

# MAT 203: CALCULUS III WITH APPLICATIONS SYLLABUS

SPRING 2026

**Instructor:**

Johan Asplund, [johan.asplund@stonybrook.edu](mailto:johan.asplund@stonybrook.edu), Math Tower 3-116

**Class time & location:** MW 5:00–6:20pm, [Earth&Space 001](#)

**Office and MLC hours:** [math.stonybrook.edu/cards/asplundjohan.html](http://math.stonybrook.edu/cards/asplundjohan.html)

**Course webpage:** [math.stonybrook.edu/~jasplund/mat203\\_spring26](http://math.stonybrook.edu/~jasplund/mat203_spring26)

**Recitation 01:**

**TA:** Jiaji Cai, [jiaji.cai@stonybrook.edu](mailto:jiaji.cai@stonybrook.edu)

**Class time & location:** Tue 2:00–2:55am, [Physics P130](#)

**Recitation 02:**

**TA:** Aritra Chatterjee, [aritra.chatterjee@stonybrook.edu](mailto:aritra.chatterjee@stonybrook.edu)

**Class time & location:** Wed 11:00–11:55am, [Library N4072](#)

**Recitation 03:**

**TA:** Jiaji Cai, [jiaji.cai@stonybrook.edu](mailto:jiaji.cai@stonybrook.edu)

**Class time & location:** Tue 12:30–1:25pm, [Physics P112](#)

**Recitation 04:**

**TA:** Adityo Mamun, [adityo.mamun@stonybrook.edu](mailto:adityo.mamun@stonybrook.edu)

**Class time & location:** Fri 2:00–2:55pm, [Physics P116](#)

**Recitation 05:**

**TA:** Aritra Chatterjee, [aritra.chatterjee@stonybrook.edu](mailto:aritra.chatterjee@stonybrook.edu)

**Class time & location:** Wed 9:30–10:25am, [Physics P116](#)

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**Course description:** Vector algebra in two and three dimensions, multivariate differential and integral calculus, optimization, vector calculus including the theorems of Green, Gauss, and Stokes. Applications to economics, engineering, and all sciences, with emphasis on numerical and graphical solutions; use of graphing calculators or computers. May not be taken for credit in addition to AMS 261 or MAT 205.

**Prerequisites:** C or higher in MAT 127 or 132 or 142 or AMS 161 or level 9 on the mathematics placement examination

**Attendance:** Strongly encouraged, but not mandatory.

**Textbook:** OpenStax Calculus Vol. 3. This book is free and available for download at this URL: <https://openstax.org/details/books/calculus-volume-3>.

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**Brightspace:** We will use Brightspace for announcements and grades at the end of the course.

**Homework:** There will be weekly homework consisting of two problems from the textbook. Each homework should be handed in physically at the recitation the upcoming week. Late submissions are not accepted.

You are welcome to collaborate with your classmates on the homework problems, but you must write up your own solutions in your own words.

The lowest homework score will be dropped at the end of the course, before calculating your final grade.

**Quizzes:** A weekly quiz will be held at the last 15 minutes of each recitation, where you will be asked to solve one problem from the quiz pool consisting of 4–6 problems each week.

The lowest quiz score will be dropped at the end of the course, before calculating your final grade.

**Exam dates:** You must bring your University ID to all exams.

Exam	Date	Time	Location
Midterm I	Mon Feb 23	5:00–6:20pm	In class
Midterm II	Mon Apr 13	5:00–6:20pm	In class
Final	Wed May 13	5:30–8:00pm	TBA

**Grades:**

Homework:	10%
Quiz:	10%
Midterm I:	25%
Midterm II:	25%
Final:	30%

**Makeup exams:** Not available. If you e.g. miss one midterm exam with documented evidence (for instance, a letter from Student Accessibility Support Center), the instructor may allow you to shift the weight of the missed midterm exam to the final exam, so that it instead counts with weight 55% in your final grade. A student must attend the final exam at the scheduled time in order to receive a passing grade in the course.

**Tentative schedule:** See the course webpage for the most up-to-date schedule and for notes. All sections refer to sections in the course textbook.

Week of	Contents	Sections
Jan 26	Vectors dot product and cross product	2.1–2.4
Feb 2	Lines and planes and parametrizing curves	2.5, 1.1–1.2
Feb 9	Quadratic surfaces and different coordinate systems	1.5, 2.6, 2.7, 3.1
Feb 16	Calculus of vector-valued functions, Midterm review	3.2–3.3
Feb 23	Midterm I, Functions of several variables	4.1–4.2
Mar 2	Partial derivatives, tangent planes and the chain rule	4.3–4.5
Mar 9	Directional derivatives, gradient and optimization	4.6–4.7
Mar 16	Lagrange multipliers, Double integrals I	4.8, 5.1
Mar 23	Double integrals II, Triple integrals I	5.2–5.4
Mar 30	No class (Spring recess)	5.2–5.4
Apr 6	Triple integrals II, Midterm review	5.5
Apr 13	Midterm II, Vector fields	6.1
Apr 20	Line integrals, conservative vector fields, Green's theorem	6.2–6.4
Apr 27	Surface integrals, Stokes' theorem	6.5–6.7
May 4	The divergence theorem, final review	6.8
May 13	Final exam	

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**Student Accessibility Support Center Statement:** If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, Stony Brook Union Suite 107, (631) 632-6748, or at

[sasc@stonybrook.edu](mailto:sasc@stonybrook.edu). They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

**Academic Integrity Statement:** 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 is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology and Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at [https://www.stonybrook.edu/commcms/academic\\_integrity/](https://www.stonybrook.edu/commcms/academic_integrity/).

**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 Student Conduct and Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.