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.

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

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**

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

Business, Technology, and Professional Studies Division

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

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

Business, Technology, and Professional Studies Division

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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.

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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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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
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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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NOTE: All program listings are subject to periodic updates.
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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

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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

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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.)

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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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

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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

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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.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_degree**

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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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

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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.
Please consult your program advisor, academic division, or **www.mccc.edu/programs_certificate**

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

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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

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Business, Technology, and Professional Studies Division

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