MATH 120: Multivariable Calculus
Summer 2024

Instructor:	Tam Cheetham-West	**Time:**	MWF 10 pm - 11:30 am EST
Office:	Zoom (bit.ly/Multi120Zoom)	**Classroom:**	Zoom (bit.ly/Multi120Zoom)
Office Hours:	TTh 1 pm - 2 pm EST	**Email:**	`tamunonye.cheetham-west@yale.edu`

Course Content: In Math 120, one mostly studies the geometry and calculus of three-dimensional objects. No prior experience with multivariable calculus is necessary. However, a solid foundation in single variable calculus is needed for this class. Some of the topics include: the vector geometry of three dimensions, scalar and vector functions of one and two variables, partial derivatives, directional derivatives, multiple integrals, cylindrical and spherical coordinates, parameterized curves and surfaces, gradient, divergence, curl, line and surface integrals, and the theorems of Gauss, Green, and Stokes. The course is fast-paced and so it is important to keep up with the assignments and reading to do well.

Prerequisites: The prerequisite for this course is integral calculus (at the level of AP Calculus BC or equivalent). One may also place into Math 120 via the placement exam.

Textbook: James Stewart's *Multivariable Calculus Early Transcendentals*, 8th edition, Thompson

Homework: There will usually be weekly homework assignments. You must write up your solutions on your own, and in your own words. Homework solutions should be neat, readable, and in complete sentences. Late homework will not be accepted. Your lowest homework score will be dropped. Written homework will be submitted via Gradescope.

Attendance: Class attendance is mandatory.

Exams: There will be two mid-term exams. There will also be a final on the last day of class. These will be timed remote tests submitted via Gradescope.

Grading: The course grade will be based on homework, the lecture summary project, two mid-term exams, and the final exam. Your grade will be determined as in Table 1.

Homework	Mid-term 1	Mid-term 2	Final
20%	25%	25%	30

Table 1: Weighted averages

The final letter grade will be based on the grade thresholds in Table 2.
Your grade will be at least what is shown in this table.

Office Hours: I will have two office hours per week, where you may come to discuss the lectures, the homework problems, or anything about the course.

Accessibility: My aim is to make this course accessible to every student and deliver content in ways that support individual learning needs. Please reach out to me if you encounter any barriers in the course. If you need and are not currently receiving exam accommodations (additional time, breaks, scribing, large-text, etc.), reach out to Student Accessibility Service as soon as possible. If you need help navigating the accommodations process, check out the Disability Empowerment for Yale (DEFY). If you need additional support to manage mental health concerns, reach out to Mental Health and Counseling, the Yale Psychology Department Clinic, the Good Life Center, or Walden Peer Counseling.

Grade	Range %
A	≥ 95
A-	90-94.99
B+	87-89.99
B	83-86.99
B-	80-82.99
C+	75-79.99
C	70-74.99
C-	65-69.99
D	50-64.99
F	<50

Table 2: Final grade thresholds