

Engineering 143

Tuesday, Thursday 11:30-12:55

Instructor: Theodore Drivas (tdrivas@math.stonybrook.edu)**Office:** Math Tower 4-114**Office Hours:** Thursday 1:00-3:00pm, or by appointment.**Course Webpage:** <https://www.math.stonybrook.edu/~tdrivas/MAT203.html>**Recitation sections:**

R01 80837	W 11:00–11:53am	Earth&Space 079	Pranav Upadrashta
R02 80838	F 1:00–1:53pm	Physics P113	Jiaji Cai
R03 87029	Tu 1:00–1:53pm	Physics P130	Jiaji Cai
R04 87616	Th 4:00–4:53pm	Physics P112	Jacob Mazor

Course Description. This course will cover material in *Vector Calculus* by J. Marsden and A. Tromba. Topics include vector spaces, limits and differentiation of vector valued functions, Taylor’s formula, integration in two- and three-dimensional spaces as well as line and surface integrals, and the integration theorems (Green, Gauss, and Stokes) generalizing the fundamental theorem of calculus in dimension one. The material provides essential tools for engineering, physics, economics, and life sciences. May not be taken for credit in addition to AMS 261.

Textbook: J. Marsden and A. Tromba, *Vector Calculus*, 6th edition.

Prerequisites: C or higher in MAT 127, MAT 132, MAT 142 or AMS 161, or level 9 on the mathematics placement examination, **SBC:** STEM+, **Credits:** 4

Exam Dates

- Midterm: Thur. Nov. 9th – in class
- Final Exam: Weds. Dec. 13th, 2:15–4:45 pm

Graded Components

- Quizzes – 40%
- Midterm – 30%
- Final – 30%

Gradescope. Please register for Gradescope (assignments and grading platform for the course) on gradescope.com. Use the entry code “**PXDZ5E**” when registering, this will insure you will be added to the right course. Please submit jpeg files for each problem (quizzes and tests):

- login into gradescope, and go to your homepage www.gradescope.com/account
- chose the course MAT 203
- chose the assignment you want to submit
- chose “submit images”
- select images for each problem (if you did not solve the problem, submit an empty jpeg)
- submit your assignment

Homework. Homework questions from the book, as well as some supplementary problems, will be assigned each week. The homework will *not* be collected. Instead there will be a quiz in recitation which will feature a selection of problems from the homework. You are encouraged to write careful solutions and discuss homework problems with your fellow classmates.

Quizzes. As part of the course, you are enrolled in one of the corresponding **recitation sections**. This is a chance to review the material, ask questions and get additional practice. Most weeks will also feature a short quiz at the start of class. **Each quiz be comprised of one randomly selected problem from that week’s homework.** You must take a picture

of this problem after and submit to gradescope right away – turn in the physical problem to your TA. There will be 11 quizzes throughout the semester (every week with the exception of weeks of 8/28, 10/9, 11/6, 11/20, 12/11), - the lowest score will be dropped.

Exams. No make-up exams will be given. If a student misses a midterm exam with documented evidence, then the student's final exam grade will be substituted for the missed midterm. A student must sit the final at the scheduled time in order to receive a passing grade in the class.

Student Absences Statement. Students are expected to attend every class, report for examinations and submit major graded coursework as scheduled. If a student is unable to report for any exams or complete major graded coursework as scheduled due to extenuating circumstances, the student must contact the instructor as soon as possible. Students may be requested to provide documentation to support their absence and/or may be referred to the Student Support Team for assistance. Students will be provided reasonable accommodations for missed exams, assignments or projects due to significant illness, tragedy or other personal emergencies. In the instance of missed lectures, the student is responsible for the material covered. Please note, all students must follow Stony Brook, local, state and Centers for Disease Control and Prevention (CDC) guidelines to reduce the risk of transmission of COVID. For questions or more information, visit <https://www.stonybrook.edu/commcms/comingback/students.php>.

Disability Support Services. If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services (631) 632-6748 or

`studentaffairs.stonybrook.edu/dss/`

They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website:

`www.sunysb.edu/facilities/ehs/fire/disabilities`

Academic Integrity. Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instance of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at

`www.stonybrook.edu/uaa/academicjudiciary/`

Critical Incident Management. Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, and/or inhibits students' ability to learn.