# MA 241

(the following information may have some changes - follow the online version)

## Lecture

Instructor	:	Medvinsky Michael
Classes	:	MW 6:00pm - 7:50pm DAN 434
Office Hours	:	MW right after the class, or by appointment
Office	:	SAS 3266
E-mail	:	mmedvin@ncsu.edu

### Recitations

T.A.	:	Dylan Bruce	
Classes	:	Section A: T 4:30pm - 5:20pm SAS 1216	
	:	Section B: T 6:00pm - 6:50pm SAS 1216	
Office Hours	:	TBD, or by appointment	
Office	:	TBD	

Prerequisites: Prerequisite: MA 241 with grade of C- or better or AP Calculus credit.

**Description of the course:** MA241 is the second of three semesters in calculus sequence. Student will learn techniques and applications of integration, elementary differential equations, sequences, series, power series, and Taylor's Theorem.

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

**Recitations** Each student will be enrolled in one of two Tuesday Recitation sections. Recitation classes will provide opportunities for reviews, help on homework, team work, practice. Recitations assignments will be worth 10% of your final grade grade given that you have submitted at least 70% of the assignments.

WebAssign: All students must register online with WebAssign and pay the appropriate fees. Login to WebAssign use 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 10% of your final grade grade given that you have submited at least 70% of the assignments.

Maple: The Math department maintains a comprehensive Calculus with Maple webpage http://www.math.ncsu.edu/calculus. There are 4 scheduled Maple Homework Assignments distributed throughout the semester. The "Start" and the "Due Dates" are listed on the Maple webpage. Students with no prior knowledge in Maple will learn the Introductory Material on the MAPLE webpage. Maple assignments will be worth 10% of your final grade given that you have submited at least 70% of the assignments.

**Exams:** Dates are fixed. Please plan your schedule around these dates now. All absences must be excused in advance. No make up test will be given.

Test I	:	Monday	Feb	5	(in class)
Test II	:	Monday	Feb	26	(in class)
Test III	:	Monday	Mar	26	(in class)
Test IV	:	Monday	Apr	16	(in class)
Final Exam	:	Friday	May	4	(in class, 6:00 pm - 9:00 pm )

**Grading (not final):** Provided that you have submitted at least 70% of asignments your grade will be determined by your scores on the tests  $(4 \times 10 = 40\%)$ , the final exam (30%), and the assignments Recotations(10%), Maple(10%) and WebAssign (10%).

Letter grades are determined as follows: If X is your percentage grade, then  $\{X \ge 98\% \Rightarrow A+; X \ge 92\% \Rightarrow A; X \ge 90\% \Rightarrow A-; X \ge 88\% \Rightarrow B+; X \ge 82\% \Rightarrow B; X \ge 80\% \Rightarrow B-; X \ge 78\% \Rightarrow C+; X \ge 72\% \Rightarrow C; X \ge 70\% \Rightarrow C-; X \ge 68\% \Rightarrow D+; X \ge 62\% \Rightarrow D; X \ge 60\% \Rightarrow D-X < 60\% \Rightarrow D\}.$ 

I reserve the right to modify these in special cases and to decide if the curve is needed.

week	dates	chapters/sections	content
1	Jan 8,10	0.1 - 0.6	Introduction, Calculus I review: Functions, Limits, Conti- nuity, Differentiation, Integration
2	Jan 15, 17	1.1, 1.2	Martin Luther King Holiday, Arc Length , Average value of function
3	Jan 22, 24	1.3	Applications of Integration
4	Jan 29, 31	2.1,2.2	Trigonometric integrals, Trigonometric Substitution, Review for Test 1
5	Feb 5, 7	2.3, 2.4	Test 1, Partial Fractions, Table of Integrals
6	Feb 12, 14	2.5, 2.6	Numerical Integration, Improper Integrals
7	Feb 19, 21	3.1,  3.2	Introduction to Differential Equations, Separable Differen- tial Equations, Review for Test 2
8	Feb 26, 28	3.2,  3.3	Test 2, Orthogonal Trajectories, Applications of Differential Equations
9	Mar 5, 7		Spring Break.
10	Mar 12, 14	3.4,  3.5	Second Order Differential Equations
11	Mar 19, 21	3.6	Applications of Second Order Differential Equations, Review for Test 3
12	Mar 26, 28	4.1, 4.2	Test 3, Sequences, Series
13	Apr 2, 4	4.3, 4.4	Convergence Tests, Alternating Series
14	Apr 9, 11	4.5, 4.6	Absolute Convergence, Power Series, Interval of Conver- gence, Functions as Power Series, Review for Test 4
15	Apr 16, 18	4.8, 4,9	Test 4, Taylor and Maclaurin Series
16	Apr 23, 25		Slack time, Review

#### Tentative plan of lectures:

#### Strategies for Success:

- You are many I am one. Your help is needed!!! If for any reason you think something is wrong or can be improved or you are unhappy with what is happening please inform me immediately. I cannot solve your problem or provide a help if I'm not aware of it. From the other side, the sooner you come to me the faster your problem (and may be not only yours) will be solved. It will help nobody if you won't inform me it may help every one if you do it in time.
- Attend class 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.

- 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 .

Mathematics Tutoring Center: Free tutorial is available in Mathematics Multimedia Center (https://www.math.ncsu.edu/mmc/) at 2103 and 2105 SAS Hall. Hours are 8am-5pm Monday-Thursday. A schedule of tutors' hours is available at https://www.math.ncsu.edu/mmc/tutoring. php. A list of private tutors is available at https://www.math.ncsu.edu/mmc/tutorinfo.php.

Academic Integrity Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct at http://policies.ncsu.edu/policy/pol-11-35-01

Academic Honesty See http://policies.ncsu.edu/policy/pol-11-35-01 for a detailed explanation of academic honesty.

**Honor 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 (http://www.ncsu.edu/dso) located at 1900 Student Health Center, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation at http://policies.ncsu.edu/regulation/reg-02-20-01

**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.