Marine Technology
Associate in Applied Science (AAS) Degree

Description: This program is designed for students interested in careers working on Great Lakes, ocean-based research vessels, or in industries related to the blue economy with particular emphasis on ROV (Remote Operated Vehicle) operations and applied robotics. This program features an on-water component, coursework related to ocean issues and underwater archeology, skilled trades required to design and build an ROV, and the opportunity for an internship between the first and second year of the program. Networking opportunities with public and private sector employers will be provided, along with a capstone project leading to competition in the national ROV competition. The program will emphasize project-based learning activities appealing to employers across a range of related industries.

General Education Requirements Credits: 12-16
ENG 111 or ENGLISH COMPOSITION I (3/3) or
ENG 120 APPLIED COMMUNICATION (3/3)
ENG 112 or ENGLISH COMPOSITION II (3/3) or
ENG 123 TECHNICAL COMMUNICATION (3/3)
PLS 221 or AMERICAN GOVERNMENT REQUIREMENT (3-6/3-6)
PLS 222 or
HST 221 & HST 222
PHY 111 or APPLIED PHYSICS (3/4) or
PHY 121 GENERAL COLLEGE PHYSICS (4/6)

Core Program Requirements Credits: 47-48
APP 100E ELECTRICAL STUDIES FOR TRades (3/4) A
APP 106M INDUSTRIAL SAFETY (1/1) A
APP 107E SPECIALTY WIRING (3/4) A
APP 114E PROGRAMMABLE CONTROLLERS (3/4) A
APP 123E LINEAR ELECTRONICS FOR ELECTRICIANS (3/4) A
CAD 220 MACHINE DESIGN (3.5/5) A
EGR 130 TEAM DESIGN PROJECT (2/3) A
ELE 220 PC BASE DATA ACQUISITION & CONTROL (3/4) A
GEO 151 INTRODUCTION TO GIS (1.5/2)
GEO 152 ADVANCED GIS (1.5/2)
IND 120 INDUSTRIAL NETWORKING (3/4) A
IND 229 HYDRAULIC & PNEUMATIC POWER (3/4) A
MFG 101 MACHINING PROCESSES I (4/6) A

MTH 110 or TECHNICAL MATH I (3/4) or
MTH 113 INTERMEDIATE ALGEBRA (4/4)
MTH 112 or TECHNICAL MATH II (3/4) or
MTH 122 PLANE TRIGONOMETRY (3/3)
MRT 101 INTRO TO SUBMERSIBLE ROBOTICS W/Build (3/4) A
MRT 110 INTRODUCTION TO CAREERS ON THE WATER (2/3) A
MRT 210 ROV PILOTING (2/3) A

Suggested Electives Credits:
GPA of 2.0 or higher must be maintained in occupational specialty courses
Minimum 60.5 Credit Hours/78.5 Contact Hours

Notes: A Included in occupational specialty

Year 1 (Summer Semester) Credits: 2
MRT 110 INTRO TO CAREERS ON THE WATER (2/3)

Year 1 (Fall Semester) Credits: 16-17
MTH 110 or TECHNICAL MATH I (3/4) or
MTH 113 INTERMEDIATE ALGEBRA (4/4)
ENG 111 or ENGLISH COMPOSITION I (3/3) or
ENG 120 APPLIED COMMUNICATION (3/3)
APP 106M INDUSTRIAL SAFETY (1/1)
IND 120 INDUSTRIAL NETWORKING (3/4)
APP 100E ELECTRICAL STUDIES FOR TRADES (3/4)
MRT 101 INTRO TO SUBMERSIBLE ROBOTICS W/Build (3/4)

Year 1 (Spring Semester) Credits: 15
MTH 112 or TECHNICAL MATH II (3/4) or
MTH 122 PLANE TRIGONOMETRY (3/3)
ENG 112 or ENGLISH COMPOSITION II (3/3) or
ENG 123 TECHNICAL COMMUNICATION (3/3)
CAD 150 3D MODELING (3/4)
APP 114E PROGRAMMABLE CONTROLLERS (3/4)
APP 123E LINEAR ELECTRONICS FOR ELECTRICIANS (3/4)

Year 2 (Summer Semester) Credits: 2
MRT 210 ROV PILOTING (2/3)

Year 2 (Fall Semester) Credits: 16.5-17.5
PHY 111 or APPLIED PHYSICS (3/4) or
PHY 121 GENERAL COLLEGE PHYSICS (4/6)
MFG 101 MACHINING PROCESSES I (4/6)
IND 229 HYDRAULIC & PNEUMATIC POWER (3/4)
CAD 220 MACHINE DESIGN (3/5/5)
APP 107E SPECIALTY WIRING (3/4)

Year 2 (Spring Semester) Credits: 14-17
EGR 130 TEAM DESIGN PROJECT (2/3)
ELE 220 PC BASE DATA ACQUISITION & CONTROL (3/4) A
GEO 151 INTRODUCTION TO GIS (1.5/2)
GEO 152 ADVANCED GIS (1.5/2)
PLS 221 or AMERICAN GOVERNMENT REQUIREMENT (3-6/3-6)
HST 221 & HST 222

Technical Elective (3/4)