2024-2025 Academic Year

Computer Information Systems
Associate in Science Degree in Information Systems (A.S.)
Certificate of Proficiency: Database Administration

Business, Technology, and Professional Studies Division
609.570.3482 admiss@mccc.edu

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.

SEE ALSO:
Computer Science degree program
Computer Science certificate program
Computer Support Specialist certificate program
Data Analytics certificate program
Database Concepts and Skills Associate certificate program
Information Technology degree program
Information Technology: Cybersecurity degree program
IT System Analyst Associate certificate program
Mobile and Web Computing certificate program
Oracle SQL Programming and Database Design Specialist certificate program
Web Development certificate program

DEGREE CURRICULUM
2024-2025 Academic Year
INFO.SYS.AS
CIP 110201

The course sequence below represents a recommended example of how this degree program can be completed in two years, presuming a Fall Term start and satisfaction of all Developmental Studies (foundation courses) requirements and prerequisites. Actual approaches toward completion depend on each student's anticipated transfer institution, career objectives, or other individual circumstances.

Students are encouraged to meet regularly with an academic advisor or Success Coach to consider options, establish plans, and monitor progress.

Code	Course (lecture/lab hours)	Credits	To Do This Semester
FIRST SEMESTER			
ENG 101	English Composition I (3/0)	3	✓ Meet with your faculty advisor to complete an academic plan. Make sure you are aware of any course prerequisites you may need to take, and how long it will take to complete your degree.
MAT 151	Calculus I for the Mathematical and Physical Sciences	4	
	• Or consult academic advisor if lower course level more appropriate.		
NET 102	Introduction to PC Hardware and Software (2/3)	3	✓ Use your online tools: Check your MercerMail daily, utilize features of Office 365, and get to know Student Planning.
IST —	Computer Concepts requirement (2/2)	3	
	• Select from IST 101 or 102.		
— —	Humanities general education elective	3	✓ Take advantage of Learning Centers or Online Tutoring to support your studies and assignments.

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	3

- Select from COS 101 or IST 109. Consult academic advisor for IST 108 substitution.

✓ Transitioning to college can be challenging. Meet with your Success Coach for guidance and support.
✓ Apply for financial aid by May 1.
✓ Contact professors with questions and use their office hours to develop a connection.
✓ Apply for Continuing Student scholarships at www.mccc.edu/m-scholarships.
✓ Begin attending college transfer events and visit campuses. Be sure to visit the Transfer Services and Career Services offices to get to know how the transfer process works and to explore career options.
✓ Plan for how you will complete transfer applications while finishing your classes.

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)	4

- Consult academic advisor for PHY 101 substitution.

✓ Keep in contact with each professor and your faculty advisor. Make sure you are on track to graduate.
✓ Complete your applications to desired transfer institutions.
✓ Develop team and leadership skills by getting involved in activities and clubs.
✓ Manage your stress! Take advantage of the MCCC pool, Fitness Center, free yoga and Zumba. Reach out for counseling or other support if you need it. Your Success Coach can connect you with resources.

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)	

✓ Apply for financial aid by May 1.
✓ Talk to your faculty advisor and the Transfer office for advice on how to successfully transition to a new school.

Code	Course (lecture/lab hours)	Credits	
NET 256	Cloud Foundations (2/2)	3	✓ Apply for Graduating Student scholarships at www.mccc.edu/m-scholarships.
	• Consult academic advisor for other IST or NET course substitution.		
— —	Social Science general education elective	3	
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CERTIFICATE CURRICULUM
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CIP 521201

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 Success Coach to explore such opportunities.

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)	4
	• Must be taken in sequence.	
IST 263	Database Administration I (3/2)	4
	• Must be taken in sequence.	
IST 264	Database Administration II (3/2)	4
	• Must be taken in sequence.	
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