

Curriculum Standard for Construction: Boat Building

Career Cluster: Architecture and Construction**

Cluster Description: Programs that prepare individuals to apply technical knowledge and skills related to the fields of architecture, construction, and associated professions. Includes instruction that can be applied to a variety of careers in the design-construction industry, including employment with architectural and engineering firms, residential and commercial builders/contractors, and other construction related occupations.

Pathway: Construction

Effective Term: Fall 2013 (2013*03)

Program Majors Under Pathway

Program Major / Classification of Instruction Programs (CIP) Code	Credential Level(s) Offered	Program Major Code
Boat Building CIP Code 46.0201	Diploma/Certificate	D35120

Pathway Description:

The Boat Building curriculum prepares individuals for employment in the boat building and boat repair industry. Today's boat builders are highly skilled craftspeople who can create complex shapes out of wood.

Course work includes reading boat plans, lofting, setting up the building jig, fashioning the structural timbers, and different planking techniques. Interior joinery, exterior joinery, and yacht rigging is also covered.

Graduates may find work with yacht manufacturers, high end furniture shops, architectural millwork shops, and companies installing built in furniture in homes. Other opportunities can be found in boat maintenance and repair yards.

Program Description: Choose one of the following 4th paragraphs to use in conjunction with the first three paragraphs of the pathway description above for documentation used to identify each Program Major:

N/A

*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.

I. General Education Academic Core

[Curriculum Requirements for associate degree, diploma, and certificate programs in accordance with 1D SBCCC 400.10]: 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.

Construction: Boat Building

Recommended General Education Academic Core	AAS	Diploma	Certificate																																																																																																																																
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<p><i>Courses listed below are recommended general education courses for this curriculum standard. Colleges may choose to include additional or alternative general education courses to meet local curriculum needs.</i></p> <p>Communication:</p> <table border="0"> <tr><td>COM</td><td>101</td><td>Workplace Communication</td><td>3 SHC</td></tr> <tr><td>COM</td><td>110</td><td>Introduction to Communication</td><td>3 SHC</td></tr> <tr><td>COM</td><td>120</td><td>Intro Interpersonal Com</td><td>3 SHC</td></tr> <tr><td>COM</td><td>231</td><td>Public Speaking</td><td>3 SHC</td></tr> <tr><td>ENG</td><td>101</td><td>Applied Communications I</td><td>3 SHC</td></tr> <tr><td>ENG</td><td>102</td><td>Applied Communications II</td><td>3 SHC</td></tr> <tr><td>ENG</td><td>110</td><td>Freshman Composition</td><td>3 SHC</td></tr> <tr><td>ENG</td><td>111</td><td>Expository Writing</td><td>3 SHC</td></tr> <tr><td>ENG</td><td>114</td><td>Prof Research & Reporting</td><td>3 SHC</td></tr> <tr><td>ENG</td><td>116</td><td>Technical Report Writing</td><td>3 SHC</td></tr> </table> <p>Humanities/Fine Arts:</p> <table border="0"> <tr><td>HUM</td><td>101</td><td>Values in the Workplace</td><td>2 SHC</td></tr> <tr><td>HUM</td><td>110</td><td>Technology and Society</td><td>3 SHC</td></tr> <tr><td>HUM</td><td>115</td><td>Critical Thinking</td><td>3 SHC</td></tr> <tr><td>HUM</td><td>230</td><td>Leadership Development</td><td>3 SHC</td></tr> <tr><td>PHI</td><td>230</td><td>Introduction to Logic</td><td>3 SHC</td></tr> <tr><td>PHI</td><td>240</td><td>Introduction to Ethics</td><td>3 SHC</td></tr> </table> <p>Social /Behavioral Sciences:</p> <table border="0"> <tr><td>ECO</td><td>151</td><td>Survey of Economics</td><td>3 SHC</td></tr> <tr><td>ECO</td><td>251</td><td>Prin of Microeconomics</td><td>3 SHC</td></tr> <tr><td>SOC</td><td>105</td><td>Social Relationships</td><td>3 SHC</td></tr> <tr><td>SOC</td><td>215</td><td>Group Processes</td><td>3 SHC</td></tr> <tr><td>PSY</td><td>101</td><td>Applied Psychology</td><td>3 SHC</td></tr> <tr><td>PSY</td><td>102</td><td>Human Relations</td><td>2 SHC</td></tr> <tr><td>PSY</td><td>118</td><td>Interpersonal Psychology</td><td>3 SHC</td></tr> <tr><td>PSY</td><td>135</td><td>Group Processes</td><td>3 SHC</td></tr> <tr><td>PSY</td><td>150</td><td>General Psychology</td><td>3 SHC</td></tr> </table> <p>Natural Sciences/Mathematics:</p> <table border="0"> <tr><td>MAT</td><td>110</td><td>Math Measurement & Literacy</td><td>3 SHC</td></tr> <tr><td>MAT</td><td>121</td><td>Algebra/Trigonometry I</td><td>3 SHC</td></tr> <tr><td>MAT</td><td>143</td><td>Quantitative Literacy</td><td>3 SHC</td></tr> <tr><td>MAT</td><td>152</td><td>Statistical Methods I</td><td>4 SHC</td></tr> <tr><td>MAT</td><td>171</td><td>Precalculus Algebra</td><td>4 SHC</td></tr> <tr><td>PHY</td><td>110</td><td>Conceptual Physics</td><td>3 SHC</td></tr> <tr><td>PHY</td><td>121</td><td>Applied Physics I</td><td>4 SHC</td></tr> </table>	COM	101	Workplace Communication	3 SHC	COM	110	Introduction to Communication	3 SHC	COM	120	Intro Interpersonal Com	3 SHC	COM	231	Public Speaking	3 SHC	ENG	101	Applied Communications I	3 SHC	ENG	102	Applied Communications II	3 SHC	ENG	110	Freshman Composition	3 SHC	ENG	111	Expository Writing	3 SHC	ENG	114	Prof Research & Reporting	3 SHC	ENG	116	Technical Report Writing	3 SHC	HUM	101	Values in the Workplace	2 SHC	HUM	110	Technology and Society	3 SHC	HUM	115	Critical Thinking	3 SHC	HUM	230	Leadership Development	3 SHC	PHI	230	Introduction to Logic	3 SHC	PHI	240	Introduction to Ethics	3 SHC	ECO	151	Survey of Economics	3 SHC	ECO	251	Prin of Microeconomics	3 SHC	SOC	105	Social Relationships	3 SHC	SOC	215	Group Processes	3 SHC	PSY	101	Applied Psychology	3 SHC	PSY	102	Human Relations	2 SHC	PSY	118	Interpersonal Psychology	3 SHC	PSY	135	Group Processes	3 SHC	PSY	150	General Psychology	3 SHC	MAT	110	Math Measurement & Literacy	3 SHC	MAT	121	Algebra/Trigonometry I	3 SHC	MAT	143	Quantitative Literacy	3 SHC	MAT	152	Statistical Methods I	4 SHC	MAT	171	Precalculus Algebra	4 SHC	PHY	110	Conceptual Physics	3 SHC	PHY	121	Applied Physics I	4 SHC	<p>NA</p> <p>NA</p> <p>NA</p> <p>NA</p>	<p>3-6 SHC</p> <p>0-3 SHC</p> <p>0-3 SHC</p> <p>0-3 SHC</p>	<p>Optional</p> <p>Optional</p> <p>Optional</p> <p>Optional</p>
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II. Major Hours. AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work-based learning 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. Below is a description of each section under Major Hours.

- A. Technical Core.** The technical core is comprised of specific courses which are required for all Program Majors under this Curriculum Standard. 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 curriculum core courses or core subject area of the AAS program.
- B. Program Major(s).** The Program Major must include a minimum of 12 semester hours credit from required subjects and/or courses. The Program Major is in addition to the technical 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 each prefix listed, with the exception of prefixes listed in the core.

Construction: Boat Building	AAS	Diploma	Certificate
Minimum Major Hours Required:	49 SHC	30 SHC	12 SHC
Technical Core/Program Major:		35 SHC	
BTB 101 Boat Building I 10 SHC			
BTB 102 Boat Building II 9 SHC			
BTB 103 Yacht Joiner Practices I 4 SHC			
BTB 104 Yacht Joiner Practices II 3 SHC			
BTB 105 Yacht Repair/Renovation 5 SHC			
BTB 109 Yacht Rigging 2 SHC			
DFT 100 Marine Drafting 2 SHC			

C. Other Major Hours

To be selected from the following prefixes:

BTB, CIS, DDF, DFT, FBG, ISC and WBL

Up to two semester hour credits may be selected from ACA.

Up to three semester hour credits may be selected from the following prefixes: ARA, ASL, CHI, FRE, GER, ITA, JPN, LAT, POR, RUS and SPA.

III. Other Required Hours

A college may include courses to meet graduation or local employer requirements in a certificate (0-1 SHC), diploma (0-4 SHC), or an associate in applied science (0-7 SHC) 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.

IV. Employability Competencies

Fundamental competencies that address soft skills vital to employability, personal, and professional success are listed below. Colleges are encouraged to integrate these competencies into the curriculum by embedding appropriate student learning outcomes into one or more courses or through alternative methods.

- A. Interpersonal Skills and Teamwork** – The ability to work effectively with others, especially to analyze situations, establish priorities, and apply resources for solving problems or accomplishing tasks.
- B. Communication** – The ability to effectively exchange ideas and information with others through oral, written, or visual means.
- C. Integrity and Professionalism** – Workplace behaviors that relate to ethical standards, honesty, fairness, respect, responsibility, self-control, criticism and demeanor.
- D. Problem-solving** – The ability to identify problems and potential causes while developing and implementing practical action plans for solutions.
- E. Initiative and Dependability** – Workplace behaviors that relate to seeking out new responsibilities, establishing and meeting goals, completing tasks, following directions, complying with rules, and consistent reliability.
- F. Information processing** – The ability to acquire, evaluate, organize, manage, and interpret information.
- G. Adaptability and Lifelong Learning** – The ability to learn and apply new knowledge and skills and adapt to changing technologies, methods, processes, work environments, organizational structures and management practices.
- H. Entrepreneurship** – The knowledge the skills necessary to create opportunities and develop as an employee or self-employed business owner.

An **Employability Skills Resource Toolkit has been developed by NC-NET for the competencies listed above.*

Additional information is located at: <http://www.nc-net.info/employability.php>

***The **North Carolina Career Clusters Guide** was developed by the North Carolina Department of Public Instruction and the North Carolina Community College system to link the academic and Career and Technical Education programs at the secondary and postsecondary levels to increase student achievement. Additional information about Career Clusters is located at: http://www.nc-net.info/NC_career_clusters_guide.php or <http://www.careertech.org>.*

Summary of Required Semester Hour Credits (SHC) for each credential:

	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