

COMPUTER STUDIES AND INFORMATION PROCESSING, NETWORKING TECHNOLOGY - ASSOCIATE IN SCIENCE



CNTD

Knight Campus, Warwick only

Networks continue to expand in all aspects of our personal activities in business, manufacturing, education, and health care. This program provides balanced coverage of technology fundamentals, emphasis on this concentration prepares students for careers in modern office environments, focused on both client/server technologies and networking technology. Importance is placed on operating principles of programming, hardware, software, networking models, network operating systems, internetworking components, and industry standards along with hands-on laboratory activities for developing practical problem-solving skills. Students develop the ability to design, configure, secure, and troubleshoot basic local area networks (LANs) and internetworks using servers, routers, and switches. Integrated into the program are courses that prepare students to sit for both the server and networking certifications. Depending on the path taken, students can choose between networking or programming emphasis.

Note: Students enrolled in this program must earn a grade of at least C in all computer course requirements and must maintain a 2.0 GPA. Many courses require prerequisites, corequisites and/or testing. See course descriptions for details (<https://catalog.ccri.edu/course-descriptions/>).

Program Learning Outcomes

Upon completion of this program, a student will be able to:

1. Show Preparation for international exams/Certifications.
2. Research information and technologies on networking, operating systems, and cybersecurity.
3. Translate concepts and implement them in different working business environments.
4. Demonstrate oral communication skills such as presentation for an audience, discussions, and debates.
5. Use visual aids effectively to support an oral presentation.
6. Demonstrate writing abilities such as reports, instructions, and documentation.
7. Demonstrate critical thinking in problem-solving.
8. Develop and demonstrate troubleshooting skills.
9. Comply with today's business and industry standards for networking, operating systems, and cybersecurity.

Requirements

Code	Title	Hours
General Education Requirements		
COMM 1010	Communication Fundamentals ¹ HUMN; Non-Written Communication; Social and Professional Responsibilities	3

ENGL 1010	Composition I (or ENGL 1010A) HUMN; Written Communication; Information Literacy	3
General Education Elective (https://catalog.ccri.edu/academic-information/general-education/courses-approved-general-education-credits/)		3
Mathematics Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#mathgened/) ¹ ; MSCI		3
Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#sscigened/) SSCI		3
Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#sscigened/) SSCI		3
Choose ONE of the following:		3-5
Mathematics Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#mathgened/) ¹ ; MSCI		
Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#scigened/) ^{MSCI}		
Subtotal		21-23
Major Core Requirements		
CNVT 1810	Networking 1	3
CNVT 1820	Networking 2	3
CNVT 1830	Networking 3	3
CNVT 2030	Core Networking ³	5
COMI 1170	Scripting for System Administration	3
COMI 1800	Computer Networking Software Linux	3
COMI 1840	Microsoft Windows Server	3
COMI 2020	Network Security Software Fundamentals	3
COMI 2036	Introduction to Computer Ethics	3
COMI 2037	Foundations of Cybersecurity	3
COMP 1230	Systems Analysis and Design ²	4
Choose ONE of the following:		3-4
CNVT 2100	Basic Voice Over Internet Protocol (VoIP)	
CNVT 2200	Network Security Hardware	
Subtotal		39-40
Total Hours		60-61

¹ See table of Math Electives below.

² Computer Studies Department recommends taking Systems Analysis and Design[^] (COMP 1230) in your final semester

³ Core Networking (CNVT 2030) is offered in the Spring semester only.

[^] Work-based learning course

Math Electives

Code	Title	Hours
MATH 1139	Mathematics for Liberal Arts Students (MATH 1139C)	3
MATH 1240	Statistical Analysis I	4
MATH 2111	Pre-Calculus Mathematics	4
MATH 2138	Quantitative Business Analysis II	3
MATH 2141	Calculus I	4
MATH 2142	Calculus II	4
MATH 2243	Calculus III	4

Recommended Course Sequence

Course	Title	Hours
Year 1		
Semester 1		
CNVT 1810	Networking 1	3
COMI 1800	Computer Networking Software Linux	3
ENGL 1010	Composition I (ENGL 1010A)	3
Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#sscigened/)		3
Choose ONE of the following:		3
Humanities Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#humngened/)		
Mathematics Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#mathgened/)		
Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#scigened/)		
Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#sscigened/)		
Hours		15
Semester 2		
CNVT 1820	Networking 2	3
COMI 1840	Microsoft Windows Server	3
COMI 2037	Foundations of Cybersecurity	3
COMM 1010	Communication Fundamentals [^]	3
Mathematics Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#mathgened/) ¹		3
Hours		15
Year 2		
Semester 1		
CNVT 1830	Networking 3	3
COMI 1170	Scripting for System Administration	3
COMI 2020	Network Security Software Fundamentals ²	3
COMI 2036	Introduction to Computer Ethics	3
Choose ONE of the following:		3
Humanities Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#humngened/)		
Mathematics Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#mathgened/)		
Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#scigened/)		
Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#sscigened/)		
Hours		15
Semester 2		
COMP 1230	Systems Analysis and Design [^]	4
CNVT 2030	Core Networking ³	5
Choose ONE of the following:		3-4
CNVT 2100	Basic Voice Over Internet Protocol (VoIP)	
CNVT 2200	Network Security Hardware	
Choose ONE of the following:		3

Humanities Elective (<https://catalog.ccri.edu/academic-information/general-education/course-attributes/#humngened/>)

Mathematics Elective (<https://catalog.ccri.edu/academic-information/general-education/course-attributes/#mathgened/>)

Science Elective (<https://catalog.ccri.edu/academic-information/general-education/course-attributes/#scigened/>)

Social Science Elective (<https://catalog.ccri.edu/academic-information/general-education/course-attributes/#sscigened/>)

Hours **15-16**

Total Hours **60-61**

¹ For list of MATH courses that fulfill the Math elective requirement for this program, please see table of Math Electives on the Networking Technology Requirements page (p. 1).

² This course is offered in the Fall semester only.

³ This course is offered in the Spring semester only.

[^] Work-based learning course

Transfer

Please meet with an Academic Advisor/Student Success Coach (<https://ccri.edu/advising/>) if you are interested in earning a bachelor's degree. Your Academic Advisor will help you select the courses that best prepare you for transfer to a four-year college or university.

Check out the Joint Admissions Agreement (<https://ccri.edu/jaa/>) if you are interested in transferring to Rhode Island College or the University of Rhode Island. The JAA program offers seamless transfer to RIC or URI with additional benefits. Transfer information, events, and articulations are available on the Transfer Center website (https://ccri.edu/oes/transfer_center/).