



APPLIED QUALITY AND STANDARDS (2018-2019 Catalog)

Associate in Applied Science

Student Name: _____

Advisor Name: _____

Developmental Education Courses (if required)

English Placement			Math Placement		
<input type="checkbox"/>	ACLS025	Academic Reading and Writing Skills I	<input type="checkbox"/>	MATH020	Pre-Algebra
<input type="checkbox"/>	ACLS026	Academic Reading and Writing Skills II	<input type="checkbox"/>	MATH022	Elementary Algebra
<input type="checkbox"/>	ACLS050	Introduction to Academic Literacy	<input type="checkbox"/>	MATH026	Intermediate Algebra
<input type="checkbox"/>	ENGL027	Writing Skills Workshop			

SEMESTER-BY-SEMESTER PROGRAM MAP FOR FULL-TIME STUDENTS – Courses are listed in preferred order of completion

Plans can be modified to fit the needs of part-time students by adding more semesters

Complete	Semester 1						
	Course #	Course Title	Credits	Course Type	Applies to: Specialized Diploma Certificated Degree	Term/Location Offered (Fall, Winter, Spring, Summer) (Bethlehem, Monroe, Fowler, Online)	Pre-requisites / Co-requisites (PRE / CO)
<input type="checkbox"/>	COLS101	College Success	1	FYE	SD, CERT, AAS	F, SP, SU; Beth, Mo, On	
<input type="checkbox"/>	BUSA114	Manufacturing Cost Control	3	Required	SD, CERT, AAS	F, SP; Beth	
<input type="checkbox"/>	CMTH102	Introduction to Communication	3	Required	SD, CERT, AAS	F, SP, SU; Beth, Mon	
<input type="checkbox"/>	ENGL101	English I	3	Gen Ed	SD, CERT, AAS	F, SP, SU; Beth, Mo, On	PRE: ENGL Placement Policy
<input type="checkbox"/>	MATH150	Introductory Statistics	3	Gen Ed	SD, CERT, AAS	F, SP, SU; Beth, Mo, On	PRE: MATH022 or Placement Policy
<input type="checkbox"/>	QUAL120	Introduction to Metrology	3	Required	SD, CERT, AAS	F, SP; Beth	
	Total Semester Credits:		16				
Complete	Semester 2						
	Course #	Course Title	Credits	Course Type	Applies to:	Term/Location Offered	Pre-requisites/Co-requisites
<input type="checkbox"/>	CISC101	Introduction to Computers	3	Required	SD, CERT, AAS	F, SP, SU; Beth, Mon, On	
<input type="checkbox"/>	ENGG117	Technical Drawings & Specifications	3	Required	SD, CERT, AAS	F, SP; Beth	
<input type="checkbox"/>	ENGG125	Manufacturing Processes	3	Required	SD, CERT, AAS	SP; Beth, Online	
<input type="checkbox"/>	ENGL151T	English II (Technical Writing)	3	Gen Ed	SD, CERT, AAS	F, SP; Beth, Mon	PRE: ENGL101
<input type="checkbox"/>	QUAL130	Geometric Dimensioning & Tolerancing	3	Required	SD, CERT, AAS	F, SP; Beth	
	Total Semester Credits		15				
Complete	Semester 3						
	Course #	Course Title	Credits	Course Type	Applies to:	Term/Location Offered	Pre-requisites/Co-requisites
<input type="checkbox"/>	BUSA252	Quality Management	3	Required	CERT, AAS	F, SP; Beth	
<input type="checkbox"/>	QUAL205	Introduction to Six Sigma	3	Required	CERT, AAS	F, SP; Beth	PRE: BUSA114, QUAL120
<input type="checkbox"/>	QUAL210	Statistical Quality Control	3	Required	CERT, AAS	F, SP; Beth	PRE: MATH159, ENGG125 or ELEC177
<input type="checkbox"/>		Science Elective	3/4	Science	CERT, AAS	F, SP, SU; Beth, Mo, On	
<input type="checkbox"/>		AH, SIT or SSHB Elective	3	Gen Ed	CERT, AAS	F, SP, SU; Beth, Mo, On	
	Total Semester Credits		15/16				

Complete	Semester 4						
	Course #	Course Title	Credits	Course Type	Applies to:	Term/Location Offered	Pre-requisites/Co-requisites
<input type="checkbox"/>	QUAL215	Quality Assurance	3	Required	AAS	F, SP; Beth	
<input type="checkbox"/>	QUAL220	Introduction to TQM	3	Required	AAS	F, SP; Beth	PRE: BUSA114, BUSA252, QUAL205
<input type="checkbox"/>	QUAL221	Applied Quality Practicum	3	Required; WI	AAS	F, SP, SU; Beth	PRE: QUAL201, QUAL215, ENGL101
<input type="checkbox"/>	QUAL225	Introduction to Lean Thinking	3	Required	AAS	F, SP, SU; Beth, Mo, On	PRE: BUSA114, QUAL 210
<input type="checkbox"/>		AH, SIT or SSHB Elective	3	Gen Ed	AAS	F, SP, SU; Beth, Mo, On	
<input type="checkbox"/>		Elective	3	Elective	AAS		
	Total Semester Credits		18				
	Total Degree Credits:		64/65				

Notes:

- Courses in Semester 1 and Semester 2 apply toward the Quality Inspector, Specialized Diploma (as indicated by the SD).
- Courses in Semester 1, Semester 2, and Semester 3 apply toward the Quality Control Technician, Certificate (as indicated by the CERT).
- Science electives include: BIOS104,105,107,110,115,126,150,202,204,206; CHEM105,120,135; GEOG150,210; GEOL201; PHYS101,151,152,215,225

Gen. Ed Electives: 6 Credits from at least two of the following categories:

- Arts & Humanities (AH)
- Social Science, one Societies and Institutions over Time (SIT)
- Social Science, one Scientific Study of Human Behavior (SSHB)
- One course should be Diversity and Global Awareness (D)
- Completion of QUAL 221G satisfies Writing Intensive (WI) requirement.

Contact: Chris Gaylo Director, Center for Advanced Technology cgaylo@northampton.edu 610-332-6260

Program Narrative:

- Northampton's Applied Quality & Standards A.A.S. degree program is designed to prepare students to enter the modern Quality control/Quality assurance field in manufacturing. The program offers career-specific coursework for a student wishing to complete their studies within four semesters. The program also provides course offerings that prepare a student to work as a team player in a variety of manufacturing environments.
- Studies include hands-on use of state-of-the-art inspection & measurement equipment, as well as the latest information & techniques in the field of Quality. Students will learn the desired and marketable skills required to work effectively with the diverse groups found in a manufacturing environment. Emphasis is placed on the development of both technical skills and professional attitudes, values, and ethics. As a student progresses through the program, they will gain critical thinking and decision-making skills needed in today's quality-oriented business environment.
- Graduates of this AAS degree program may continue to a Baccalaureate program; see the section below on transfer to Baccalaureate programs via articulation.

Program Learning Outcomes: Graduates of the program will be able to:

1. Demonstrate an ability to work independently and collaboratively.
2. Interpret international quality standards and specifications and apply them to a quality system within an organization.
3. Demonstrate proficient research and computer skills in data gathering and analysis.
4. Analyze and present data in an acceptable and standardized manner.
5. Solve common manufacturing or service quality-related problems using both a reactive and proactive approach.
6. Demonstrate competent technical writing skills.
7. Demonstrate competent speaking skills when working with diverse groups.

8. Demonstrate a basic framework of technical vocabulary and graphic interpretation applicable to quality technology and a specific industrial process or service.
9. Demonstrate observational, integrative, and synthetic skills.
10. Demonstrate the proper use and care of common mechanical metrology and calibration tools, instruments and equipment.
11. Apply basic "Quality" philosophy, methodology and "statistical thinking" to the continuous quality improvement system in an organization.
12. Describe the key process elements and technology commonly found in various types of manufacturing operations such as foundries, electronics, food and drug packaging, plastics molding, machining, etc. or various types of service organizations.
13. Demonstrate the basic process methodology, equipment operation, and application of industry quality standards found in a specific manufacturing industry such as electronics, food and drug packaging, plastics molding, or machining or a specific service industry such as insurance, banking or health-care.
14. Demonstrate proper application of mathematics to solving quality process-related problems.
15. Apply costing concepts and methods to decisions in implementing design and quality related practices and technology in an organization.

Transfer Information:

- Bloomsburg University-Bachelor of Applied Science in Technical Leadership. (Articulation)
- Pennsylvania College of Technology Bachelor of Science (Articulation)
- Franklin University Bachelor of Science in Applied Management. (Articulation)

Career Information:

- See <https://northampton.emsicc.com/careers/quality-control-analyst/about> for information on career options and earning potential.
 - Quality Control Technician
 - Process Technician
 - Manufacturing Supervisor
 - Quality Supervisor
 - Manufacturing Engineer