

BOAT BUILDING

*Effective Term – Summer 1997 [1997*02]*

BTB 101	Boat Building I	5	15	10
Prerequisites:	None			
Corequisites:	DFT 100			

This course introduces the modern wood and composite boat shop. Topics include maintaining, sharpening, and safely using hand and power tools; lofting; and properly utilizing materials common in the boat-building industry. Upon completion, students should be able to loft a simple flat or V-bottom boat and build it using sheet plywood construction methods. *This course is approved only at the certificate and diploma level.*

*Effective Term – Summer 1997 [1997*02]*

BTB 102	Boat Building II	4	15	9
Prerequisites:	BTB 101			
Corequisites:	None			

This course introduces more advanced hull development. Topics include advanced lofting, building jigs and birdcage building forms, wood and composite lamination techniques, marine finishing materials and methods, and quality control procedures. Upon completion, students should be able to build, fit out, and finish a small boat using modern fabrics, core materials, and methods of construction. *This course is approved only at the certificate and diploma level.*

*Effective Term – Summer 1997 [1997*02]*

BTB 103	Yacht Joiner Practices I	2	4	4
Prerequisites:	BTB 101			
Corequisites:	None			

This course introduces the fundamental skills and attention to detail necessary to fine yacht joinery. Emphasis is placed on fitting, mortise/tenon, and dowel joints; fitting dadoes in grooves; and building a project to close tolerances from a blueprint. Upon completion, students should be able to build a cabinet carcass with face frame, round corner posts, laminate surfaces, and a dove-tailed drawer. *This course is approved only at the certificate and diploma level.*

*Effective Term – Summer 1997 [1997*02]*

BTB 104	Yacht Joiner Practices II	1	4	3
Prerequisites:	BTB 103			
Corequisites:	BTB 102			

This course is an extension of BTB 103 and emphasizes finishing cabinets and rough-in of yacht interiors. Topics include manufacturing and fitting moldings, door construction methods, bright work finishing, and bulkhead and cabin sole fitting and installation. Upon completion, students should be able to build raised panel doors and moldings, apply modern finishes, and rough in bulkheads, soles, and yacht furniture. *This course is approved only at the certificate and diploma level.*

*Effective Term – Summer 1997 [1997*02]*

BTB 105	Yacht Repair/Renovation	3	4	5
Prerequisites:	BTB 102			
Corequisites:	FBG 100			

This course introduces repair/renovation principles and methods for wood and fiberglass boats. Emphasis is placed on surveying boats for needed repairs, planning repairs, and estimating costs in tools, materials, and techniques used in repair and renovation. Upon completion, students should be able to plan and execute repairs in wood and fiberglass boats (structural and cosmetic) and execute marine refinishing techniques. *This course is approved only at the certificate and diploma level.*

*Effective Term – Fall 2007 [2007*03] – SBCC 07/20/07*

BTB 106	Engine Install/Systems	2	9	5
Prerequisites:	None			
Corequisites:	None			

This course familiarizes students with marine engines and related systems, installation, troubleshooting and minor repairs. Topics covered are drivetrains and cooling, fuel, exhaust, and electrical systems for a typical inboard engine. Upon completion, students should be able to install, troubleshoot, and perform minor repairs on marine engines and related systems. *This course is approved only at the certificate and diploma level.*

*Effective Term – Fall 2007 [2007*03] – SBCC 07/20/07*

BTB 107	Boat Electrical Systems	2	9	5
Prerequisites:	None			
Corequisites:	None			

This course teaches students the skills necessary to wire 12-volt direct current and 120-volt alternating current electrical systems found on modern boats. Topics covered are electrical system and wiring sizing, batteries, wire harnesses, distribution panels, electronic component installation, and electrical system troubleshooting. Upon completion, students should be able to install a complete electrical system on a mock-up yacht. *This course is approved only at the certificate and diploma level.*

*Effective Term – Fall 2007 [2007*03] – SBCC 07/20/07*

BTB 108	Boat Plumbing Systems	2	12	6
Prerequisites:	None			
Corequisites:	None			

This course is an introduction to the plumbing systems used on modern yachts. Topics will include pressurized hot water systems, water closets, sanitation systems, thru hulls, and sea cocks. Upon completion, students should be able to install heads, showers, and drains found on yachts. *This course is approved only at the certificate and diploma level.*

*Effective Term – Fall 2007 [2007*03] – SBCC 07/20/07*

BTB 109	Yacht Rigging	1	2	2
Prerequisites:	None			
Corequisites:	None			

This course provides an introduction of Marlinspike Seamanship, rigging and tuning masts, and commissioning yachts. Topics covered are knot tying, whipping lines, standing and running rigging on spars, maintaining winches, anchoring systems and care and rigging of sails. Upon completion, students should be able to efficiently complete yacht rigging competencies to industry standards. *This course is approved only at the certificate and diploma level.*

*Effective Term – Fall 2007 [2007*03] – SBCC 07/20/07*

BTB 110 Fiberglass Boat Bldg I 2 9 5
 Prerequisites: None
 Corequisites: None

This course introduces fiberglass boat building using polyester and vinylester resins in conjunction with single skin and composite covered construction. Topics covered are the types and uses of resins, fabrics, and cores, and chopper and gel coat guns. Upon completion, students should be able to build a composite core boat and a single skin boat.

*Effective Term – Fall 2007 [2007*03] – SBCC 07/20/07*

BTB 111 Fiberglass Boat Bldg II 2 9 5
 Prerequisites: BTB 110
 Corequisites: None

This course covers the skills necessary to build fiberglass molds for hulls and decks. Topics include the proper use of tooling gel coats, proper lay-ups, heat problems during lay-ups, reinforcing techniques and resin infusion. Upon completion, students should be able to build a female mold, a “quickie” female deck mold and various “quickie” male molds for custom parts.

*Effective Term – Fall 2007 [2007*03] – SBCC 07/20/07*

BTB 112 Fiberglass Boat Repairs 2 2 3
 Prerequisites: None
 Corequisites: None

This course covers many aspects of fiberglass hull and deck repair. Topics include performing repairs on single skin hulls, composite hulls, decks and gel coats. Upon completion, students should be able to demonstrate skills necessary to repair damaged laminates to boat industry standards.

*Effective Term – Fall 2007 [2007*03] – SBCC 07/20/07*

BTB 113 Rigging Powerboats 2 2 3
 Prerequisites: BTB 106, BTB 107, BTB 108, BTB 109
 Corequisites: None

This course prepares the student to work in a marine dealership or boatyard commissioning and completing minor boat repairs. Topics include bottom preparation, buffing and waxing hulls, minor gel coat repairs, outboard motor systems installation, and rigging hardware found on powerboats. Upon completion, students should be able to rig boats for dealerships or commissioned yards to boat industry standards.

See the SEL and SEM prefixes for generic Selected Topics and Seminar course descriptions.