WELDING TECHNOLOGY AAS

Welding Technology is a participating organization of the American Welding Society's SENSE (Schools Excelling through National Skill standards Education) Program. This program is designed to provide training in a sequential manner for various welding processes, starting with simple tasks and progressing through more complex assignments. Those processes include: shielded metal arc welding, gas metal arc welding, flux cored arc welding, gas tungsten arc welding, oxy-acetylene cutting, brazing and welding, and the use of plasma arc cutting equipment. Students receive practical and theoretical training in the weldability of metals and alloys, blueprint reading, mathematics, and metallurgy.

Students are trained to international standards using state-of-the-art equipment. All skills and lab assignments are performance-based using standards assigned by the prevailing industrial welding codes. Safety, care, use, and adjustment of the welding lab equipment is stressed in each of the classes. Included in each 30 hour week is study in welding theory and related practical science, and applying this knowledge in the laboratory.

All graduates are given the opportunity to take the unlimited thickness, all position, welder certification test at no cost to them.

Admission requirements

All welding students must be core math ready and needs to complete a program application. Priority application deadlines are as follows:

Fall registration -- February 1 Spring registration -- October 1

Admission Checklist

- 1. Complete general LC State admission requirements
- 2. Submit Welding application form
- 3. Schedule Assessment/Interview with program faculty

The welding program has limited space, and a waitlist is utilized if the program is full. Duration on the waitlist is one semester. If students do not move into program classes after one semester on the waitlist, they need to reapply for the welding program.

• ALEKS score of 30 or higher in Math and Writing Placement Exam score of 2 or higher or qualify for MTHPT-137 and ENGL-101.

Upon completion of the Welding Technology program, the student will have basic skills to:

- · Understand basic power sources used in the industry
- · Identify and interpret welding symbols
- · Demonstrate welding competency by performing and passing welding certification test
- · Knowledge of basic hand and machine tools, measuring devices, and appropriate shop and tool safety
- · Basic knowledge of drafting and blue print reading as it is used in welding
- Knowledge of various welding and cutting processes
- · Understand properties and strengths of metals in fabrication and technology
- · Develop employable skills for the arc welder and combination line welder
- · Obtain a working knowledge of problems that occur as a result of heating and cooling processes
- · Interpret welding code requirements and inspect welds to critique weld quality
- · Ability to apply the correct method of distortion control in welded fabrications
- Demonstrate and perform the safety requirements needed for welding
- Recognize structural types and shapes and the metallurgical composition of different ferrous and non-ferrous metals and the outcome of heat treatments
- · Able to optimize the performance of various welding machines and how to operate welding shop equipment

General Education Requirements

Code	Title	Credits
Written Communicatio	on	
ENGL-101	WRITING AND RHETORIC I	3.00
Oral Communication		
Select one of the follo	owing:	3.00
COMM-101	FUNDAMENTALS OF ORAL COMMUNICATION	
COMM-203	SMALL GROUP COMMUNICATION	
COMM-204	PUBLIC SPEAKING	

Mathematical Wave of Knowl	na	
		4 00
Secial & Behavioral Ways of h		4.00
Solaat one of the following:	thowing	2 00
		5.00
ECON-201		
ECON-202		
GEUG-102		
HIST-TUT		
HIST-TUZ		
HIST-TTT		
HIST-TT2		
HRPI-184		
HRPI-185		
POLS-101	AMERICAN NATIONAL GOVERNMENT	
POLS-237	INTERNATIONAL POLITICS	
POLS-285	COMPARATIVE GOVERNMENT	
PSYC-101	INTRODUCTION TO GENERAL PSYCHOLOGY	
PSYC-205	LIFESPAN DEVELOPMENTAL PSYCHOLOGY	
SOC-101	INTRODUCTION TO SOCIOLOGY	
SOC-102	SOCIAL PROBLEMS	
SS-184	DIVERSITY IN ORGANIZATIONS	
SS-185	HUMAN RELATIONS IN ORGANIZATIONS	
Additional General Education	Core	
Select one of the following:	3.00	0-5.00
ANTH-360	RACE AND ETHNICITY	
ART-100	INTRODUCTION TO ABT	
BIOF-100	INTRODUCTION TO BIOINFORMATICS	
BIOF-100 BIOL-100	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY	
BIOF-100 BIOL-100 BIOL-120	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE	
BIOF-100 BIOL-100 BIOL-120 BIOL-123	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-175	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-175 ENGL-257	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS WORLD CLASSICS	
BIOF-100 BIOL-100 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-175 ENGL-257 ENGL-258	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS WORLD CLASSICS	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-175 ENGL-257 ENGL-258 ENGL-260	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS WORLD CLASSICS INTERNATIONAL LITERATURE NATIVE AMERICAN LITERATURE	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-175 ENGL-257 ENGL-258 ENGL-260 ENGL-261	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS WORLD CLASSICS INTERNATIONAL LITERATURE NATIVE AMERICAN LITERATURE NATIVE AMERICAN LITERATURE	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-175 ENGL-257 ENGL-260 ENGL-261 ENGL-261	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS WORLD CLASSICS INTERNATIONAL LITERATURE NATIVE AMERICAN LITERATURE NATIVE AMERICAN WRITTEN LITERATURE	
BIOF-100 BIOL-100 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-257 ENGL-258 ENGL-260 ENGL-261 ENGL-474 FSCI-101	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS WORLD CLASSICS INTERNATIONAL LITERATURE NATIVE AMERICAN URITTEN LITERATURE INTRODUCTION TO FORENSIC SCIENCE	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-257 ENGL-260 ENGL-261 ENGL-261 ENGL-101	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS WORLD CLASSICS INTERNATIONAL LITERATURE NATIVE AMERICAN LITERATURE NATIVE AMERICAN WRITTEN LITERATURE INTRODUCTION TO FORENSIC SCIENCE PHYSICAL GEOLOGY	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-175 BIOL-227 CHEM-100 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-175 ENGL-257 ENGL-257 ENGL-258 ENGL-260 ENGL-261 ENGL	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS WORLD CLASSICS INTERNATIONAL LITERATURE NATIVE AMERICAN LITERATURE NATIVE AMERICAN WRITTEN LITERATURE INTRODUCTION TO FORENSIC SCIENCE PHYSICAL GEOLOGY INTRODUCTION TO EARTH SYSTEMS	
BIOF-100 BIOL-100 BIOL-120 BIOL-123 BIOL-227 CHEM-100 CHEM-105 CHEM-105 CHEM-111 CITPT-108 COMM-345 CS-108 ENGL-257 ENGL-258 ENGL-260 ENGL-261 ENGL-474 FSCI-101 GEOL-101 GEOL-120 GIS-271	INTRODUCTION TO BIOINFORMATICS CONCEPTS OF BIOLOGY PLANTS AND PEOPLE BIOLOGY IN FILM HUMAN BIOLOGY HUMAN ANATOMY AND PHYSIOLOGY I CONCEPTS OF CHEMISTRY GENERAL, ORGANIC AND BIOCHEMISTRY PRINCIPLES OF CHEMISTRY I INTRODUCTION TO COMPUTER SCIENCE INTERCULTURAL COMMUNICATION INTRODUCTION TO COMPUTER SCIENCE LITERATURE AND IDEAS WORLD CLASSICS INTERNATIONAL LITERATURE NATIVE AMERICAN LITERATURE NATIVE AMERICAN UNITER LITERATURE INTRODUCTION TO FORENSIC SCIENCE PHYSICAL GEOLOGY INTRODUCTION TO EARTH SYSTEMS GEOGRAPHIC INFORMATION SYSTEMS	

Τα	otal Credits		16.00-18.00
	THEA-101	SURVEY OF THE THEATER	
	SS-185	HUMAN RELATIONS IN ORGANIZATIONS	
	SS-184	DIVERSITY IN ORGANIZATIONS	
	SPAN-202	INTERMEDIATE SPANISH II	
	SPAN-201	INTERMEDIATE SPANISH I	
	SPAN-102	ELEMENTARY SPANISH II	
	SPAN-101	ELEMENTARY SPANISH I	
	PHYS-211	PHYSICS FOR SCIENTISTS AND ENGINEERS I	
	PHYS-205	DESCRIPTIVE ASTRONOMY	
	PHYS-171	PHYS SCIENCES FOR ELEMENTARY EDUCATORS	
	or PHYS-112	GENERAL PHYSICS II	
	PHYS-111	GENERAL PHYSICS I	
	NS-174	NATURAL SCIENCE FOR ELEMENTARY EDUCATOR	
	NS-150	INTRODUCTION TO NATURAL SCIENCES	
	NS-140	INTEGRATED SCIENCE I	
	NP-102	NEZ PERCE LANGUAGE AND HISTORY	
	NP-101	NEZ PERCE LANGUAGE AND CULTURE	
	MUS-152	HISTORY OF JAZZ AND POPULAR MUSIC STYLES	
	MUS-151	HISTORY OF MUSICAL THEATER	
	MUS-150	WORLD MUSIC	
	MUS-102	MUSIC IN AMERICA	
	MUS-101	SURVEY OF MUSIC	
	KIN-220	SOCIAL-CULTURAL ASPECTS OF SPORTS	
	ID-301A	HELLS CANYON INSTITUTE	
	ID-300C	ETHICS AND IDENTITY	
	ID-240	INTEGRATED SCIENCE II	
	HUM-150	INTRODUCTION TO THE ARTS	

Total Credits

Program Requirements

Code	Title	Credits
Technical Core		
WLDTC-150	WELDING POWER SOURCES	2.00
WLDTC-151	WELDING CODES FOR CERTIFICATIONS	2.00
WLDTC-152	QUALITY CONTROL FOR WELDING INSPECTION	2.00
WLDTC-155	BASIC WELDING PROCESSES LAB (or WLDTC-155A and WLDTC-155B)	7.00
WLDTC-161	WELDING PROCESSES AND APPLICATIONS	2.00
WLDTC-162	METALLURGY	2.00
WLDTC-165	ADVANCED WELDING PROCESSES	7.00
WLDTC-250	DRAFTING AND PIPEFITTING	2.00
WLDTC-251	BLUEPRINT READING	2.00
WLDTC-252	HEAT TREATMENT	2.00
WLDTC-254	PIPE WELDING:SMAW LAB	7.00
WLDTC-261	BENCHWORK FOR WELDERS	2.00
WLDTC-262	DISTORTION CONTROL	2.00
WLDTC-264	PIPE WELDING GTAW LAB	7.00
Electives		
Select 12 credits from WLDTC		12.00
Total Credits		60.00

Sequential Plan of Study

Course	Title	Credits
First Year		
Fall		
MTHPT-137	MATH FOR TECHNOLOGY	4.00
WLDTC-150	WELDING POWER SOURCES	2.00
WLDTC-155 or WLDTC-155A and WLDTC-155B	BASIC WELDING PROCESSES LAB or SMAW PRACTICAL <i>and</i> BASIC OXYACETYLENE AND GMAW	7.00
WLDTC-261	BENCHWORK FOR WELDERS	2.00
Program Requirement	Select WLDTC Elective course	4.00
	Credits	19.00
Spring		
ENGL-101	WRITING AND RHETORIC I	3.00
WLDTC-165	ADVANCED WELDING PROCESSES	7.00
WLDTC-251	BLUEPRINT READING	2.00
WLDTC-262	DISTORTION CONTROL	2.00
Program Requirement	Select WLDTC Elective course	4.00
	Credits	18.00
Second Year		
Fall		
CORE	Oral Communication	3.00
WLDTC-161	WELDING PROCESSES AND APPLICATIONS	2.00
WLDTC-162	METALLURGY	2.00
WLDTC-250	DRAFTING AND PIPEFITTING	2.00
WLDTC-254	PIPE WELDING:SMAW LAB	7.00
Program Requirement	Select WLDTC Elective course	4.00
	Credits	20.00
Spring		
WLDTC-252	HEAT TREATMENT	2.00
WLDTC-151	WELDING CODES FOR CERTIFICATIONS	2.00
WLDTC-152	QUALITY CONTROL FOR WELDING INSPECTION	2.00
WLDTC-264	PIPE WELDING GTAW LAB	7.00
CORE	Social & Behavioral Ways of Knowing	3.00
CORE	Additional General Education Course	3.00
	Credits	19.00
	Total Credits	76.00

View on YouTube (https://www.youtube.com/watch/?v=5839IvNcK_g)

Graduates from Welding Technology programs go on to obtain careers in a variety of fields:

- Underwater Welder
- Fabricator
- Braze operator
- Aluminum Welder
- Boat Manufacturer
- Fitter Welder
- Machine Operator
- Spot Welder
- Finishing Technician
- Iron Worker
- Boilermaker