MUSC-2455L	Music Theory Lab III	1
	Total AA Credits	**60 credits**

Recommended Plan of Study

1st Semester		**Credits**
ENGL-1010	English Composition I	3
MUSC-1120	Applied Music: Keyboard I	1
MUSC-1141	Applied Voice I for Music Major	2
MUSC-1141L	Applied Music: Diction Lab for Singers I	1
MUSC-1200	Collegiate Chorale	1
PRDV-1010	Achieving College Success	3
	Oral Communication GE elective	3
	Total Credits	**14**

2nd Semester		**Credits**
ENGL-1020	English Composition II	3
MUSC-1010	Music Appreciation	3
MUSC-1151	Applied Voice II for the Music Major	2
MUSC-1151L	Applied Music: Diction Lab for Singers II	1
MUSC-1200	Collegiate Chorale	1
MUSC-1455	Music Theory	3
MUSC-1455L	Music Theory Lab I	1
	Social Sciences GE elective	3
	Total Credits	**17**

3rd Semester		**Credits**
MUSC-1130	Applied Music: Keyboard II	1
MUSC-1200	Collegiate Chorale	1
MUSC-1475	Music Theory II	3
MUSC-1475L	Music Theory II Lab	1
MUSC-2141	Applied Voice III for the Music Major	2
	Humanities GE Elective	3
	Lab Science GE elective	4
	Total Credits	**16**

4th Semester		**Credits**
MATH-1150	College Algebra (or higher)	4
MUSC-1200	Collegiate Chorale	1
MUSC-2151	Applied Voice IV for the Music Major	2
MUSC-2455	Music Theory III	3
MUSC-2455L	Music Theory III Lab	1
	Social Sciences GE elective	3
	Total Credits	**15**
	TOTAL AA Credits	**62**

Welding Technology

Associate of Applied Science
Diploma
Certificate
Scottsbluff

Welding programs at WNCC offer students the necessary training and technical information required for employment in the welding industry. The curriculum provides training in a variety of welding skill areas.

Technical Standards

- Perform successfully safety inspections of and make minor external repairs to equipment and accessories.
- **Shielded Metal Arc Welding**
  1. Demonstrate competency in setting up and operating equipment for Shielded Metal Arc Welding on plain carbon steel.
  2. Demonstrate proficiency in fillet and groove welds, all positions, on plain carbon steel.
  3. Successfully perform 2G – 3G limited thickness qualification tests on plain carbon steel plate.
- **Gas Metal Arc Welding**
  1. Demonstrate competency in setting up and operating equipment for Gas Metal Arc Welding on plain carbon steel.

  Short Circuit Transfer
  2. Demonstrate proficiency in fillet and groove welds, all positions, on plain carbon steel.

  Spray Transfer
  3. Successfully perform 1F – 2F and 1G welds on plain carbon steel plate.
- **Flux Cored Arc Welding**
  1. Demonstrate competency in setting up and operating equipment for Shielded Metal Arc Welding carbon steel.
  2. Demonstrate proficiency in fillet and groove welds, all positions, on plain carbon steel.
  3. Successfully perform 2G – 3G limited thickness qualification tests on plain carbon steel plate.
- **Gas Tungsten Arc Welding**
  1. Demonstrate competency in setting up and operating equipment for Gas Metal Arc Welding operations on plain carbon steel and aluminum.
  2. Demonstrate proficiency in fillet and groove welds, all positions, on plain carbon steel.
  3. Successfully perform 1F – 2F and 1G welds on aluminum.

- **Oxyfuel Gas Welding and Thermal Cutting Operations**

  Manual Oxyfuel Gas Cutting (OFC)

  1. Demonstrate competency in setting up and operating equipment for manual oxyfuel gas cutting operations on plain carbon steel.
  2. Demonstrate proficiency in straight, shape, and bevel cutting operations on plain carbon steel.

  Machine Oxyfuel Gas Cutting Operations (OFC)-[Track Burner]

  1. Demonstrate competency in setting up and operating equipment for machine oxyfuel gas cutting (track burner) operations on plain carbon steel.
  2. Perform straight and bevel cutting operations on plain carbon steel.
- **Air Carbon Arc Cutting (CAC-A)**
  1. Demonstrate competency in setting up and operating equipment for manual air carbon arc gouging and cutting operations on plain carbon steel.
  2. Perform metal removal operations on plain carbon steel.

  Plasma Arc Cutting (PAC)
  1. Demonstrate competency in setting up and operating equipment for manual plasma arc cutting operations on plain carbon steel.
  2. Perform shape cutting operations on plain carbon steel.
- **Drawing and Welding Symbol Interpretation**
  1. Interpret basic elements of a drawing or sketch.
  2. Interpret welding symbol information.

Objectives

- To develop in each student, the attitude of safe work practices and a cooperative attitude toward skill development and fellow workers.
- To develop the critical thinking skills and academic knowledge concerning welding processes.
- To provide the opportunity to learn and develop welding skills under a structured environment.
- To develop an interest in life-long learning in the welding industry.
- To develop the skill of working efficiently and the attitude or resourcefulness.

Associate of Applied Science

AAS.4805 (60 credits)

Requirements

General Education Requirements

For the AAS — 15-17 credits

Class		Credit
PRDV-1010	Achieving College Success	3
	Written Communication GE Elective	3
	Oral Communication GE Elective	3
	Math GE Elective	3-4
	Science or Social Science GE Elective	3-4
	Total Gen Ed Requirements	**15-17**

Welding Requirements — 34 credits

Class		Credits
AMDT-1000	OSHA-10*	1
WELD-1015	Introduction to Welding*	3
WELD-1050	Gas Tungsten Arc Welding – I**	3
WELD-1120	Gas Metal Arc Welding*	3
WELD-1125	Flux Cored Arc Welding*	3
WELD-1200	Shielded Metal Arc Welding – I*	3
WELD-1250	Shielded Metal Arc Welding – II*	3
WELD-1300	Blue Print Reading for Welders**	3
WELD-2025	Structural Welding**	3
WELD-2110	Downhill Pipe Welding – SMAW**	3
WELD-2115	Uphill Pipe Welding – SMAW**	3
WELD-2150	Gas Tungsten Arc Welding – II**	3
	Total Welding Credits	**34**

Elective Credits — 8-14 credits

Class		Credit
WELD-1170	Arc Welding & Shop Fabrication	2-3
WELD-2500	Welding Technology Internship	1-3
	Applied Technology Electives***	5-8
	Total Elective Credits	**8-14**
	TOTAL AAS Credits	**60 credits**

Diploma

D2.4805 (43 Credits)

Students must complete nine (9) credits of general education requirements and 34 credits of credit in WELD courses for a total of 43 credits. Completion of the 34 WELD credits can be accomplished by completing both the Basic Welding Certificate and the Advanced Welding Certificate.

Gainful Employment (GE) – For more information about WNCC's graduation rates, the median debt of students who have completed this program, and other important information, please visit **wncc.edu/equity**.

Recommended Plan of Study

General Education Requirements 9 credits

ENGL-0500	Workplace Writing (or higher)****	3
MATH-1020	Technical Mathematics (or higher)****	3
	One course selected from	3
	Communication, Science, Social Science, or Personal Development	
	Total Gen Ed Requirements	**9**

Basic & Advanced Welding Classes 34 credits

Class		Credits
AMDT-1000	OSHA-10*	1
WELD-1015	Introduction to Welding*	3
WELD-1050	Gas Tungsten Arc Welding – I**	3
WELD-1120	Gas Metal Arc Welding*	3
WELD-1125	Flux Cored Arc Welding*	3
WELD-1200	Shielded Metal Arc Welding – I*	3
WELD-1250	Shielded Metal Arc Welding – II*	3
WELD-1300	Blue Print Reading for Welders**	3
WELD-2025	Structural Welding**	3
WELD-2110	Downhill Pipe Welding – SMAW**	3
WELD-2115	Uphill Pipe Welding – SMAW**	3
WELD-2150	Gas Tungsten Arc Welding – II**	3
	Total Welding Credits	**34**

Total Diploma Credits 43 credits

*Basic Welding Certificate requirements

**Advanced Welding Certificate requirements

***Any Applied Technology course; Manufacturing strongly recommended)

****English and math course selections are dependent on writing and math proficiency based on assessment.

Certificate

C2.4805A (16 credits) – Basic Welding Certificate

C2.4805B (18 credits) – Advanced Welding Certificate

WNCC offers two certificate programs in welding – a basic and an advanced program. These certificate programs are designed as standalone certificates, or the programs can be "stacked" together to fulfill 34 of the 43 credits required for a diploma in welding. They also can be applied toward the 60 credits required for an associate of applied science degree in welding.

Gainful Employment (GE) – For more information about WNCC's graduation rates, the median debt of students who have completed this program, and other important information, please visit **wncc.edu/equity**.

Recommended Plans of Study

Basic Welding Certificate 16 credits

Class		Credits
AMDT-1000	OSHA-10	1
WELD-1015	Introduction to Welding	3
WELD-1120	Gas Metal Arc Welding	3
WELD-1125	Flux Cored Arc Welding	3
WELD-1200	Shielded Metal Arc Welding – I	3
WELD-1250	Shielded Metal Arc Welding – II	3
	Total Credits	**16**

Advanced Welding Certificate 18 credits

Class		Credits
WELD-1050	Gas Tungsten Arc Welding – I	3
WELD-1300	Blue Print Reading for Welders	3
WELD-2025	Structural Welding	3
WELD-2110	Downhill Pipe Welding – SMAW	3
WELD-2115	Uphill Pipe Welding – SMAW	3
WELD-2150	Gas Tungsten Arc Welding – II	3
	Total Credits	**18**