UNIVERSITY OF RHODE ISLAND / NUCLEAR ENGINEERING

SPRING 2027 • NUE 518 • 3 CREDITS

Marine Nuclear Propulsion & Power

Graduate course | Catalog title: Naval Nuclear Propulsion & Power



Wednesdays & Fridays • 3:30–4:45 p.m. • Bliss Hall 110

NUE 518-0001 • Class #7051 • Listed course dates: Jan 26–May 3, 2027

How do nuclear reactors deliver reliable propulsion and power at sea? Explore the engineering choices that connect the reactor core, the vessel, and the safety case.

DESIGN

Reactor physics, core design, thermal hydraulics, shielding, and propulsion plant integration.

OPERATION

Power conversion, reactor dynamics, instrumentation, control, and performance in the marine environment.

SAFETY

Accident analysis, engineered protection, risk assessment, model validation, and lifecycle responsibilities.

WHO SHOULD CONSIDER THIS COURSE

Graduate students

Explore marine nuclear systems through engineering analysis and applied case studies.

Nuclear engineering minor students

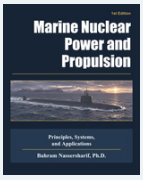
Substitute for MCE/CHE/NUE 472, Nuclear Power Plant Design and Safety Analysis.

Engineering students

A professional elective connecting reactor engineering with marine systems.

Practicing professionals

Develop understanding of marine nuclear plant design, operation, and safety analysis.



COURSE TEXTBOOK / NEWLY PUBLISHED

Marine Nuclear Power and Propulsion

Principles, Systems, and Applications • Bahram Nassersharif

Amazon

Google Play Books — not yet available

INSTRUCTOR Prof. Bahram Nassersharif

Distinguished University Professor • Director, Nuclear Engineering Program

Enrollment questions or permission to enroll: bn@uri.edu