

Nuclear Engineering (Minor)

To see more about what you will learn in this program, visit the Learning Outcomes website (<https://apps.oirp.ncsu.edu/pgas/>)!

The minor in Nuclear Engineering is intended to allow engineering students to develop an understanding of the fundamental concepts and practices of nuclear engineering. It is designed to provide students with the essentials necessary for employment in nuclear-related fields. Students considering advanced study should also benefit from the minor in nuclear engineering.

Admissions and Certification of Minor

Students are to contact Lisa Marshall to discuss their plan of study. Lisa Marshall will also certify completion of the student's minor program. The minor must be completed no later than the semester in which the student expects to graduate from his or her degree program. Paperwork for certification should be completed no later than during the registration period for the student's final semester at NC State. To be admitted to the program, a student must have a GPA of at least 2.0. Application for admission to any University minor program is now available via MyPack Portal. Admission will be based upon the student's academic record, and in most cases no longer requires departmental review. Go to Add a Minor (https://go.ncsu.edu/minor_coda/) to apply.

Contact Person

Lisa Marshall
Associate Director of Undergraduate Program
3150 Burlington Engineering Laboratories
919.515.5876
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SIS Code: 14NEM

Plan Requirements

- Complete a minimum of 16 credit hours of NE designated courses.
- All courses must be completed with a grade of 'C-' or higher.

Code	Title	Hours	Counts towards
Required Courses			
NE 201	Introduction to Nuclear Engineering	2	
NE 202	Radiation Sources, Interaction and Detection	4	
NE 301	Fundamentals of Nuclear Engineering	3	
Elective Courses ¹			
Select two of the following:		6-8	
NE 400	Nuclear Reactor Energy Conversion ²		

NE 401	Reactor Analysis and Design ²
NE 402	Reactor Engineering
NE 404/504	Radiation Safety and Shielding
NE 409/509	Nuclear Materials
NE 412/512	Nuclear Fuel Cycles
NE 528	Introduction to Plasma Physics and Fusion Energy

Total Hours **15-17**

- ¹ At the Director's discretion, he can substitute a course for one of the electives listed.
- ² Mechanical Engineering majors may present MAE 310 Heat Transfer Fundamentals as the NE 400 Nuclear Reactor Energy Conversion prerequisite for NE 402 Reactor Engineering. The other prerequisite NE 401 Reactor Analysis and Design is still needed.