

IT Controlled Electronics Systems Certificate – 5271

Requirements Effective Spring 2016

Program Planning Guide

Program Description: This certificate is intended for students who already have an Associates of Bachelor’s degree, or substantial professional experience, in an information technology related field.

The certificate prepares students for employment as electronic systems application of facilities engineers, security and field technicians, systems and sales consultants, technical support staff. Typical duties include installation, maintenance, and monitoring information technology systems and IT-controlled electronic systems such as security systems, entertainment systems, and HVAC systems.

Prerequisites: Many classes have prerequisites. Prerequisites are those classes that prove eligibility for entry-level classes by testing or by having satisfied prior course work. Course work earned at other institutions must be unofficially evaluated or approved by a program advisor before registering. Courses in this certificate with pre-requisites are marked with an asterisk (*). See catalog for more information.

IT Controlled Electronics Systems Certificate Prerequisites: BUS 169 or instructor permission.

Note: Advanced placement testing, work experience, and transfer of credits may result in course waivers, credit transfer, and advanced placement.

Program Requirements		
Course Number	General Education/Related Instruction Requirements (20 credits)	Credit Hours
BUS 118*	Project Management Introduction and Overview (see Note 1)	5
BUS 236	Interpersonal Communications for The Workplace	5
Course Number	Degree Requirements (25-30 credits)	
EET 131	IT Essentials I - A+ Certification	5
EET 137*	Introduction to Robotics (see Note 2)	5
EET 161	D.C. Principles of Electronics (see Note 3)	5
	Microsoft Track	
IT 122*	Network Operating Systems 1 (see Note 4)	5
IT 124*	Network Operating Systems 2 (see Note 5)	5
	UNIX Track	
IT 135	Introduction to UNIX	5
IT 138*	UNIX for Network Administration (see Note 6)	5
	CISCO Track	
IT 142*	Network Management – CISCO I (see Note 7)	5
IT 144*	Network Management – CISCO II (see Note 8)	5
IT 146*	Network Management – CISCO III (see Note 9)	5
	Total Credits: (excluding pre-requisites)	35-40

Notes:

1. Must have BUS 169; BUS 236.
2. Must have MATH081 or placement into MATH084 or higher.
3. Completion of high school or Elementary Algebra strongly recommended.
4. Must have EET 131, IT 120, IT 142 or instructor permission.
5. Must have IT 122 or permission.
6. Must have IT 135 or permission.
7. Must have EET131, IT122 (may be taken concurrently) or instructor permission.

REV Date: 11/15/2016

For more information about our graduation rates, the median debt of students who have completed these program, and other important information, please visit our website at <https://northseattle.edu/about-north/gainful-employment-information>

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8. Must have IT 142 or instructor permission.
9. Must have IT 142, IT 144, or instructor permission.

Course Sequence: This program of study is outlined by quarter, and courses should be taken in the indicated sequence. However, it should not be concluded that students will always proceed through their program of study exactly as prescribed here. The number of quarters listed here is minimal. Not all courses are offered every quarter. Individual student experiences, educational and training background, and personal schedules and demands all may affect the time it takes to finish this program. Also, in general, summer quarter is not considered one of the full-time quarters in the program.

1st quarter: BUS 236, EET 131, EET 137

2nd quarter: EET 161, IT 122 or IT 135 or IT 142

3rd quarter: BUS 138, IT 124 or 138 or IT 144

4th quarter: IT 146 (if needed)

Program Outcomes:

- Understand technical concepts and terms used in the electronics and IT fields.
- Troubleshoot electronic systems, hardware, and network problems.
- Install, configure and test networking devices, servers, workstations, electronic and electrical systems.
- Interact and communicate effectively with users and coworkers to identify network problems and needs for upgrades.
- Integrate IT and electronic systems.
- Locate, evaluate and apply relevant information from various sources.

What Skills do I need to be successful in this field?

- <http://www.onetonline.org/link/summary/49-2098.00> (Security and Fire Alarm Systems Installers)
- <https://www.onetonline.org/link/summary/15-1143.01> (Telecommunication Engineering Specialists)
- <https://www.onetonline.org/link/summary/17-3023.01> (Electronics Engineering Technicians)
- <https://www.onetonline.org/link/summary/17-3023.03> (Electrical Engineering Technicians)
- <https://www.onetonline.org/link/summary/17-3024.00> (Electro-Mechanical Technicians)

What are some potential job titles?

- Security Systems Technician/Installer
- Fire Alarm Technician
- Electronic Systems Technician

Wages, employment trends and pathways

- <http://www.onetonline.org/link/summary/49-2098.00#WagesEmployment> (Security and Fire Alarm Systems Installers)
- <https://www.onetonline.org/link/summary/15-1143.01#WagesEmployment> (Telecommunication Engineering Specialists)

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- <https://www.onetonline.org/link/summary/17-3023.01#WagesEmployment> (Electronics Engineering Technicians)
- <https://www.onetonline.org/link/summary/17-3023.03#WagesEmployment> (Electrical Engineering Technicians)
- <https://www.onetonline.org/link/summary/17-3024.00#WagesEmployment> (Electro-Mechanical Technicians)

NSC Advising Office: (206) 934-3658 <https://northseattle.edu/advising>

Program Website: <https://northseattle.edu/certificates/it-controlled-electronic-systems-certificate>

Program Contact: Tim Fiegenbaum (206) 934-0181 Tim.Fiegenbaum@seattlecolleges.edu

Robert Bunge (206) 934-4530 Robert.bunge@seattlecolleges.edu

CIP: 11.0901 (Computer Systems Networking and Telecommunications)

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