdoms. [Fall offering]
2 lecture / 2 laboratory hours

OHT 102 Ornamental Horticulture 3 credits
Examines plant propagation, plant pests, landscape establishment and maintenance, greenhouse management, principles of landscape design, and fruit and vegetable production. [May be taken independently of OHT 101.] [Spring offering]
2 lecture / 2 laboratory hours

GenEd SCIENCE

OHT 108 Soil and Plant Nutrition 4 credits
Prerequisite: CHE 100 or equivalent with a minimum C grade or permission of program coordinator
Explores the origins, composition, and properties of soils. Addresses physical and chemical properties including ion exchange and pH effects, soil organic matter, soil-water relationships, the nature of and reasons for soil nutrient deficiencies, composition, and the use of fertilizers and other soil adjuvants. Lab work involves representative New Jersey soils to illustrate basic soil behavior. [Spring offering] **3 lecture / 3 laboratory hours**

OHT 121 Herbaceous Plants 3 credits
Prerequisite: BIO 101 or OHT 101 with a minimum C grade or permission of program coordinator
Study of cultivated, ornamental herbaceous plant species including annuals, perennials, bulbs, herbs, and grasses. Emphasizes identification, use, color, height, and season of bloom. Special topics include planning a herbaceous garden, insect pests, diseases, and propagation. [Fall offering]
2 lecture / 2 laboratory hours

OHT 200 Urban Planning and Design 3 credits
This course is designed to discuss both the history and the future of urban design and planning through the identification of environmental challenges within the urban environment along with possible solutions. Understanding the human perspective and the impacts on physical and mental well-being is an integral part of the process.
2 lecture / 2 laboratory hours

OHT 201 Basic Landscaping and Planning I 3credits

Principles and technology of landscape design. Covers the practical and aesthetic aspects of planning the residential landscape, involving both materials and methods. Emphasizes design and graphics skills. [Fall offering]

2 lecture / 3 laboratory hours

OHT 202 Basic Landscaping and Planning II 3 credits

Prerequisite: OHT 201 with a minimum C grade

Continuation of OHT 201. Emphasizes practical projects for residential areas and public common spaces. [Spring offering]

2 lecture / 3 laboratory hours

OHT 204 Plant Diseases 3 credits

Prerequisite: OHT 101 or permission of program coordinator

Introduction to the history, economic importance, symptoms, causal agents and management of plant diseases. Lab exercises include the isolation, culture, and identification of plant pathogens. [Fall offering] 2 lecture / 2 laboratory hours

OHT 207 Floral Design I 3 credits

Basic principles and elements of design as applied to floral arranging. Emphasizes the primary types of arrangements, flower and greens identification, history of floral design, and an introduction to the floral industry. [Fall offering]

2 lecture / 2 laboratory hours

OHT 212 Landscape Construction 3 credits

Prerequisite: OHT 102 or permission of program coordinator

Introduces students to the implementation and maintenance of landscape projects. Dominant areas of study include bidding and estimating; hardscape installation and maintenance; and advanced landscaping skills and techniques. Advanced skills covered include lighting, drainage, irrigation, planting and pruning.

2 lecture / 2 laboratory hours

OHT 214 Urban and Peri-Urban Forestry Management 3 credits

Prerequisite: OHT 220

Urban forests are essential to cities. As populations rise in urban areas we are seeing a greater need for green spaces. This class will cover what makes an urban forest, the benefits of urban forest from an environment, ecological, and social perspective, and proper assessment techniques and management practices.

2 lecture / 2 laboratory hours

OHT 217 Food Production & Distribution in an Urban State 3 credit

Prerequisite: OHT 102

This course is designed to teach the methods of agriculture production used to supply food across the state of New Jersey and beyond. Students will gain valuable experience utilizing a variety of production techniques, and will be introduced to the network of groups and individuals that support agriculture for New Jersey producers.

2 lecture / 2 laboratory hours

OHT 219 Plant Propagation 3 credits

Prerequisite: OHT 101 or permission of program coordinator

Principles and techniques involved in the selection, propagation, and growth of garden flowers, greenhouse crops, woody plants, turfgrass, and plants for interior landscape. [Fall offering]

2 lecture / 2 laboratory hours

OHT 220 Aboriculture 3 credit

Prerequisite: OHT 101

Through a mixture of lectures and hands on laboratory experiences, students will learn tree biology, proper planting and maintenance techniques, and the industry standards of tree care. This course is designed to prepare students to take the ISA Certified Arborist exam. 2 lecture / 2 laboratory hours

OHT 223 Topics in Horticulture: Gardening 1 credit

Explores topics in gardening, including triumphs and pitfalls of growing annuals, perennials, bulbs, fruits, vegetables and woody plants. Involves fieldwork. [Summer offering] 2 laboratory hours

OHT 224 Topics in Horticulture: Landscaping 1 credit

Prerequisite: OHT 201

Application of computer programs to enhance design presentation skills. [occasional offering]

2 laboratory hours

OHT 226 Interior Landscape Design 3 credits

Prerequisite: OHT 101 or OHT 102 or permission of program coordinator

Emphasizes the key ornamental aspects, cultural requirements, and uses of each species covered. Specific topics include indoor landscaping, propagation, terrariums, and environmental requirements. Involves both taxonomic and common nomenclature. [Spring offering]

2 lecture / 2 laboratory hours

OHT 231 Turfgrass Management I 3 credits

Prerequisite: OHT 101 or OHT 102 or permission of program coordinator

How to establish and maintain turfgrass for residential and commercial applications. Includes identification and use of cultivars, seeding and sodding, insects and pests, fertilization, and irrigation methods. [Spring offering]

2 lecture / 2 laboratory hours

OHT 232 Nursery Management I 3 credits
Prerequisite: OHT 101 or OHT 102 or permission of program coordinator
Examines nursery operations and mechanics. Topics include planting and transplanting trees and shrubs, fertilization, pest control, irrigation, pruning, propagation techniques, business operations, and employee management. Lab exercises and a field study of local businesses reinforce material. [Spring offering] 2 lecture / 2 laboratory hours

OHT 241 Equipment and Integrated Pest Management 3 credits
Prerequisite: OHT 102 or permission of program coordinator
Review of the equipment and procedures used in horticultural settings with an emphasis on pest management. Topics include theories of and strategies for integrated pest management, pest identification, application of pesticides, calibration of equipment, and equipment operation. [Spring offering] 2 lecture / 2 laboratory hours

OHT 291 Ornamental Horticulture Cooperative Education I 3 credits
Required capstone experience for Ornamental Horticulture degree and certificate candidates. In approved positions related to their specializations, students work for cooperating employers. Includes performance reviews by faculty observers, employer evaluations of proficiencies, periodic seminars, and a final assessment. [Spring, Summer, Fall offering] 175 work experience hours

OHT 292 Ornamental Horticulture Cooperative Education II 1 credit
Prerequisite: OHT 291
Continuation of OHT 291. [Spring, Summer, Fall offering] 85 work experience hours

PBH — PUBLIC HEALTH

PBH 101 Principles of Public Health 3 credits
Prerequisite: placement in college-level English
A broad overview of public health including historical perspectives, communicable disease, epidemiology, health policy, environmental health, emergency preparedness, as well as social, cultural, and behavioral aspects of health across the life span. Additional topics present an introduction to public health infrastructure, delivery of local, state and national services, and core competencies for public health professionals. 3 lecture hours

PBH 102 Foundations of Community Health Worker Practice 3 credits
Prerequisite: PBH-101
This course will provide an introduction to outreach methods and strategies for healthcare workers engaging individuals and groups in diverse settings. Responsibilities in care coordination, systems navigation, health education, and comprehensive documentation as part of the healthcare team are examined. Emphasis will be placed on cultural humility, boundary maintenance, legal and ethical decision making in the healthcare field, as well as the importance of self-care.3 lecture hours

PBH 201 Disparities in Individual and Community Well-Being 3 credits
Prerequisite: ENG-101
The course examines well-being as influenced by community-based factors such as bias, discrimination, structural violence, and inequities in access to resources like education, housing, and healthcare. 3 lecture hours

PBT — PHLEBOTOMY

PBT 101 Phlebotomy for Healthcare Professionals 4 credits
Prerequisite: high school diploma/GED
Provides theory and skill development for healthcare professionals in the performance of blood collection using proper techniques and infection precautions. Student are provided with hands-on training to perform venipunctures and capillary skin puncture. The student is instructed in the anatomy and physiology of the circulatory system, specimen collection, specimen processing and handling, safety, and quality control. Upon successful completion, the student will be able to perform phlebotomy in a clinical setting.
3 lecture / 3 laboratory hours

PBT 102 Phlebotomy Practicum 2 credits
Corequisite: PBT 101
Supervised experience in the performance of venipuncture and microcollection techniques in a clinical facility. Emphasis on patient interaction and application of universal precautions, proper collection techniques, special procedures, specimen handling, and data management. Upon completion, students should be able to safely perform procedures necessary for specimen collections on patients in various health care settings.
100 studio hours

PHI — PHILOSOPHY

GenEd HUMANITIES

PHI 102 Introduction to Philosophy 3 credits
A study of the basic problems and methods of philosophical inquiry. Topics include theories about knowledge, reality, human nature, ethics, religion and science, with consideration of the thought of such major thinkers as Plato, Aristotle, Descartes, Hume, Kant, Nietzsche, and Sartre.
3 lecture hours

GenEd HUMANITIES

PHI 112 Critical Thinking 3 credits
Theory and practice of critical thinking through examples drawn from science, business, politics, media, literature, and art. Students apply logical techniques and attitudes of analysis and communication for constructive assessment, ethical reasoning and creative problem-solving by evaluating definitions, facts, arguments, causes, rhetoric, differences, and plans while avoiding common errors and biases. 3 lecture hours

GenEd HUMANITIES

PHI 113 Logic 3 credits
An introduction to the principles and methods of correct reasoning. A problem-solving approach to the nature and scope of different kinds of logic, identifying and evaluating arguments and fallacies, and crafting well-formed arguments.
3 lecture hours

GenEd HUMANITIES

PHI 204 Ethics 3 credits
Prerequisite: ENG 101
An examination of the basic methods and problems of ethics. Consideration of the nature of moral terms, reasoning and action; conceptions of the good life and of right and wrong; free will; and major ethical approaches, including the theories of Aristotle, Kant, Mill, and others. 3 lecture hours

GenEd HUMANITIES

PHI 205 Moral Choices 3 credits
Prerequisite: ENG 101
Examines contemporary moral issues such as abortion, euthanasia, capital punishment, affirmative action, pornography, hate speech, gay rights, corporate responsibility, world hunger, global consumption, war, and terrorism. Stresses the critical application of moral theory, principles, and methods.
3 lecture hours

PHI 209 Business Ethics 3 credits
Ethical concepts applied to business and government. Case studies and analysis of selected moral issues include the ethics of the marketplace, consumerism, the environment, advertising, job discrimination, distributive justice and world poverty. [occasional offering] 3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

PHI 210 Eastern Philosophy 3 credits
Prerequisite: ENG 101 or permission of instructor
Introduction to the major philosophical traditions of India, China and other non-Western traditions. Concentrating on the core issues of epistemology, metaphysics and ethics, study involves such major thinkers as Shankara, Ramanuja, Laozi and Confucius. Topics include indigenous and colonial influences as well as critical comparison with Western philosophies. 3 lecture hours

GenEd HUMANITIES

PHI 220 Philosophy of Politics 3 credits
Prerequisite: ENG 102 with a minimum C grade or permission of instructor
Exploration of the ideas which explain how politics works and how it should work. Surveys contrasting views on liberty and order, fairness and obligation, stability and change, pluralism and equality, liberalism and the state, law and anarchy, capitalism and socialism, and challenges of globalization.
3 lecture hours

PHO — PHOTOGRAPHY

PHO 101 Black & White Film Photography I 3 credits
Foundation course in film-based photography emphasizes basic techniques for the still film camera and utilizing the traditional darkroom lab. Film cameras are provided. The development of creative visual expression is strongly encouraged. Lab time is provided during class meetings, but use of open lab hours to process film is required in order to complete assignments on time.
1 lecture / 4 studio hours

PHO 103 Digital Photography I 3 credits
Introductory course for students having basic computer knowledge and interested in gaining knowledge of digital imaging tools and techniques, and improving their creativity. Topics include Photoshop, digital retouching, digital cameras, inkjet printing, resolution, and scanning through lab activities as well as classroom lecture.
2 lecture / 3 laboratory hours

GenEd HUMANITIES

PHO 110 History of Photography 3 credits
Historical survey of the growth of photographic art and technique from camera obscura to the present, emphasizing aesthetics, applications, and social impact. Includes the relationship of photography to the other arts and the effects of changing technology on the photographic image. [Spring offering]
3 lecture hours

PHO 202 Studio Photography 3 credits
Prerequisite or Corequisite: PHO 103 or PHO 203 with a minimum C grade
Use digital or film cameras of any format to create portraits, still-life, and product shots. Topics include lighting, composition, technique, and studio equipment.
1 lecture / 4 studio hours

PHO 203 Photography II 3 credits
Prerequisite: PHO 101 or PHO 103 with a minimum C grade
Intermediate-level course in film and digital still photography. Covers medium- and large-format film cameras, full-frame DSLR cameras, archival printing methods in both film and digital labs, photo retouching software, film-scanning, and exploring concepts through images during lab activities as well as classroom lecture.
1 lecture / 4 laboratory hours

PHO 251 Documentary Photography 3 credits
Prerequisite or Corequisite: PHO 103 or PHO 203 with a minimum C grade
Emphasizes techniques and issues of long- and short-term location assignment shooting. Students are afforded opportunities to gain practical experience covering news, features and sports events for The College Voice and to work with journalism students. A photographic essay is developed throughout the semester.
1 lecture / 4 studio hours

PHO 285 Special Studies in Photography 3 credits
Advanced topics in both traditional and digital photography. Course material is tailored to satisfy special requests by students and to share the specialized talents of the college faculty. [occasional offering]
1 lecture / 4 studio hours

PHO 290 Photography Internship 3 credits
Prerequisite: coordinator approval
Work experience from participating photographic studios, labs, and galleries.
1 lecture / 180 laboratory hours

PHI — PHILOSOPHY

GenEd SCIENCE

PHY 101 College Physics I 4 credits
Corequisite: MAT 115
The first of a two-semester non-calculus sequence intended for engineering technology and related majors. Topics include mechanics, heat, sound, and properties of matter. [Students who have not taken high school physics may wish to take PHY 111 as a preparatory course.]
3 lecture / 3 laboratory hours

GenEd SCIENCE

PHY 102 College Physics II 4 credits
Prerequisites: PHY 101 and MAT 115 with a minimum C grade or approved equivalent
The second of a two-semester non-calculus sequence. Topics include electricity and magnetism, optics, atomic physics, and nuclear physics.
3 lecture / 3 laboratory hours

GenEd SCIENCE

PHY 109 Fundamentals of Physics 3 credits
Prerequisite: MAT 037 or MAT 042
An introduction to the fundamental principles – underlying science and technology – of physics. Intended for the health fields, life sciences, and other areas requiring basic physics literacy. Topics of emphasis include Newtonian mechanics, work and energy, electricity and magnetism, electromagnetic waves, optics, as well as atomic and nuclear physics.
2 lecture / 2 laboratory hours

GenEd SCIENCE

PHY 111 Physical Science Concepts 3 credits
Prerequisite: proficiency in basic algebra
Survey of fundamental concepts in the physical sciences for students not majoring in science or engineering. Covers a broad range of topics in the fields of chemistry, physics, and astronomy such as measurement, motion, forces (gravitational, electromagnetic, nuclear), light, sound, atomic structure, molecular structure, crystal structure, nuclear structure, and various technological applications. Lab exercises support and supplement the lecture topics.
2 lecture / 2 laboratory hours

GenEd SCIENCE

PHY 115 University Physics I 4 credits
Prerequisites: MAT 146 with a minimum C grade; one semester of high school or college physics
Corequisite: MAT 151
The first course in a calculus-based physics sequence intended for students majoring in physics, engineering science, computer science, mathematics, and other technical areas. Topics include kinematics, dynamics, statics, energy, momentum, oscillations, gravity, as well as solid and liquid materials. The laws of physics are investigated and applied to problem solving.
3 lecture / 3 laboratory hours

PHY 121 Astronomy 3 credits
Prerequisite: MAT 015
Introduces students to the world beyond Earth with a survey of modern astrophysics. Study encompasses three dominant sections: stellar astronomy, planets and life, and galaxies and cosmology. This exploration of the universe includes investigating principles affecting Earth as well.
2 lecture / 2 laboratory hours

GenEd SCIENCE

PHY 215 University Physics II 4 credits
Prerequisites: PHY 115 and MAT 151 with a minimum C grade
The second course in a calculus-based physics sequence intended for students majoring in physics, engineering science, computer science, mathematics, and other technical areas. Topics include electricity, magnetism, circuits, electromagnetic fields, as well as electromagnetic waves. The laws of physics are investigated and applied to problem solving. **3 lecture / 3 laboratory hours**

PHY 293 Honors Research in Physics I 2 credits
Prerequisites: PHY 101 or PHY 115; divisional permission
PHY 294 Honors Research in Physics II 2 credits
PHY 295 Honors Research in Physics III 2 credits
PHY 296 Honors Research in Physics IV 2 credits
Under the guidance of an area sponsor in an industrial or academic environment, students participate in a physics research project. Requires a written report and oral presentation to students and faculty at the conclusion of the project period. [May be applied toward fulfilling Science elective requirements in the Physics program or other program upon program coordinator's approval.]
5 laboratory hours per week

POL — POLITICAL SCIENCE

GenEd SOCIAL SCIENCE

POL 101 The American Political System 3 credits
Introduction to the basic structures of the United States national government and political processes with a view toward helping the student better understand current issues and policies. Topics include the Constitution, national-state relations and powers, the legislative and judicial processes, elections, and the activities of interest groups.
3 lecture hours

GenEd SOCIAL SCIENCE

POL 102 State and Local Government 3 credits
Analysis of the structure and processes of state and local groups, parties and candidates. Examination of current events and trends in modern politics further enhances awareness of the nature, strengths and weaknesses of government.
3 lecture hours

GenEd SOCIAL SCIENCE

POL 103 American Government 3 credits
Introduction to the basic structures of the United States national government and political processes with a view toward helping the student better understand current issues and policies. Topics include the Constitution, national-state relations and powers, the legislative and judicial processes, elections, and the activities of interest groups.
3 lecture hours

GenEd SOCIAL SCIENCE / DIVERSITY AND GLOBAL PERSPECTIVE

POL 201 International Relations 3 credits
A broad-based survey of international relations using a variety of theoretical perspectives that allow students to better understand and analyze current and past international behavior. Concepts include balance of power, economic interaction, diplomacy, the role of international organizations, leadership styles, and public policymaking in the international context. **3 lecture hours**

POL 205 Constitutional Law 3 credits
Introduces the principles of U.S. constitutional law including the constitutional basis for the federal system: powers of national government; the rights against national and state government; and the process of judicial review and the role of constitutional interpretation. 3 lecture hours

POL 215 Comparative Politics 3 credits
This course focuses on political systems within a comparative framework. Cases are taken from countries both more and less economically developed. Emphasis will be on different countries' government processes and institutions. This course is designed as an introduction to the key topics and debates within comparative politics.
3 lecture hours

PSY — PSYCHOLOGY

GenEd SOCIAL SCIENCE

PSY 101 Introduction to Psychology 3 credits
The scientific study of human nature – facts, principles, and theories concerning the mental, emotional, neurological, and social dimensions of human experience. Topics include consciousness, learning, thinking, memory, brain structure and function, motivation and emotion, development, personality, mental illness and its treatment, relationships, and social influence. 3 lecture hours

PSY 204 Social Psychology 3 credits
Prerequisite: PSY 101 with a minimum C grade
Studies the behavior and development of the individual in society, the function of social attitudes, and the emergence of social awareness. Topics include socialization and identity, person perception, attraction, attribution, theory, conformity and obedience, and attitudes and prejudices.
3 lecture hours

GenEd SOCIAL SCIENCE

PSY 206 Child Development 3 credits
Prerequisite: PSY 101 with a minimum C grade
Studies the physical, mental, emotional, and social development of the individual from conception through adolescence. Topics include motor and language development, attachment, temperament, gender and identity development, intelligence, prosocial and aggressive behavior, play, and family influences on development.
3 lecture hours

GenEd SOCIAL SCIENCE

PSY 207 Developmental Psychology: Across the Life Span 3 credits
Prerequisite: PSY 101 with a minimum C grade
Studies the physical, mental, emotional and social development of the individual throughout the life span. Students learn to evaluate major theories and methods of study in developmental psychology, to identify the opportunities and dangers inherent at each phase of life, and to understand the factors that influence developmental processes.
3 lecture hours

PSY 208 Theories of Personality 3 credits
Prerequisite: PSY 101 with a minimum C grade
Defines and assesses human personality within the context of current scientific advances as well as seminal historical perspectives. Examines the impact of individual psychological differences in predicting various life outcomes. 3 lecture hours

PSY 210 Abnormal Psychology 3 credits
Prerequisite: PSY 101 with a minimum C grade
Discusses the question: What is abnormal behavior and when does this behavior become a diagnosable disorder? History of psychological disorders and early treatments are examined along with the current classifications of psychological disorders as defined by the American Psychological Association. Theories of causation, prevalence, and treatments are also explored. 3 lecture hours

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

PSY 215 Human Sexuality 3 credits
Prerequisite: PSY 101 with a minimum C grade
Describes the anatomy and physiology of the human reproductive system and the physiology of human sexual functioning. Emphasizes human sexuality as reflecting the psychological makeup of the individual. Stresses the importance of cultural influences on an individual's behavior, along with interpersonal relationship factors.
3 lecture hours

PTA — PHYSICAL THERAPIST ASSISTANT

Except as noted, enrollment in PTA courses is limited to students who have completed all basic skill requirements and who have received full acceptance into the program. PTA majors are required to earn a minimum grade of C+ in PTA courses.

Note: PTA 206 and 217 COURSES ARE INTE RUPTED for five weeks for a Clinical Education course as indicated within the semester. Class times have been adjusted accordingly.

PTA 105 Kinesiology 3 credits
Prerequisite: BIO 103 with a minimum C grade completed within the past five years
Open to all students interested in physical therapy as a career or in the study of human movement; required for Physical Therapist Assistant majors. Introduces the concepts of locomotion, forces, levers, and biomechanics. Topics include origins, insertions, innervations, and actions of the prime movers of the musculoskeletal system.
3 lecture hours

PTA 107 Therapeutic Measurement 2 credits
Prerequisites: BIO 104 with a minimum C+ grade completed within the past five years; PTA 105
Corequisite: PTA 222
Addresses bony landmarks, muscle length, measurement of joint range of motion and muscle strength. Medical documentation is introduced. Students develop their skills through practice with each other. Competencies evaluated throughout the course. **1 lecture / 2 laboratory hours**

PTA 112 Pathology for PTAs 3 credits
Prerequisites: BIO 104 with a minimum C+ grade completed within the past five years; PTA 105
Covers the essential nature of diseases, abnormalities of structure, and function characteristic of diseases. **3 lecture hours**

PTA 114 Applied Kinesiology 2 credits
Prerequisites: PTA 105, PTA 222
Learners apply kinesiology concepts to clinical scenarios and exercise design, analyze internal and external forces acting during various movement patterns, understand the biomechanics of common functional movements, and develop palpation skills. **1 lecture / 2 laboratory hours**

PTA 206 Motor Development 2 credits
Prerequisites: PTA 210, PTA 214
Corequisite: PTA 213
Introduces developmental milestones, lifespan motor development, motor control, motor learning, recovery of function, neuroplasticity, reflexes and reactions, adaptive equipment, and various treatment approaches for neurological impairments.
2 lecture hours

PTA 207 Motor Development 1 credits
Prerequisites: PTA 210, PTA 214
Corequisite: PTA 217
Introduces developmental milestones, lifespan motor development, motor control, motor learning, recovery of function, neuroplasticity, reflexes and reactions, adaptive equipment and various treatment approaches used to treat neurological impairments. **2 lecture hours**

PTA 210 PTA Techniques 4 credits
Prerequisites: PTA 105, PTA 107
Corequisite: PTA 211
Addresses patient care and handling, including patient positioning and bed mobility, vital signs, transfers and gait, aseptic techniques, wound care, pharmacology, edema management, wheelchair use, body mechanics, and cardiac and pulmonary interventions. Students develop their skills through practice with each other. Competencies evaluated throughout the course.
3 lecture / 2 laboratory hours

PTA 214 Physical Agents 3 credits
Prerequisites: PTA 107; MAT 115 or MAT 140 or PTA program approved MAT equivalent with a minimum C+ grade
Study of biophysical agents and therapeutic modalities in physical therapy practice. Lab and lecture activities develop problem-solving and critical thinking in the use of electrical stimulation, therapeutic heat, cold, traction, and hydrotherapy for therapeutic interventions. Competencies evaluated throughout the course.
2 lecture / 2 laboratory hours

PTA 217 PTA Therapy Clinic 4 credits
Prerequisites: PTA 210, PTA 214
Corequisite: PTA 205
Therapeutic interventions for conditions arising from cerebral vascular accidents, traumatic brain injury, spinal cord injury, amputations, joint replacement, cardiac disease, and neurologic dysfunction. Emphasizes activities to promote optimal functional outcomes. Lab develops decision-making skills involving assistive devices, orthotics and prosthetics. Competencies evaluated throughout the course.
3 lecture / 3 laboratory hours

PTA 222 Clinical Orthopedics 4 credits
Prerequisite: PTA 105
Corequisite: PTA 107
A study of orthopedic conditions and their underlying pathology. Emphasis on physical therapy interventions in the rehabilitation of specified conditions. Topics include special tests, stretching, strengthening, joint mobilization, massage, exercise parameters, and progression. Students develop skills through practice with each other using clinical scenarios to promote clinical decision-making.
3 lecture / 3 laboratory hours

PTA 223 PTA Clinical Education I 4 credits
Prerequisites: PTA 210, PTA 214
Supervised full-time clinical instruction to observe the clinic environment and PT/PTA interactions; develop professional deportment and communication; refine measurement and time management skills; and learn about patient chart information.
40 hours per week for 5 weeks = 200 clinical hours

PTA 224 PTA Clinical Education I 3 credits
Prerequisites: PTA 210, PTA 211
Supervised full-time clinical instruction to observe the clinic environment and PT/PTA interactions; develop professional deportment and communication; refine measurement and time management skills; and learn about patient chart information.
40 hours per week for 4 weeks = 160 clinical hours

PTA 227 PTA Seminar 3 credits
Prerequisite: PTA 105
Corequisite: PTA 107
Overview of the healthcare system and the specific roles of professionals in healthcare fields. Topics include medical terminology, psychosocial aspects of disability, medical documentation, professional growth and development, evidence-based practice, and communication skills.
3 lecture hours

PTA 232 PTA Professional Development 2 credits
Prerequisite: PTA 227
Explores the professional association, ethics, fraud and abuse of physical therapy services and payment, research, quality assurance, career development, lifelong learning, how to present an in-service to colleagues, and preparation of a cover letter and resume. **2 lecture hours**

PTA 235 PTA Clinical Education II 4 credits
Prerequisites: PTA 213, PTA 224
Supervised full-time clinical experience allows students to apply and practice skills learned in other classes and learn to become an integral part of a physical therapy department.
40 hours per week for 5 weeks = 200 clinical hours

PTA 240 PTA Clinical Education III 5 credits
Prerequisite: PTA 235
Supervised full-time clinical experience allows students to practice all of the techniques and procedures taught in the program, performing all that is normally expected of a physical therapist assistant.
40 hours per week for 6 weeks = 240 clinical hours

RAD — RADIOGRAPHY

Enrollment in radiography courses is limited to students who have completed all basic skill requirements and who have received full acceptance into the program. The minimum passing grade for all RAD courses is C+.

Student learning outcomes in RAD courses support Radiography program goals in accordance with the Joint Review Committee on Education in Radiologic Technology external accreditation Standards.

RAD 102 Introduction to Radiography and Patient Care 2 credits
Prerequisite: formal acceptance into professional phase of Radiography program
Corequisites: RAD 119, RAD 127
An introduction to radiography including accreditation requirements, professional organizations, professional ethics, legal responsibilities, and patient care. **1 lecture / 2 laboratory hours**

RAD 117 Radiation Protection and Biology 2 credits
Prerequisites: RAD 120, RAD 128
Corequisite: RAD 207
Explores principles of radiation biology and radiation protection, including the production of X-rays, the interaction of radiation and matter, radiation units, and methods to protect the radiographer and patient. [Summer offering]
2 lecture hours

RAD 119 Principles of Imaging Science I 2 credits
Prerequisite: formal acceptance into professional phase of Radiography program
Corequisites: RAD 102, RAD 127
Examines fundamental principles of radiation physics including the atom, electromagnetic radiation, X-ray tube components, and X-ray production. Presents imaging science principles including the primary factors of technique formation and the art of film critique, with clinical application of these principles. [Fall offering] **2 lecture hours**

RAD 120 Principles of Imaging Science II 3 credits
Prerequisites: RAD 102, RAD 119, RAD 127
Corequisite: RAD 128
Radiographic principles of image acquisition and evaluation are examined. Imaging physics principles of electricity, magnetism and x-ray circuitry are presented. The laboratory component is designed to demonstrate the application of image acquisition and evaluation. [Spring offering]
2 lecture / 2 laboratory hours

RAD 127 Radiographic Procedures I 6 credits
Prerequisite: formal acceptance into professional phase of Radiography program
Corequisites: RAD 102, RAD 119
Focuses on standard radiographic positioning and related medical terminology of the chest, abdomen, and upper and lower extremities with laboratory simulation and evaluation. Students acquire correlated clinical experience and begin the clinical competency evaluation process at a clinical affiliate. Radiographic image analysis is assigned. [Fall offering]
3 lecture / 3 laboratory / 210 clinical hours

RAD 128 Radiographic Procedures II 6 credits
Prerequisites: RAD 102, RAD 119, RAD 127
Corequisite: RAD 120
Focuses on standard radiographic positioning and related medical terminology of the bony thorax, pelvic girdle, upper femora, and vertebral column with laboratory simulation and evaluation. Students acquire correlated clinical experience and continue the clinical competency evaluation process at a clinical affiliate. Radiographic image analysis is assigned. [Spring offering]
2 lecture / 3 laboratory / 225 clinical hours

RAD 207 Clinical Experience 2 credits
Prerequisites: RAD 120, RAD 128
Corequisite: RAD 117
Students participate in clinical education at a clinical affiliate, performing radiographic procedures in accordance with the clinical competency evaluation process. Radiographic procedures range from routine to complex and are performed on all populations, pediatric through geriatric. Radiographic image analysis is assigned. [Summer offering]
225 clinical hours

RAD 217 Advanced Imaging Modalities 3 credits
Prerequisites: RAD 117, RAD 207
Corequisite: RAD 228
Presents an overview of special radiographic procedures and advanced imaging and therapeutic technologies. [Fall offering] 3 lecture hours

RAD 224 Introduction to Pathology 2 credits
Prerequisites: RAD 217, RAD 228
Corequisites: RAD 232, RAD 240
Survey of the disease process and pathological conditions. Includes an in-depth study of diseases commonly demonstrated radiographically. [Spring offering] 2 lecture hours

RAD 228 Radiographic Procedures III 7 credits
Prerequisites: RAD 117, RAD 207
Corequisite: RAD 217
Focuses on standard radiographic positioning and related medical terminology of the urinary system, alimentary canal, biliary system and cranium with laboratory simulation and evaluation. Students acquire correlated clinical experience and continue the clinical competency evaluation process at a clinical affiliate. Radiographic image analysis is assigned. [Fall offering]
2 lecture / 3 laboratory / 340 clinical hours

RAD 232 Imaging Equipment and Radiography Seminar 4 credits
Prerequisites: RAD 117, RAD 207
Corequisites: RAD 224, RAD 240
Evaluation of radiographic equipment in tandem with quality control standards to ensure optimal diagnostic images. Includes discussion of state, federal and non-governmental requirements. The seminar focuses on professional development and helps students prepare for the A.R.R.T. examination. [Spring offering] 3 lecture / 2 laboratory hours

RAD 240 Advanced Clinical Experience I 3 credits
Prerequisites: RAD 217, RAD 228
Corequisites: RAD 224, RAD 232
Offers advanced clinical experience in all aspects of radiologic technology in cooperation with clinical affiliates. Students acquire clinical experiences and proficiencies sufficient to demonstrate competency in a specified number and variety of diagnostic radiographic procedures. Radiographic image analysis is assigned. [Spring offering]
340 clinical hours

RAD 242 Advanced Clinical Experience II 2 credits
Prerequisites: RAD 224, RAD 232, RAD 240
In cooperation with clinical affiliates, students enhance proficiency in all aspects of radiologic technology by performing diagnostic radiographic examinations on a variety of patients. Competency evaluations and academic assessments test skills expected of entry-level radiographers. [Summer offering]
225 clinical hours

REL — RELIGIOUS STUDIES

GenEd HUMANITIES

REL 101 Introduction to Religious Studies 3 credits
An introduction to the study of religions, focusing on the nature of religious beliefs and practices, such as sacred power, myths, texts, art and rituals, the problem of evil, and the relationship between cultures, ethics and religions. 3 lecture hours

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

REL 102 Living World Religions 3 credits
A comparative study of the world's major religions, through a critical exploration of the essential teachings and cultural context of Hinduism, Buddhist, Judaism, Christianity, Islam, Daoism, Confucianism among others, including pre- and post-colonial African and American traditions.
3 lecture hours

SOC — SOCIOLOGY

GenEd SOCIAL SCIENCE

SOC 101 Introduction to Sociology 3 credits
Corequisite: ENG 101 or college-level eligibility
An introduction to the sociological analysis of society and culture, including the origin and design of political, economic, and social institutions such as religion, the family, class and caste, education, values, norms, roles, and sociocultural change. Students learn to analyze, evaluate, and critique social structures. 3 lecture hours

SOC 104 Sociology of Education 3 credits
Corequisite: ENG 101 or college-level eligibility
This class will be an overview of the relationship between school and society. The fundamentals of the field of sociology will serve as a foundation for the exploration into educational issues. Some topics will include the school as an agent of social change, the political arena, demographics and socioeconomic factors impacting education, the profession of teaching, and other issues surrounding public education. 3 lecture hours

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

SOC 132 Introduction to Women's and Gender Studies 3 credits
Corequisite: ENG 101 or college-level eligibility
[also offered as WGS 132] An introduction to major theories and ideas developed within feminism and the field of gender studies. Specific topics include theoretical explanations of gender; representations of gender; economic, social, and political implications of gender constructs; and cross-cultural perspectives on gender. Texts, films, and other resources contribute toward an understanding of these issues. 3 lecture hours

GenEd SOCIAL SCIENCE / DIVERSITY AND GLOBAL PERSPECTIVE

SOC 201 Marriage and the Family 3 credits
Prerequisite: SOC 101 or SOC 107 with a minimum C grade
Analyzes and evaluates the family as an institution that reflects cultural values, norms and ideals. Topics include gendering, pre-marital sex norms, mate selection, family roles, child rearing, and family structures. 3 lecture hours

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

SOC 209 Racial, Ethnic and Minority Groups 3 credits
Prerequisite: SOC 101 or SOC 107
This course explores the social construction of race, the meaning of racism, dynamics of racial and ethnic conflict, oppression, and social change. Topics may include the reasons for and conflicts over immigration; patterns of group conflict; struggles with assimilation, acculturation, and other models of dominant/minority group conflict. 3 lecture hours

SOC 166 Sociology of Death and Dying 3 credits
Prerequisite: ENG 101 (Co)
The course explores the human relationship to our own mortality through the lens of sociology. Students examine rituals, grieving processes, ethical and legal issues, spiritual concerns, and the impact of death on individuals and society. Emphasis is placed on understanding diverse beliefs and practices surrounding mortality across global and historical contexts. 3 lecture hours

SOC 214 Sociology of Drug Use and Behavior 3 credits
Prerequisite: SOC 101 or SOC 107 with a minimum C grade
Analysis of the political, economic, and cultural ramifications of drugs in American society within a global context. Specific topics include constructing drug use and the user as a social problem and the implications for social policy and social control (legislation, prevention, and treatment).
3 lecture hours

SPA — SPANISH

Note: Students who have taken two or more years of a foreign language, and have done so in the last two years, should begin that language at the 200 level or switch to a new language. If there is doubt, placement will be determined by testing or consultation with the academic division.

GenEd HUMANITIES

SPA 101 Beginning Spanish I 3 credits
Spoken communication in Spanish is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced. 3 lecture hours

GenEd HUMANITIES

SPA 102 Beginning Spanish II 3 credits
For students who either completed SPA 101 or have otherwise gained elementary prior knowledge of Spanish. Spoken communication in Spanish is the goal and means of instruction. Reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar and culture are introduced. 3 lecture hours

SPA 121 Spanish for Health Providers I 3 credits
For healthcare students and professionals. Spoken communication in Spanish is both the goal and means of instruction. Within the context of providing healthcare, medicine and well-being, reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar is introduced. 3 lecture hours

SPA 122 Spanish for Health Providers II 3 credits
For healthcare students and professionals. Spoken communication in Spanish is both the goal and means of instruction. Within the context of providing healthcare, medicine and well-being, reading and writing are assigned out of class to facilitate effective listening and speaking practice in class. Basic grammar is introduced.
3 lecture hours

GenEd HUMANITIES

SPA 151 Intermediate Spanish I 3 credits
For students who either completed SPA 102 or have otherwise acquired reading and speaking abilities in Spanish at a high-beginner level. Reading, writing, listening, and speaking are the means and goal of instruction. Vocabulary and grammar practiced on topics of culture, politics, and history.
3 lecture hours

GenEd HUMANITIES

SPA 152 Intermediate Spanish II 3 credits
Continuation of SPA 151; not strictly sequenced. For students who either completed SPA 102 or have otherwise acquired reading and speaking abilities in Spanish at a high-novice level. Reading, writing, listening, and speaking are the means and goal of instruction. Vocabulary and grammar practiced on topics of culture, politics, and history.
3 lecture hours

GenEd HUMANITIES

SPA 251 Advanced Spanish I 3 credits
For students who either completed SPA 152 or have otherwise acquired reading, writing, and speaking abilities in Spanish at mid to high-intermediate level. Conversation course on Hispanic culture through reading and interpreting authentic Hispanic texts. Taught entirely in Spanish. Develops speaking and writing skills, builds vocabulary for debate, conversation, and class discussion.
3 lecture hours

GenEd HUMANITIES

SPA 252 Advanced Spanish II 3 credits
For students who either completed SPA 152 or have otherwise acquired reading, writing, and speaking abilities in Spanish at mid to high-intermediate level. Emphasizes oral practice of grammar with explicit review of grammatical constructions. Taught conversationally in Spanish within topics of Hispanic culture through Hispanic texts. Develops speaking and writing. 3 lecture hours

SST — SECURITY SYSTEMS TECHNOLOGY

SST 200 Physical Security Product Technologies 3 credits
Prerequisites: NET 103 and NET 104 or equivalent experience
Addresses the operation and integration of physical security products and technologies including IP-based video surveillance equipment, analytics software, and physical security information management (PSIM), how to satisfy the needs of end user customers by reducing operating costs, and how these technologies keep assets safe around the world. 2 lecture / 2 laboratory hours

SST 210 Security Project Management **3 credits**

Prerequisite: SST 200

Examines the role of the security project manager, including the concepts and tools of professional project management. Topics include managing costs, assuring quality, and controlling all aspects of projects throughout the lifecycle, plus fundamental factors affecting a given project, such as stakeholder influence, cash flow, and risk management.

2 lecture / 2 laboratory hours

SST 220 Systems Integration: A Business Blueprint **3 credits**

Prerequisite: SST 200

Students learn to build a security solution which combines equipment, engineering and service, analyze the attributes of products and services, assess customer needs, align organizational strategy to leverage the most powerful features and strengths of products and services, and create a system to meet a client need or solve a client problem. 2 lecture / 2 laboratory hours

SST 230 Security Sales: The Consultative Approach **3 credits**

Prerequisite: SST 200

An introduction to the sales process, focusing on security solutions. Students learn how to organize the sales effort; assess customer needs and present security solutions; organize constituencies to develop, design, and implement security systems solutions; assess return on security investment; manage the customer experience; and maintain consultative, profitable customer relationships.

2 lecture / 2 laboratory hours

SUS — SUSTAINABILITY

SUS 101 Introduction to Sustainability **3 credits**

Prerequisites: ENG 024, ENG 034

Examination of the fundamental concepts and principles supporting long-term preservation and availability of natural resources and ecological balance. Factors of sustainability explored include global population growth and consumption, climate change, energy, ecosystems, and community design. 3 lecture hours

THR — THEATRE

GenEd HUMANITIES

THR 101 Introduction to Theatre **3 credits**

Beginning study of the theatre as an art form, examines how a dramatic text is transformed into a stage production. Students read and analyze plays to understand theatre production practices – historical as well as current – and dramatic theory. Requires attending current theatre productions. [Fall and Spring offering] 3 lecture hours

THR 102 Stagecraft **3 credits**

Introduction to the skills and practice of technical theatre. Studies include elementary carpentry and set construction, scene painting, shop procedures, lighting, cost efficiency, and safety. Students work on college theatre productions. [Fall and Spring offering] 2 lecture / 2 laboratory hours

THR 104 Fundamentals of Acting **3 credits**

Introductory course for both actors and non-actors, examines the history and theory of acting with emphasis on Stanislavski and 20th century methods. Students participate in breathing, relaxation, and centering exercises, theatre games, and improvisational work to develop basic acting skills. Study includes the fundamentals of text analysis, group rehearsal dynamics, and verbal evaluation of other acting work. The class concludes with a public performance. [Fall and Spring offering]

2 lecture / 2 laboratory hours

THR 105 Acting II: Principles of Characterization **3 credits**

Prerequisite: THR 104

Continuation of the skills developed in THR 104. Focuses on the actor's movement and voice skills to support character work. Students utilize Michael Chekhov's Acting Technique, mask work, and improvisation to broaden basic acting skills. Attendance at dance, chorus, and theatre productions is required. [Spring offering]

2 lecture / 2 studio hours

THR 150 Scenic Techniques for the Entertainment Industry **3 credits**

Prerequisites: ETT 102, THR 102 with a minimum C grade

Through a variety of projects, students are introduced to fundamental techniques and materials used in scenic art. Explores color theory, various media, proper preparation of surfaces, different painting techniques, Pissaro shapes, cartooning backdrops, trompe l'oile, and teamwork. Examines ways these techniques and materials are used in the theatre and other entertainment industries including film, television, theme parks, and casinos. [occasional offering]

2 lecture / 2 laboratory hours

THR 152 Lighting Technology 3 credits
Prerequisite: ETT 102
Introduction to stage lighting and to the aesthetics of scenic lighting as a visual art. Involves hanging, alignment, focusing, maintenance, and operation of various types of stage lighting fixtures. Students are required to work as a lighting technician at approved venues.
2 lecture / 2 laboratory hours

THR 207 Scene Study I 3 credits
Combines literary and theatrical skills. Students analyze scenes from plays, screenplays, and nondramatic literature to discover how theatre artists use character, setting, circumstance, and dialogue when transforming text into performance. The interaction of writers, actors, and directors in developing and presenting scenes in performance is also observed. The class concludes with a public performance. [Fall offering] **3 lecture hours**

GenEd HUMANITIES

THR 210 Theatre History: Classical to Elizabethan 3 credits
A study of the evolution of theatre from classical Greek and Roman traditions through the Elizabethan period. Emphasis on the play in performance reflecting the changing physical theatre, as well as the social, political, and artistic currents of each period. [Spring offering] **3 lecture hours**

GenEd HUMANITIES / DIVERSITY AND GLOBAL PERSPECTIVE

THR 212 Central Voices in World Drama 3 credits
Prerequisite: ENG 102 or divisional permission
Introduces students to important dramatic texts and examines them beyond the page as blueprints for performance. Emphasizes playwriting conventions, elements, styles, trends, and movements to chart changing dramaturgy and production practices in the world. Some playwrights include Christopher Marlowe, Henry David Hwang, Tennessee Williams, Bertolt Brecht, Amiri Baraka, Arthur Miller, Caryl Churchill, and Wole Soyinka. [Fall offering] **3 lecture hours**

THR 217 Theatre Workshop 3 credits
Prerequisites: THR 104 and THR 105 and/or permission of instructor
A practical study of theatrical production by intensive script study and supervised technical projects which culminates in performances for a live audience. Students apply techniques they have learned in prior acting and technical classes to the research, rehearsal and performance of a role in a fully realized theatrical production. [Spring offering]
1 lecture / 5 laboratory hours

THR 252 Lighting Design 3 credits
Prerequisites: ETT 102, THR 152 with a minimum C grade
Fundamentals of lighting design. Analysis of a script for lighting and development of a workable design concept. Through this concept and an evaluation of the performers' spatial relationships in the production, students generate light plots and the associated paperwork common to a production. Students are required to work as a lighting designer at approved venues. **2 lecture / 2 laboratory hours**

VPA — VISUAL AND PERFORMING ARTS

VPA 228 Artistic Collaboration Workshop 3 credits
Prerequisite: ENG 101
Open to actors, dancers, musicians, media professionals, and fine artists. Alternates between generating new performance work and examining the history of collaboration among established artists of different disciplines in Modernist and Postmodernist movements. Students work with the materials of their specific craft while taking inspiration from the other artistic movements. Participants must attend all sessions, and all assignments require rehearsals outside of class time. [Fall offering] **2 lecture / 2 laboratory hours**

WGS — WOMEN'S AND GENDER STUDIES

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

WGS 132 Introduction to Women's and Gender Studies 3 credits
Corequisite: ENG 101 or college-level eligibility
[also offered as SOC 132] An introduction to major theories and ideas developed within feminism and the field of gender studies. Specific topics include theoretical explanations of gender; representations of gender; economic, social, and political implications of gender constructs; and cross-cultural perspectives on gender. Texts, films, and other resources contribute toward an understanding of these issues. **3 lecture hours**

GenEd DIVERSITY AND GLOBAL PERSPECTIVE

WGS 221 Seminar in Women's and Gender Studies 3 credits
Prerequisites: ENG 102 with a minimum C grade; 9 credits of electives as listed in the Women's and Gender Studies guidelines
An in-depth interdisciplinary exploration of the contributions of the social sciences, the behavioral sciences, literature, and the arts to the study of gender in society. Specific topics include feminist theories, feminist methodologies, and women and gender issues in relation to culture, politics, and the economy. Texts, films, and other resources contribute toward an understanding of these issues. **3 lecture hours**

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