

CURRICULUM STANDARD

Effective Term
Fall 1999
[1999*03]

Curriculum Program Title

Welding Technology

Code

A5042A

Concentration

Underwater

Curriculum Description

Underwater is a concentration under the curriculum title of Welding Technology. This curriculum equips students with skills necessary for employment as welders, metallurgy and testing technicians, and industrial technicians.

Course work includes testing, metallurgy, drafting, and materials. Students incorporate latest technology in industrial applications.

Employment opportunities for underwater welders include shipyards, salvage companies, underwater utilities, boat repair companies, and as bridge inspectors.

*Curriculum Requirements**

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (3)]

- I. General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.
- II. Major Hours.** AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*
- III. Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

	AAS	Diploma	Certificate
Minimum General Education Hours	15	6	0
Minimum Major Hours	49	30	12
Other Required Hours	0-7	0-4	0-1
Total Semester Hours Credit (SHC)	64-76	36-48	12-18

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 23 NCAC 02E.0204 (3)]

- A. Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- B. Concentration** (if applicable). A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- C. Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Welding Technology/Underwater A5042A

	AAS	Diploma	Certificate																				
Minimum Major Hours Required	49 SHC	30 SHC	12 SHC																				
<p>A. CORE <i>Courses required for the diploma are designated with *</i></p> <p>Required Courses:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">*</td> <td style="width: 15%;">WLD 110</td> <td style="width: 60%;">Cutting Processes</td> <td style="width: 20%; text-align: right;">2 SHC</td> </tr> <tr> <td>*</td> <td>WLD 115</td> <td>SMAW (Stick) Plate</td> <td style="text-align: right;">5 SHC</td> </tr> <tr> <td>*</td> <td>WLD 121</td> <td>GMAW (MIG) FCAW/Plate</td> <td style="text-align: right;">4 SHC</td> </tr> <tr> <td>*</td> <td>WLD 131</td> <td>GTAW (TIG) Plate</td> <td style="text-align: right;">4 SHC</td> </tr> <tr> <td>*</td> <td>WLD 141</td> <td>Symbols & Specifications</td> <td style="text-align: right;">3 SHC</td> </tr> </table> <p>Required Subject Areas: None</p>	*	WLD 110	Cutting Processes	2 SHC	*	WLD 115	SMAW (Stick) Plate	5 SHC	*	WLD 121	GMAW (MIG) FCAW/Plate	4 SHC	*	WLD 131	GTAW (TIG) Plate	4 SHC	*	WLD 141	Symbols & Specifications	3 SHC	18 SHC		
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<p>B. CONCENTRATION <i>Courses unique to the concentration are designated with **</i></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">**</td> <td style="width: 15%;">WLD 281</td> <td style="width: 60%;">Underwater Work I</td> <td style="width: 20%; text-align: right;">4 SHC</td> </tr> <tr> <td>**</td> <td>WLD 282</td> <td>Underwater Work II</td> <td style="text-align: right;">4 SHC</td> </tr> <tr> <td>**</td> <td>WLD 285</td> <td>Marine Welding</td> <td style="text-align: right;">4 SHC</td> </tr> </table>	**	WLD 281	Underwater Work I	4 SHC	**	WLD 282	Underwater Work II	4 SHC	**	WLD 285	Marine Welding	4 SHC	12 SHC										
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**	WLD 285	Marine Welding	4 SHC																				
<p>C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i></p> <p>BPR, BUS, CIS, COE, CSC, DFT, ELC, ISC, MAC, MAT, MEC, OMT, PHY, WLD, and WOL</p> <p><i>Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.</i></p>																							