

# GRADUATE SCHOOL-GRAD (GRAD)

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## Courses

**GRAD 510 Fundamentals of High Performance Computing Credits: 3 (2-2-0)**

**Course Description:** UNIX; networks; scalar, vector, and parallel architectures; performance programming.

**Prerequisite:** None.

**Registration Information:** Graduate standing. Must register for lecture and laboratory.

**Term Offered:** Spring.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**GRAD 511 High Performance Computing and Visualization Credits: 3 (2-2-0)**

**Course Description:** Iterative methods for linear systems; Monte Carlo methods; visualization and image processing.

**Prerequisite:** GRAD 510.

**Registration Information:** Must register for lecture and laboratory.

**Term Offered:** Fall.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**GRAD 530 Introduction to Graduate Research Credit: 1 (1-0-0)**

**Course Description:** Develop the skills to participate effectively in graduate research and scholarly work (both orally and in writing) and learn how to successfully function in their respective academic discourse communities. Prepare students for advanced courses that support them in research communications within their discipline.

**Prerequisite:** None.

**Restriction:** Must be a: Graduate.

**Registration Information:** Graduate standing. This is a partial semester course. Credit not allowed for both GRAD 530 and GRAD 580A2.

**Terms Offered:** Fall, Spring.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**GRAD 540 Graduate Research Communication Credits: 2 (2-0-0)**

**Course Description:** Continue the development of the skills to participate effectively in graduate research and scholarly work (both orally and in writing) and learn how to successfully function in their respective academic discourse communities. Preparation for advanced courses that support research communications within disciplines.

**Prerequisite:** None.

**Restriction:** Must be a: Graduate.

**Registration Information:** Graduate standing. This is a partial semester course. Credit not allowed for GRAD 540 and GRAD 580A2.

**Terms Offered:** Fall, Spring.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**GRAD 544 Ethical Conduct of Research Credit: 1 (1-0-0)**

**Course Description:** Principles and practice of ethical conduct of research.

**Prerequisite:** None.

**Registration Information:** Graduate standing. This is a partial semester course.

**Terms Offered:** Fall, Spring.

**Grade Mode:** S/U Sat/Unsat Only.

**Special Course Fee:** No.

**GRAD 550 STEM Communication Credit: 1 (1-0-0)**

**Course Description:** Review and practice of key communication principles for Science, Technology, Engineering, and Mathematics (STEM) professionals.

**Prerequisite:** None.

**Registration Information:** Graduate standing. Sections may be offered: Online.

**Terms Offered:** Fall, Spring.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**GRAD 575 Ethical Issues in Big Data Research Credit: 1 (1-0-0)**

**Also Offered As:** NSCI 575.

**Course Description:** Examines big data research through an applied interdisciplinary approach to ethical issues surrounding collection, use, reporting, and preservation of big data. Incorporates a wide range of transferable skills training, so students are well equipped to engage and lead data-centric research within or outside academia.

**Prerequisite:** None.

**Registration Information:** Senior standing. This is a partial semester course. Credit allowed for only one of the following: GRAD 575, NSCI 575, or NSCI 580A2.

**Term Offered:** Spring.

**Grade Mode:** Traditional.

**Special Course Fee:** No.

**GRAD 592 Water Resources Seminar Credit: 1 (0-0-1)**

**Course Description:** Interdisciplinary seminar emphasizing issues important to water resources community. Content relates to a preselected theme each semester.

**Prerequisite:** None.

**Term Offered:** Fall.

**Grade Mode:** Instructor Option.

**Special Course Fee:** No.

**GRAD 596 Group Study-Graduate Education Credits: Var[1-3] (0-0-0)**

**Course Description:** Preparation for graduate education.

**Prerequisite:** None.

**Registration Information:** Graduate School approval.

**Term Offered:** Summer.

**Grade Mode:** S/U Sat/Unsat Only.

**Special Course Fee:** No.

**GRAD 792 Seminar on College Teaching Credits: 2 (0-0-2)**

**Course Description:** Role of college teacher emphasizing applied principles and practices derived from empirical research and collective experience of teaching professors.

**Prerequisite:** None.

**Restriction:** Must be a: Graduate, Professional.

**Registration Information:** Graduate standing.

**Terms Offered:** Fall, Spring.

**Grade Mode:** S/U Sat/Unsat Only.

**Special Course Fee:** No.