



# Welding Technology- Associate in Applied Science (2020-2021 Catalog)

## SEMESTER-BY-SEMESTER PROGRAM MAP FOR FULL-TIME STUDENTS

Courses are listed in preferred order of completion

Plans can be modified to fit student needs by adding more semesters

Choose your courses with your Advisor.

Developmental Education Courses (if required)		
<input type="checkbox"/>	ACLS050	Introduction to Academic Literacy
<input type="checkbox"/>	ENGL027	Writing Skills Workshop

Location: B= BETH, M= MROE, S=SBTH, E= ESTN, D= DIST \*subject to change

complete	Course #	Course Title	Credits	Gen Ed	Fall	Winter	Spring	Summer	Pre-requisites / Co-requisites	
Semester 1	<input type="checkbox"/>	COLS101	College Success	1	B, M, D	----	B, M, D	D		
	<input type="checkbox"/>	WELD105	Introduction to Welding Processes	5	B	---	B	B		
	<input type="checkbox"/>	WELD135	Welding Fabrication & Symbols	2	B	---	B	---	PRE or CO: WELD105	
	<input type="checkbox"/>	EMEC114	Mechanical Skills for the Trades	2	B	---	B	---		
	<input type="checkbox"/>	ENGG117	Technical Drawings & Specifications	3	B	---	B	---		
	<input type="checkbox"/>	CISC101	Introduction to Information Technology	3	CL	B, M, D		B, M, D	B, M, D	
	<input type="checkbox"/>	MATH103	Technical Mathematics	3		B, D	----	B, M, D	----	
		Total Semester Credits:	19							
Semester 2	<input type="checkbox"/>	ENGL101	English I	3	Comm	B, M, D	---	B, M, D	B, M, D	PRE: ENGL Placement Policy
	<input type="checkbox"/>	WELD110	Introduction to Pipe Welding Processes	3		B	---	B	---	PRE or CO: WELD123
	<input type="checkbox"/>	WELD123	Advanced Plate Welding Processes	5		B	---	B	---	PRE: WELD105
	<input type="checkbox"/>	WELD125	GTAW & Semiautomatic Welding Processes	5		B	---	B	---	PRE: WELD105
	<input type="checkbox"/>	OSAH101 or OSAH102	General Industry Outreach Safety Education or Construction Industry Outreach Safety	1		B		B	B	
		Total Semester Credits:	16							
Semester 3	<input type="checkbox"/>	WELD205	Adv Gas Tungste & Semiautomatic Welding Processes	4		B	---	---	---	PRE: WELD110 and WELD125
	<input type="checkbox"/>	WELD224	Pipe Welding Processes II	3		B	----	----	----	PRE: WELD110
	<input type="checkbox"/>	WELD230	Welding & Structural Blueprint Reading	4		B	----	----	----	
	<input type="checkbox"/>	ENGL151T	English II (Technical Writing)	3	Comm	B, M, D		B, M, D		PRE: ENGL101
	<input type="checkbox"/>	PHYS152	Physical Science II	3	Science	B, D	---	B, D	B, D	
		Total Semester Credits:	11							
Semester 4	<input type="checkbox"/>	WELD255G	Introduction to Metallurgy (WI)	3		----	----	B	----	PRE: ENGL151, MATH103, PHYS152, WELD205
	<input type="checkbox"/>	CMTH102	Introduction to Communication	3	Comm	B, M, D	----	B, M, D	B, M, D	
	<input type="checkbox"/>		AH, SIT, or SSHB Elective	3	AH,SIT,SSHB	B, M, D	D	B, M, D	B, M, D	Depends on course selected
	<input type="checkbox"/>		AH, SIT, or SSHB Elective	3	AH,SIT,SSHB	B, M, D	D	B, M, D	B, M, D	Depends on course selected
	<input type="checkbox"/>		Elective*	3			----			Depends on course selected
		Total Semester Credits:	15							
		Total Degree Credits	61							

General Education Requirements		
<input type="checkbox"/>		Diversity
<input type="checkbox"/>	WELD255G	Writing Intensive

Notes: \*Suggested Elective: WELD 235 Welding Inspection or WELD 245 Plasma Arc Cutting  
 WELD245 Plasma Arc Cutting is required for the Welding & Fabrication Certificate  
 OSAH 102 is the recommended course

For the General Education Electives, students must select one course from the list of approved courses in two of the following categories: Arts & Humanities (AH); Social Science: Societies and Institutions over Time (SIT); Social Science: Scientific Study of Human Behavior (SSHB).

Arts & Humanities (AH)
ARTA 100 Art and Visual Thinking
ARTA 101 Art History Survey
CMTH 110 Introduction to the Theatre
CMTH 111 Acting I
CMTH 115 Technical Theatre
CMTH 117 Stagecraft
CMTH 126 The Communication Arts
CMTH 189 Stage Voice and Movement
CMTH 190 Stage Production
CMTH 206 Directing
CMTH 211 Plays: Classical to Contemp. (G-WI)
CMTH 212 Acting II
CMTH 218 Theatre Portfolio
CMTH 220 Introduction to Film
DANC 101 Dance History
DANC 110 Ballet I
DANC 120 Modern Dance I
DANC 130 Jazz I
DANC 120 Ballet II
DANC 220 Modern Dance II
DANC 230 Jazz II
ENGL 201 British Literature I (G-WI)
ENGL 203 Shakespeare (G-WI)
ENGL 205 American Literature I (G-WI)
ENGL 211 Plays: Classical to Contemp. (G-WI)
ENGL 215 Multicultural Adolescent Lit (G-WI)
ENGL 250 Latin American Literature (G-WI)
ENGL 251 British Literature II (G-WI)
ENGL 253 Creative Writing
ENGL 255 American Literature II (G-WI)
ENGL 256 Modern Poetry (G-WI)
ENGL 257 20th Century Lit by Women (G-WI)
ENGL258 Fiction Writing
ENGL 260 Contemporary Literature (G-WI)
ENGL 264 Irish Literature (G-WI)
ENGL 265 African-American Literature (G-WI)
ENGL 267 Poetry Writing
HUMA 121 The American Work Experience (G-WI)
HUMA 140 Intro to Women & Gender Studies (G-WI)
HUMA 150 Nature of the Environment
HUMA210 Creativity and the Origin of Ideas
JOUR 101 Journalism and Society
Modern Language - All MDLA Courses
MUSC 101 Introduction to Music
PHIL 111 On Death and Dying (G-WI)
PHIL 121 World Religions
PHIL 201 Introduction to Philosophy
PHIL 202 Ethics and Moral Problems (G-WI)
PHIL 204 Asian Philosophies
PHIL 211 Ancient Philosophy
PHIL 215 Modern Philosophy
PHIL 225 What is Freedom?

WELD235 Welding Inspection or WELD245 Plasma Arc Cutting are suggested electives. WELD245 Plasma Arc Cutting is required for the Welding & Fab Certificate

Societies & Institutions Over Time (SIT)
CMTH 221 History of Broadcasting
GEOG 101 World Geography
GEOG 151 Geography of the U.S. and Canada (G-WI)
GLBL 130 Intro to Global Studies
GLBL 160 Field Experience & Acad Research in GS
GLBL 230 Global Studies Capstone
HIST 103 Ancient and Medieval History
HIST 113 American History I (G-WI)
HIST 121 The Black Experience (G-WI)
HIST 123 African Civilization
HIST 140 Modern Chinese History
HIST 153 Found of Mod Euro History, 1300-1815 (G-WI)
HIST 163 American History II
HIST 165 The American Experience of Warfare (G-WI)
HIST 166 Civil War and Reconstruction (G-WI)
HIST 168 History of the Middle East (G-WI)
HIST 173 Mod European History, 1815 to Present (G-WI)
HIST 183 Modern American History 1945-Present
HIST 210 History of Mod Science, 1859 to Present
HIST 211 History of Pennsylvania
INTS 201 Implementing Sustainable Energy System...
INTS 202 The Architecture of the City: Classic to Contemp.
POLS 101 Introduction to Political Science
POLS 105 American Constitutional Law (G-WI)
POLS 110 American National Government (G-WI)
POLS 150 Peace Studies & Conflict Resolution (Study Abroad)
POLS 170 Politics of Modern Turkey (Study Abroad)
POLS 202 International Relations
POLS 205 Women and Politics (G-WI)
POLS 251 State and Local Government (G-WI)
SOCA 102 Cultural Anthropology (G-WI)
SOCA 105 American Ethnicity
SOCA 160 Issues in Contemp.Genocide & Mass Violence

Scientific Study of Human Behavior (SSHB)
ECON 201 Macroeconomics
GEOG 121 Environmental Sustainability (G-WI)
GEOG 140 Investigating Climate Change )
GEOG 271 Intro to Geographic Info Systems
HUMA 250 Research Methods in Social Sciences (G-WI)
INTS 250 Study Abroad
PSYC 103 Introduction to Psychology (G-WI)
PSYC 205 Research Methods
PSYC 230 Introduction to Health Psychology
PSYC 235 Dev Child Psychopathology
PSYC 245 Cognitive Psychology
PSYC 255 Abnormal Psychology
PSYC 258 Developmental Psychology (G-WI)
PSYC 265 Psychology of Sex and Gender
SOCA 103 Principles of Sociology (G-WI)
SOCA 125 Sociology of Families (G-WI)
SOCA 210 Sociology of Gender

**Electives for A.A. & A.S. Degrees**  
 All courses except: OXX-level courses; EARL221, 222

Diversity (D) Electives
BIOS 126 Environmental Science
BIOS 210 Environmental Biology
BUSA 115 Intro to International Business
CJST 250 Contemporary Issues in Criminal Justice
CMTH 126 The Communication Arts
CMTH 211 Plays: Classical to Contemporary
CMTH 215 Intercultural Communication
DANC 101 Dance History
ENGL 151L English II (Literature)
ENGL 205 American Literature I
ENGL 211 Plays: Classical to Contemporary
ENGL 215 Multicultural Adolescent Literature
ENGL 250 Latin American Literature
ENGL 251 British Literature II
ENGL 253 Creative Writing
ENGL 255 American Literature II
ENGL 256 Modern Poetry
ENGL 257 20th Century Lit by Women
ENGL 260 Contemporary Literature
ENGL 264 Irish Literature
ENGL 265 African-American Literature
ENGL 267 Poetry Writing
GEOG 101 World Geography
GEOG 121 Environmental Sustainability
GEOG 151 Geography of the U.S. and Canada
GEOG 210 Weather and Climate
GLBL 130 Intro to Global Studies
GLBL 160 Field Experience & Acad Research in GS
GLBL 230 Global Studies Capstone
HIST 113 American History I
HIST 121 The Black Experience
HIST 140 Modern Chinese History
HIST 165 The American Experience of Warfare
HIST 166 Civil War & Reconstruction
HIST 168 History of the Middle East
HIST 173 Mod Euro History: 1815-Present
HIST 183 Modern American History 1945-Present
HUMA 121 American Work Experience
HUMA 140 Intro to Women and Gender Studies
HUMA 150 Nature of the Environment
HUMA210 Creativity and The Origin of Ideas
INTS 201 Implement Sustain Energy Sys in Dev Com
MATH 150 Introductory Statistics
Modern Language - All MDLA Courses
PHIL111 On Death and Dying
PHIL 121 World Religions
PHIL 204 Asian Philosophies
POLS 101 Introduction to Political Science
POLS 105G American Constitutional Law
POLS 150 Peace Studies & Conflict Resolution (Study Abroad)
POLS 202 International Relations
POLS205 Women & Politics
POLS 251 State & Local Government
PSYC 258 Developmental Psychology
SOCA 102 Cultural Anthropology
SOCA103 Principles of Sociology
SOCA 105 American Ethnicity
SOCA 150 Deviance
SOCA160 Issues in Cont Genocide & Mass Violence
SOCA204 Social Problems

**Program Narrative:**

Northampton's Welding Technology A.A.S. degree program is designed to prepare you to enter a modern welding setting. 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 you to work as a team player in a specialized manufacturing environment.

Your studies will include state-of-the-art welding equipment and principles from the American Welding Society. You will learn the marketable skills required to work effectively with other people in a manufacturing environment. We emphasize development of professional attitudes, values, and ethics. As you progress through the program, you'll gain critical thinking, priority setting, and decision-making skills needed in today's quality-oriented business environment.

Graduates of this AAS degree program may continue to a Baccalaureate program.

**Program Learning Outcomes:**

- Demonstrate an ability to work independently and collaboratively.
- Analyze and present data in an acceptable and standardized manner.
- Solve common weldability problems.
- Demonstrate a basic framework of technical vocabulary and graphics interpretation.
- Demonstrate observational, integrative, and synthetic skills.
- Demonstrate the proper use and care of common welding equipment.
- Apply basic defect prevention philosophy and techniques to achieving weld integrity.
- Describe the key process elements and technology commonly found in industrial welding and cutting processes.
- Demonstrate the skills and knowledge needed for the Certified Welding Inspector and Certified Welding Educator certifications. AWS D1.1, ASME Section IX, & API 1104

**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)