Nuclear Reactor Materials

Course Information

- **Instructor:** Chaitanya Deo (chaitanya.deo@me.gatech.edu)
- **Course Prefix and Number:** NRE 4795
- **Term:** Fall 2026

Course Description

In this course, students will be introduced to structure property relationships in nuclear materials. Literature from a wide variety of sources will be collated in order to present the students with a sound understanding of materials performance in both nuclear reactor environments.

Course Learning Outcome

- To provide a comprehensive introduction to the topic of nuclear reactor materials
- To develop skills for effective oral and written communication with audiences of varying background within the context of nuclear reactor materials.
- To develop critical skills for professional practice in nuclear and radiological engineering.

Required Course Materials

- Class notes and lecture materials
- K. Whittle, “Nuclear Materials Science”, IOP Publishing

Grading Policy

This course is graded on a letter grade basis. Grade components are

- Midterm exam 1 20
- Midterm exam 2 z0
- Final Exam 30
- Class Project 15
- Assignments 15

Attendance Policy

Students are expected to attend all classes. Some assignments will be in-class work.

Academic and Research Honesty/Integrity Statement

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review the Student Code of Conduct and the Academic Honor Code, especially Appendix A: Graduate Addendum to the Academic Honor Code.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Core IMPACTS

Not applicable

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The Student-Faculty Expectations articulates some basic expectations that you can have of me and that I have of you. Additional information for research-related work is given in The Expectations of Advisors and Advisees. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.