

MNT — Marine & Nautical Tech

MNT 101 Outboard Marine Engines I 1 - 6 - 3

This course covers the history of the internal combustion engine and how it works, how an outboard engine works, and the designs of two-stroke and four-stroke engines.

MNT 102 Lower Units 1 - 6 - 3

Corequisites: MNT 108

This course covers the components of a drive system, including how power is transmitted from the motor to the propeller and the service requirements of the lower unit.

MNT 103 Rigging 2 - 3 - 3

Corequisites: MNT 110, MNT 105, MNT 107

This course covers the concepts involved in rigging a boat, including how to properly mount an outboard engine and a basic understanding of data networks.

MNT 104 Marine Service Operations 2 - 6 - 4

This course covers understanding and performing service items and intervals on outboard engines, performing service, and troubleshooting and repair.

MNT 105 Marine Fuel & Lub Systems 2 - 3 - 3

Prerequisites: (MNT 104

Corequisites: MNT 110, MNT 107, MNT 103

This course covers the functions and requirements of the fuel system, including service requirements and the qualities and characteristics of various lubricants.

MNT 106 Marine System Elec Basics 1 - 3 - 2

This course covers electricity and circuit types, including reading wiring diagrams and performing electrical tests.

MNT 107 Marine Electrical Systems 1 - 3 - 2

Prerequisites: (MNT 106

Corequisites: MNT 110, MNT 105, MNT 103

This course identifies different types of electrical systems and includes troubleshooting electrical systems and circuit types.

MNT 108 Marine Sys Electrical Diagnost 1 - 6 - 3

This course covers the components of the outboard ignition system, including the different types of ignition systems and service requirements.

MNT 109 Propellers 2 - 0 - 2

This course covers propellers and their applications, including how to choose the proper propeller and how propulsion works.

MNT 110 Outboard Marine Engines II 1 - 9 - 4

Prerequisites: (MNT 101

Corequisites: MNT 105, MNT 107, MNT 103

This course covers the functions of mounting bracket components; the different types of trim and tilt units and repair; and corrosion, including corrosion prevention in the marine environment.

MNT 120 Intro to Outboard Marine System 1 - 3 - 2

This course covers the basics of marine motor types and their applications, including measurements, materials, tools, and safety.

MNT 152 Lamination I 1 - 6 - 3

This course covers the foundational areas of chemicals, gel coat, fiberglass applications, techniques, and types of laminations in boat building.

MNT 153 Molds and Materials 2 - 3 - 3

This course covers the steps of mold preparation, mold use, demolding, and cutting and grinding.

MNT 154 Structural Integrity 3 - 3 - 4

This course covers the design and functionality of molds and materials as it relates to strength and durability in boat manufacturing. Foam, sealants, adhesives, stringers, and capping competencies are emphasized.

MNT 161 Boat Assembly 1 - 6 - 3

Installing stringer system, Deck to Hull, Console to deck, T-Top, Rub rail and Underdeck compartments.

MNT 162 Lamination II 2 - 3 - 3

This course covers more intricate details of lamination from chemical reactions, environmental variables, and troubleshooting as well as strengthening gel coat and fiberglass application methods and skills.

MNT 163 Boat Rigging and Engine Instal 1 - 6 - 3

This course covers installation, troubleshooting and minor repairs of marine electrical system and motor installation to transom.

MNT 164 Boat Plumbing and Electrical 1 - 6 - 3

This course covers electrical and plumbing systems found on modern boats. Topics covered include 12-volt direct current, wiring sizing, batteries, wire harnesses, distribution panels, electronic component installation.

MNT 165 Quality Control & Finishing 2 - 3 - 3

This course covers inspection and quality standards, systems, and repairs after the manufacturing processes.

MNT 166 Boat Building Capston 1 - 6 - 3

This course covers relevant competencies and skills needed to effectively and efficiently manufacture a sea worthy boat.

MNT 200 SCWE in Boat Building 0 - 2 4 - 6

This course includes an integration of skills needed for composite boat building at an approved industry related work site.