

# CURRICULUM STANDARD

Effective Term  
Spring 2010  
[2010\*01]

Curriculum Program Title

**Boat Manufacture and Service (Diploma)**

Code

**D60330**

Concentration

**(not applicable)**

## *Curriculum Description*

The Boat Manufacture and Service Technology program prepares students for employment in the manufacture and service of boats. Students learn the basics of boat design and the implementation of those designs in various components and/or complete boats or yachts.

Course work includes reading and interpreting marine blueprints, manuals, and other documents common to the industry; lofting; constructing forms and mold-making; application of concepts and techniques in composite, and fiberglass; marine woodworking; interior finishing; and marine mechanical, electrical, and plumbing systems.

Graduates may find employment with boat/yacht manufacturers, service yards, dealerships doing commissioning work, and companies doing custom boat building.

## *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.

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

*\*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.

## Boat Manufacture and Service (Diploma) D60330

	AAS	Diploma	Certificate
<b>Minimum Major Hours Required</b>	<b>49 SHC</b>	<b>30 SHC</b>	<b>12 SHC</b>
<b>A. CORE</b>		<b>25-28 SHC</b>	
<b>Required Courses. Select a minimum of 12 hours:</b>			
BMS 110 Intro to Marine Woodwork	3 SHC		
BMS 111 Marine Joinery	3 SHC		
BMS 112 Marine Blueprints/Lofting	4 SHC		
BMS 113 Hull & Deck Construction	5 SHC		
BTB 110 Fiberglass Boat Bldg I	5 SHC		
BTB 111 Fiberglass Boat Bldg II	5 SHC		
BTB 112 Fiberglass Boat Repairs	3 SHC		
<b>Required Subject Area. Select a minimum of one subject area:</b>			
<b>Composite Boat Manufacturing. Select a minimum of 13 SHC:</b>			
BMS 114 Intro to Composites	3 SHC		
BMS 115 Tooling/Mold Construction	5 SHC		
BMS 116 Composite Production	5 SHC		
BMS 117 Marine Spray Finishing	2 SHC		
<b>Marine Services.</b>			
BTB 106 Engine Install/Systems	5 SHC		
BTB 107 Boat Electrical Systems	5 SHC		
BTB 108 Boat Plumbing Systems	6 SHC		

**Boat Manufacture and Service (Diploma) D60330 (Continued)**

<b>B. CONCENTRATION</b> <i>(Not applicable)</i>			
<b>C. OTHER MAJOR HOURS</b> <i>To be selected from the following prefixes</i>  ATR, BMS, BTB, BUS, CIS, COE, DDF, ELN, FBG, HET, ISC, and MPS <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>			