

**DEGREE MAP**

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

**Program Name:** Aerospace Thermal Fusion-Certificate

**Location(s) Offered:**

Sierra Vista Campus (Requires five semesters to complete.)

**Learning Outcomes:** *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to perform entry-level welding skills required in industries such as aviation, aerospace, motorsports, and exotic material fabrication.
2. Demonstrate the ability to interpret blueprints and welding symbols.
3. Demonstrate applied mathematics and technical writing skills.
4. Demonstrate safe work habits when operating welding equipment.
5. Complete basic welding operations using appropriate gas tungsten arc welding processes on various metals and in various situations.

**Course or program prerequisite(s) not included in the degree:**

CIS 179 Applied Technical Writing requires appropriate English placement score (or see advisor) and RDG 122 Reading Critically or exemption.  
MAT 132 Applied Mathematics requires appropriate mathematics placement score (or see advisor).

**Program Reviewed:** Feb 22, 2016

**Key:**

*IW=Intensive Writing*  
*F2F=Face-to-Face Instruction*  
*ITV=Instructional Television*  
*VC=Virtual Campus/Online*

<i>Requirements</i>	<i>Course(s) Recommended</i>	<i>Delivery Method</i>	<i>Credits</i>
<b>First Semester (Fall):</b>			
Core Curriculum	CIS 116 Computer Essentials or CIS 120 Intro to Info Systems	F2F,VC	3
Core Curriculum	MAT 132 Applied Mathematics	F2F	3
Core Curriculum	WLD 105 Oxyacetylene Welding	F2F	3
Core Curriculum	WLD 203 Blueprint Interpretation	F2F	3
<b>Second Semester (Spring):</b>			
Core Curriculum	CIS 179 Applied Technical Writing	F2F,VC	3
Core Curriculum	GTC 105 Manufacturing Materials and Processes	F2F	3
Core Curriculum	WLD 209 Gas Tungsten Arc Welding	F2F	3
<b>Third Semester (Fall):</b>			
Core Curriculum	WLD 218 Advanced GTAW - Soft Metals	F2F	3
<b>Fourth Semester (Spring):</b>			
Core Curriculum	WLD 219 Advanced GTAW - Hard Metals	F2F	3
<b>Fifth Semester (Fall)*:</b>			
Core Curriculum	WLD 220 Advanced GTAW - Exotic Metals	F2F	3

**Total credits required:** 30

**Notes:**

\*Due to prerequisites this certificate will take five semesters to complete.