

**MAT 511**  
**Advanced Calculus**  
**MW3:45-5:05 Carn 219**

**Professor:** Andrew Vogel

Office: 229F Physics Building Phone: 443-1584

Office hours: TuTh, 10:00-11:00pm, W, 9:00-10:00pm, and by appointment.

email: [alvogel@syr.edu](mailto:alvogel@syr.edu) **Prerequisites:** MAT 331 and MAT 397.

**Textbook:** *Advanced Calculus*, Gerald. B. Folland. We will cover parts of chapters 1-5. Topics include, differentiability of transformations between euclidean spaces, Taylor's theorem, extreme value problems, implicit function theorem, inverse function theorem, curves and surfaces, integration in higher dimensions, change of variables for multiple integrals. Finishing with the main point of the course: line and surface integrals, Green's theorem, Divergence theorem, Stokes theorem.

**Calculators:** You are allowed to use a graphics calculator (such as the TI-83+) on all assignments, quizzes and exams (including the final). Symbolic calculators (such as the TI-89 or the TI-92) may not be used on quizzes or exams (including the final).

**Grading:** There will be one semester exam (30%) on october 21, the final exam (40%) and weekly homework (30%)

Tests will be given in lecture. The final exam will be cumulative. There will be **no make-ups** for the test or final exam. If you have an excused absence for one of the tests, your grade on the relevant portion of the final will be used.

**Academic Integrity:** The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see <http://academicintegrity.syr.edu>

**Disability:** Students who may need academic accommodations due to a disability are encouraged to discuss their needs with the instructor at the beginning of the semester. In order to obtain authorized accommodations, students should be registered with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498 and have an updated accommodation letter for the instructor. Accommodations and related support services such as exam administration are not provided retroactively and must be requested in advance." For more information about services and policy, see Office of Disability Services