

NRE 3208

Research Assistantship / Undergraduate Research

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Course Description: This course covers the basic computational tools needed to perform research in various reactor physics and engineering applications.

Course Objectives:

At the completion of this course, students will be able to:

1. Understand the technical topics that constitute the discipline of reactor physics.
2. Explain the theory of nuclear fission reactors using mathematical models and their associated physical behaviors.
3. Understand the process of cross-section generation.
4. Solve practical reactor physics problems using Monte Carlo and deterministic tools.
5. Understand the relationship between basic Reactor Physics concepts and actual reactor characteristics.