

NAVAL ENGINEERING (NAVE) MINOR

Naval Engineering is defined as a field of study and expertise that includes all engineering and sciences as applied in the research, development, design, construction, operation, maintenance and logistic support of surface and subsurface ships, craft, aircraft, and vehicles (manned and autonomous) used by the Navy for the Nation's defense. It inherently includes multiple engineering disciplines, and hence it is open to all students in the College of Engineering who meet the following requirements.

A minor in Naval Engineering consists of not less than 18 semester-credit-hours. For successful completion of the Minor, students must maintain a 2.0 in-Minor GPA with a minimum grade of C- or better in all courses that the student counts towards the minor.

Code	Title	Credits
Required Minor Courses		
AOE 2204	Introduction to Ocean Engineering	3
AOE 4264	Principles of Naval Engineering	3
AOE 4244	Naval and Marine Engineering Systems Design	3
Select a minimum of 9 additional credits of the following: ¹		9
AOE 4265	Ocean Vehicle Design (with approved NE focus)	
AOE 4266	Ocean Vehicle Design (with approved NE focus)	
XXX 4994	Undergraduate Research w/NE focus ²	
AOE 3134	Air Vehicle Dynamics ³	
AOE 3124	Aerospace Structures ³	
AOE 3154	Astromechanics ³	
AOE 3164	Aerothermodynamics and Propulsion Systems ³	
AOE 3224	Ocean Structures ³	
AOE 3234	Ocean Vehicle Dynamics ³	
AOE 3264	Thermodynamics and Marine Propulsion ³	
AOE 4234	Aerospace Propulsion Systems ³	
CEE 3104	Introduction to Environmental Engineering	
CHE 2164	Chemical Engineering Thermodynamics	
CS 3724	Introduction to Human-Computer Interaction ³	
CS 3114	Data Structures and Algorithms ³	
CS 3304	Comparative Languages ³	
ECE 3054	Electrical Theory ³	
ECE 3304	Introduction to Power Systems ³	
ECE 4224	Power Electronics ³	
ECE 3574	Applied Software Design ³	
ECE 3504	Principles of Computer Architecture ³	
ESM 2204	Mechanics of Deformable Bodies	
ESM 3054	Mechanical Behavior of Materials	
ESM 4044	Mechanics of Composite Materials ³	
ESM 4734/ AOE 4024	An Introduction to the Finite Element Method ³	
ISE 3614	Human Factors Engineering and Ergonomics	
ISE 2014	Engineering Economy	
ISE 2404	Deterministic Operations Research I	
ISE 3414	Probabilistic Operations Research ³	
ISE 3624	Industrial Ergonomics	

ISE 4005	Project Management and Systems Design ³
ME 3124	Thermodynamics
ME 3304	Heat and Mass Transfer
ME 3404	Fluid Mechanics
ME 3514	System Dynamics
ME 4124	Computer Aided Design of Fluid-Thermal Systems ³
MSE 4164	Principles of Materials Corrosion
MSE 4034	Thermodynamics of Materials Systems ³
MSE 3054/3064	Mechanical Behavior of Materials

Total Credits **18**

¹ The broad range and large number of these courses reflects the multiple engineering disciplines inherent in Naval Engineering.

² 6 w/ above

³ Prerequisites may apply – see your advisor.

This minor supports the requirements of the Naval Engineering Education Consortium (NEEC) in which students may also participate. The consortium provides opportunities for industry and US Navy mentors, projects, internships, co-ops and job opportunities.