MA 242

(this document may be updated during the semester - follow the online version)

Instructor	**Name/Office**	Medvinsky Michael / SAS 3262		
	Office Hours	right after the class, by appointment or email		
		section 3, DAB 124	section 6, PS 201	section 7, SAS 2235
	Lectures	M W F 11:45am-12:35pm	M W 3:00 pm - 4:50 pm	M W 6:00 pm - 7:50 pm
TAs[1]	**Name/Office**	Reeshad A. (AC)/SAS 3201 Zebedee D. (BD)/SAS 3221	Diego P. - SAS 3263	Andrew S./SAS 3145
	Recitations			
	1:55pm - 2:45pm	T H SAS 2229(A) T H LMP 216(B)		
	3:00pm - 3:50pm	T H RD 339(C) T H PS 215(D)	T DAB 330	
	6:00 pm - 6:50 pm			T SAS 2235

Prerequisites: MA 241 with grade of C- or better or AP Calculus credit, or Higher Level IB credit.

Text: Franke, Griggs, and Norris, Calculus III for Engineers and Scientists, included with WebAssign.

Description of the course: Calculus III is the last course in the Calculus I, II, III sequence. Student will learn about Vectors in the plane and in 3-space, differential calculus in several variables, differentiation and integration and their applications in several variables, vector fields, and line, surface and volume integrals, Green's and Stokes Theorems.

Recitations: Each student will be enrolled in Tuesday Recitation section. Recitation classes will provide opportunities for reviews, help on homework, team work, practice. Recitations assignments will be worth 15% of your final grade grade given that you have submited at least 70% of the assignments.

WebAssign: All students must register online with WebAssign and pay the appropriate fees. Login to WebAssign ues https://www.webassign.net/ncsu/login.html. Due dates can be found on the WebAssign page. Do not procrastinate; start these early. Late submissions will not be accepted and no extensions will be given. WebAssign assignments will be worth 15% of your final grade grade given that you have submited at least 70% of the assignments.

Grading (not final): Provided that you have submitted at least 70% of each assignment your grade will be determined by your scores on the tests (40%), the final exam (30%), and the assignments Recitations(15%) and WebAssign (15%).

Letter grades are determined as follows: If X is your percentage grade, then $\{X \geq 98\% \Rightarrow A+; X \geq 92\% \Rightarrow A; X \geq 90\% \Rightarrow A-; X \geq 88\% \Rightarrow B+; X \geq 82\% \Rightarrow B; X \geq 80\% \Rightarrow B-; X \geq 78\% \Rightarrow C+; X \geq 72\% \Rightarrow C; X \geq 70\% \Rightarrow C-; X \geq 68\% \Rightarrow D+; X \geq 62\% \Rightarrow D; X \geq 60\% \Rightarrow D - X < 60\% \Rightarrow D\}$.
I reserve the right to modify these in special cases and to decide if the curve is needed.

Attendance policy Attendance will be taken each class. Attendance will be recorded, with no distinction made between excused and unexcused absences, except in the event of a missed test. If you miss class or are late, you are still responsible for all material covered and assignments due. In you missed test for a reason - please obtain a letter from student health center or absence verification office[2]. Attending less than 70% of the classes may negatively affect your course grade.

Mathematics Tutoring Center: Free tutorial is available in Mathematics Multimedia Center [3] at 2103 and 2105 SAS Hall. Hours are 8am-5pm Monday-Thursday.

Strategies for Success:

- **Attend class regularly. Check your email/Course website/Moodle site regularly. Read the relevant text book sections (and/or additional material if will be given) *before* you attend class. Ask questions and become involved during class sessions.**
- **Plan to do homework daily. You are encouraged to use computers to help learn and enhance the course material, as well as to solve and check homework problems. But keep in mind that your goal is to *understand* the material and that you will not have a computer with you during exams.**

[1] Ask your TA about their office hours.
[2] https://dasa.ncsu.edu/support-and-advocacy/find-help/absence-verification/
[3] https://www.math.ncsu.edu/mmc/

- **Be accountable for your own education. You are responsible for resolving confusion about assignments, due dates, exam dates, accommodations, etc.**
- **Know how grades are computed at the start of the semester and plan your effort accordingly.**
- **Form study groups with other students. However, the assignments you turn in *must represent your own work*.**
- **Come to the office hours of the instructor or TA. If you email us - please identify yourself and the class clearly. If you request help in homework - show your work (snapping your handwork is ok) and explain your problem.**

Exams: All exams are held in class, dates are fixed. Please plan your schedule around these dates now.

Test I	:	Wed	Feb	2	
Test II	:	Wed	Feb	23	
Test III	:	Wed	Mar	23	
Test IV	:	Wed	Apr	13	
Final					
sec 6	:	Fri	Apr	29	(3:30pm-6:00pm)
sec 7	:	Mon	May	2	(7:00pm-9:30pm)
sec 3	:	Wed	May	4	(12:00pm-2:30pm)

Academic Integrity and Honesty: Students are required to comply with the university policy on academic integrity and honesty found in the Code of Student Conduct [4]. *H*onor Pledge: your signature on any test or assignment indicates "I have neither given nor received unauthorized aid on this test or assignment."

Accommodations for Disabilities Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, student must register with the Disability Services Office[5].

Non-Discrimination Policy NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at http://policies.ncsu.edu/policy/pol-04-25-05 or http://www.ncsu.edu/equal_op. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 919-515-3148.

Tentative plan of lectures: The plan will be adjusted based on the actual progress without any notifications or changing this file.

Week	Dates	Chapters	Subjects
1	01/10 - 01/14	1.1, 1.2	Three Dimensional Cartesian Coordinates, Vectors
2	01/17 - 01/21	1.3-1.4	**Martin Luther King Holiday**, Dot Product, Cross Product
3	01/24 - 01/28	1.5,2.1	Lines and Planes, Vector Valued Functions,
4	01/31 - 02/04	2.2-2.3	**Test I**, Arclength, Curvature
5	02/07 - 02/11	2.3-2.4, beginning of 5.1,5.2,5.3	Motion in Space, Geometry of Curve,Spherical and Cylindrical Coordinates
6	02/14 - 02/18	6.4,3.1,3.2	Three Dimensional Lines and Tangent Lines, Three Dimensional Surfaces, Parametric Surfaces, Functions of Several Variables
7	02/21 - 02/25	3.3,3.4	**Test II**, Limits and Continuity, Partial Derivatives, Differentiability,
8	02/28 - 03/04	3.5-3.7	Directional Derivative, Gradients, Chain Rule, Tangent Plane , Maxima and Minima , Lagrange Multipliers
9	03/07 - 03/11	4.1,5.1, 6.5.1	Double Integrals, Iterated Integrals, Integration over General Regions, Double Integrals in Polar Coordinates , Surface Area
10	03/14 - 03/18		**Spring break**
11	03/21 - 03/25	4.3,5.2	**Test III** , Triple Integrals , Integrals in Cylindrical/Spherical Coordinates
12	03/28 - 04/01	6.5.3	Change of Variables, Jacobian
13	04/04 - 04/08	6.2-6.3	Line Integrals, Independence of Path
14	04/11 - 04/15	7.1-7.2, 6.5.2, 6.5.4	**Test IV** , Curl, Divergence, Surface Integrals
15-16	04/18 - 04/25	7.3-7.5	Green's Theorem, Gauss's Divergence Theorem Stokes' Theorem, Review

[4] http://policies.ncsu.edu/policy/pol-11-35-01
[5] http://www.ncsu.edu/dso also see regulations at http://policies.ncsu.edu/regulation/reg-02-20-01