

MAT 2331 - Calculus III

Basic Information:

Instructor Name	TBA
E- Mail	
Home Institution	
Office	TBA
Office Hours	TBA, and by appointment

Course Description:

Solid analytic geometry, cylindrical and spherical coordinates, indeterminate forms, sequences, series, convergence tests, Taylor series, differentiation and integration of series, partial derivatives, total and exact differentials, and multiple integrals.

Required Course Materials:

Textbook	Edition	Author	Publisher	ISBN-13
Calculus	11	Anton, Bivens and Davis	Wiley	978 1 118 88613 7

Link to e-book purchase address:

<https://www.amazon.com/Calculus-Binder-Ready-Version-Howard/dp/1118886135>

Course Hours:

The course has 17 class sessions, a 5-hour field trip and four 80-minute after-class discussion. Each class session is 160 minutes in length. The course normally meets from Monday to Friday. This course has a total of 66 contact hours including a final exam. Final exams are scheduled on July 27, 2019.

Prerequisite:

None

Tentative Course Schedule:

Week	Session	Day	Topic (s)	Chapter(s)
Week 1	July 4	Th	School Orientation	
	July 5	F	Polar Coordinates Conic Sections Rectangular Coordinates in 3-Space; Spheres; Cylindrical Surfaces	10&11
	July 5 18:40-20:00	F	After-class Discussion	
	July 6	Sat	Vectors Dot Product; Projections Cross Product	11

Week 2	July 8	M	Parametric Equations of Lines Planes in 3-Space	11
	July 9	T	Quadric Surfaces Cylindrical and Spherical Coordinates	11
	July 10	W	Introduction to Vector-Valued Functions Calculus of Vector-Valued Functions Change of Parameter; Arc Length Test #1	12
	July 11	Th	Unit Tangent, Normal, and Binormal Vectors Curvature Motion Along a Curve	12
	July 11 18:40-20:00	Th	After-class Discussion	
	July 12	F	Functions of Two or More Variables Limits and Continuity Partial Derivatives	13
Week 3	July 15	M	Differentiability, Differentials, and Local Linearity The Chain Rule Directional Derivatives and Gradients	13
	July 16	T	Tangent Planes and Normal Vectors Maxima and Minima of Functions of Two Variables Lagrange Multipliers Test #2	13
	July 17	W	Double Integrals over Nonrectangular Regions Double Integrals in Polar Coordinates Surface Area; Parametric Surfaces	14
	July 18	Th	Triple Integrals Triple Integrals in Cylindrical and Spherical Coordinates Change of Variables in Multiple Integrals; Jacobians	14
	July 18 18:40-20:00	Th	After-class Discussion	
	July 19	F	Field Trip (5 hours) Company Visit of Industrial Bank Co.,LTD Industrial Bank is one of the first batch of joint-stock commercial banks in China and represents a time of change. Industrial Bank will arrange their HR manager and Business manager to introduce key elements of their bank operations.	

Week 4	July 22	M	Vector Fields Line Integrals	15
	July 23	T	Independence of Path; Conservative Vector Fields Green's Theorem	15
	July 24	W	Surface Integrals	15
	July 25	Th	Final Exam Review	
	July 25 18:40-20:00	Th	After-class Discussion	
	July 26	F	Reading Day	
	July 27	Sat	Final Exam	

Grading Policies:

<u>Part</u>	<u>Percentage</u>
Homework	20%
Tests*2	30%
Attendance/ Participation	10%
Final Exam	40%
Course Total	100%

Grade Distribution:

<u>Percentage</u>	<u>Letter Grade</u>	<u>Grade Points</u>
100-90	A	4.0
80-89	B	3.0
70-79	C	2.0
60-69	D	1.0
59 or below	F	0.0

Exam Policy

The two tests and one final exam is close-book exams and notes are not allowed.

Academic Integrity

School expects honesty from students in presenting all of their academic work. Students are responsible for knowing and observing accepted principles of scholarly research and writing in all academic work.

Academic dishonesty or cheating includes acts of plagiarism, forgery, fabrication or misrepresentation, such as the following:

- claiming the work or thoughts of others as your own
- copying the writing of others into your written work without appropriate attribution
- writing papers for other students or allowing them to submit your work as their own
- buying papers and turning them in as your own
- having someone else write or create all or part of the content of your assignments
- submitting the same paper for more than one study or class without explicit permission from the faculty members

General Principles

This program is committed to principles of trust, accountability, clear expectations and consequences. It is also committed to redemptive efforts, which are meaningful only in light of these principles. Students will be granted due process and the opportunity for an appeal.

Academic dishonesty offenses generally are subject to incremental disciplinary actions. Some first offenses, however, receive severe penalties, including dismissal from the program.

General Disciplinary

The following is a non-comprehensive list of possible actions apart from dismissal from the program: warning from a professor, program director; a lower or failing grade on an assignment, test or course; suspension or dismissal from the course; suspension or dismissal from the program.

Disciplinary Actions for Specific Offenses

Some academic dishonesty offenses call for specific disciplinary actions. The following have been identified:

Falsification of documents: Students who falsify or present falsified documents may be dismissed. Prospective students who are discovered to have presented falsified admission documents prior to admission shall be denied admission to the program. Should it be discovered after admission that a student had presented falsified documents for admission, such admission may be annulled and the record of academic achievement removed from the academic record, with appropriate notations. Such annulments or denials may be reviewed after one year.

Dishonesty in course requirements: Course work (a quiz, assignment, report, mid-term examination, research paper, etc.) in which a student has been dishonest generally will receive zero points towards the grade in fulfillment of a course requirement, and/or the student may receive a failing grade for the course. The professor of the course determines the appropriate consequence.

Final assignment: When a student cheats in a major or final assignment such as a comprehensive examination or presents plagiarized material in a major or final assignment, that student shall receive an F in that particular subject. Student cheats on more than two exams shall be dismissed from this program.