

**Program Description:**

The Radio Frequency Identification (RFID) concentration in the Computer, Software and Networking Technology Associate in Science degree program is specifically designed to combine IT knowledge with RFID expertise for employment in industries, such as retail, transportation, healthcare and government. The program is ideal for individuals with basic math, science and information technology knowledge and an interest in RFID or other wireless technologies. In addition to RFID technology, coursework includes computer and networking security, embedded programming, networking, technical mathematics, computer systems, and computer applications and languages. Employability skills required in industry, and crucial to job placement and career success, are emphasized throughout the program. Hands-on training will be provided in a modern new RFID laboratory. The program's general education component adds the broader-based educational background valued by all employers. The program features industry internships or specialized lab projects for qualifying students, depending on availability.

Career and Transfer Outlook:

Graduates of the program may be employed as RFID technicians in R&D, field equipment installation, and customer support positions. Graduates can anticipate working in computer, software and networking related industries or other industries deploying RFID technology. Some examples of positions that MCC CSNT program graduates have held in the past are electronics, software, network, test and customer service technicians. Many graduates of the CSNT program have also continued their studies toward a bachelor's degree in engineering, engineering technology and information technology. The RFID concentration will expand potential opportunities for graduates into a new and growing field. Articulation discussions for the RFID concentration are in the early stages.

Program Outcomes:

Graduates of the RFID program are prepared to:

- Test reader and tag positioning and evaluate the effects of RF interference, reflection and absorption on performance;
- Perform a site survey and analyze the pertinent characteristics that impact a RFID system installation;
- Design a RFID system, configure equipment and middleware, program tags and databases to address system functional requirements, site characteristics and information security;
- Apply ethical principles to analyze business cases that illustrate issues involving RFID;
- Work effectively in teams;
- Communicate effectively verbally and in writing.

RADIO FREQUENCY IDENTIFICATION (RFID) CONCENTRATION • Associate in Science in Computer, Software & Networking Technology

BEDFORD CAMPUS AND LOWELL CAMPUS - DAY AND EVENING

✓	COURSE #	COURSE TITLE	CREDITS	PREREQUISITES
_____	NST 101	Principles of Electric Circuits	4	Completion of or current enrollment in TMA 095 or TMA 075 or MAT 080 or placement above MAT 080
_____	NST 111	Digital Systems Fundamentals	3	Completion of or current enrollment in MAT 070 or placement above
_____	NST 121	Computer System Fundamentals	3	Completion of or current enrollment in NST 111
_____	NST 171	Computer Interfacing	3	NST 101, NST 121, and completion of or current enrollment in NST 165
_____	NST 181	Networking I	3	Completion of or current enrollment in MAT 070 or placement above
_____	NST 241	Digital Communications	3	NST 101, NST 111, and completion of TMA 096 with a grade of C or better
_____	NST 281	Computer Network Security	3	NST 181 or permission of instructor
_____	RFD 151	Introduction to RFID	3	NST 101, NST 111, NST 121 or equivalent experience with permission of instructor
_____	RFD 161	RFID Systems Programming	4	Completion or concurrent enrollment in RFD 151, completion of NST 101, NST 111, NST 121 or equivalent experiential knowledge and permission of instructor. Enrollment in or completion of NST 181 or equivalent experiential knowledge and permission of instructor.
_____	RFD 201	RFID Systems	3	RFD 151, RFD 161
_____	RFD 211	RFID Standards & Certification	3	RFD 151, RFD 161, Corequisite RFD 201
_____	RFD 250	RFID Practicum	3	Permission of program coordinator
_____	ECO 120	Economics & Management in High-Tech Industry	3	Placement above or successful completion of ENG 060 eligible for ENG 101, and completion of MAT 070 or placement into MAT 080
_____	ENG 101	English Composition I	3	C- in ENG 071 or eligible for ENG 101 and placement above or successful completion of ENG 060
_____	ENG 102	English Composition II: An Introduction to Literature	3	ENG 101
_____	PHY 110	Physics for Networking Systems	3	Grade of C or better in NST 101, NST 111 and TMA 096
_____	TMA 075	Applied Technical Math for Computers and Networking I	4	A grade of C or better in MAT 070
_____	TMA 096	Applied Technical Math II	4	TMA 075 or TMA 095
_____		Behavioral Science Elective	3	
_____		Humanities Elective	3	
			<u>64</u>	

Helpful Hints:

Incoming students who are eligible for Applied Technical Math for Computers and Networking I (TMA 075) should take TMA 075, as well as Principles of Electric Circuits (NST 101), Digital Systems Fundamentals (NST 111) and Computer System Fundamentals (NST 121) in the first semester. Students who test into MAT 070 or below on the college placement test should take the math needed to qualify for TMA 075 as soon as possible, and are encouraged to enroll in Exploring Technology (ITC 100).

Note:

It is essential for students to work closely with their academic advisor for proper course sequencing. Additional coursework may be required based on college placement testing.