

NUCL 200, Introduction to Nuclear Engineering

1. 3 Credit Hours

2. Instructor(s): A. L. Garner

3. Textbook(s):

- a. Lamarsh, J.R, Baratta, A.J. "Introduction to Nuclear Engineering," 4th Ed., Pearson, 2018

4. Course Description

A course designed to acquaint students with the field of nuclear engineering and design. Concepts of fission, fusion, radioactivity, and neutron physics are introduced. Modern applications of nuclear technology, including nuclear medicine, food preservation, space reactors and propulsion.

5. Pre-requisite: PHYS 172 and MA 162 or equivalent

6. Classification: Required

7. Learning Objectives

- a. To describe the fundamental concepts and principles of nuclear engineering
- b. To perform basic radiation and nuclear reactor calculations.
- c. To describe the root causes and effects of nuclear reactor accidents.

8. ABET Student Outcomes

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.