

CALCULUS I
SPRING '12
[MATH 01.130-01]
JAN 17 – MAY 5

MTR ROB 324

M, T, R 4:45-6:00 PM

JAN 17 T INTRO LECTURE

R 1.1, 1.2

23 M 1.2, 1.3

T 1.4, 1.5

R 1.5, 1.6

30 M 1.7, 2.1

MATHEMATICA MANUAL CHAP. 1 DUE

T 2.2, 2.3

FEB 2 R 2.3, 2.4

6 M REVIEW

T **TEST 1 (SECTIONS 1.1 – 2.4)**

R RETURN TEST, 2.5, 2.6

13 M 2.6, 2.7

T **2.8, 2.9**

MATHEMATICA MANUAL CHAP 2 DUE

R 3.1, 3.2

20 M 3.2, 3.3

T 3.4, 3.5

R 3.5, 3.6,

27 M 3.7, 3.8

T 3.8, 3.9

MAR 1 R REVIEW

5 M **TEST 2 (SECTIONS 2.6 - 3.9)**

T RETURN TEST, 3.10, 3.11

R 3.11

MATHEMATICA MANUAL CHAP 3 DUE

MAR 12 – 16 SPRING BREAK - NO SCHOOL

19 M 4.1

T 4.2

R 4.3

26 M 4.4

T 4.7

R 4.8

APR 2 M 4.9

T 5.1

R 5.2

9 M 5.3

T 5.4

R 5.5

MATHEMATICA MANUAL CHAP 4 DUE

16 M 5.6

T **5.7**

R 6.1

23 M 6.2

T 6.3

R 6.4

MATHEMATICA MANUAL CHAP 5 DUE

30 M **REVIEW FOR FINAL**

Final Exam Week - TUES, MAY 1 – SAT. MAY 5
FINAL EXAM ON ALL CHAPTERS
CALCULUS I FINAL EXAM:

1. AFTER MATERIAL IS COMPLETED IN CLASS, THE HOMEWORK FOR THAT MATERIAL IS DUE THE VERY NEXT CLASS DAY.
2. STUDENTS ARE RESPONSIBLE FOR KNOWING ALL RULES AND REGULATIONS. IT IS THEIR DUTY TO FIND THEM OUT EVEN IF CLASS EXPLANATIONS ARE MISSED.
3. ATTENDENCE IS REQUIRED. FOR ABSENSES, MISSED WORK MAY BE MADE UP. HW MUST BE MADE UP WITHIN ONE WEEK OF RETURNING FROM ABSENSE..
4. STUDENTS ARE ENCOURAGED TO WORK TOGETHER ON HOMEWORKS AND GENERAL STUDYING. TESTS ARE THE EXCEPTION - THESE ARE PURELY INDIVIDUAL ACTIVITIES AND JOINT WORK IS NOT ACCEPTABLE.
5. THIS COURSE IS NOT AVAILABLE ON A PASS/NO CREDIT OPTION.

HOMEWORK ASSIGNMENTS

SECTION	PAGE	PROBLEMS	TOTALS
=====	=====	=====	=====
1.1	10	1,5,9,...,29,41,45,49,53,57	13
1.2	19	1,5,9,...,21,37,41	8
1.3	24	1,5,9,...,33	9
1.4	31	1,5,9,...,49	13
1.5	41	1,5,9,...,45	12
1.6	50	1,5,9,...,33	9
1.7	56	1,3,5,...,9	(69) 5
2.1	64	1,3,5,...,15	8
2.2	74	1,5,9,...,45	12
2.3	80	1,3,5,...,21	11
2.4	88	1,5,9,...,73	19
2.5	94	1,5,9,...,49	13
2.6	98	1,5,9,...,37	10
2.7	104	1,3,5,...,27,35,39	16
2.8	109	1,3,5,7,9,13,15	7
2.9	115	1,3,5,7	(100) 4
3.1	125	1,5,9,...,41	11
3.2	139	1,5,9,...,53	14
3.3	147	1,5,9,...,45	12
3.4	156	1,3,5,...,23	12
3.5	163	1,3,5,...,35	18
3.6	167	1,5,9,...,45	12
3.7	175	1,5,9,...,65,73,75	19
3.8	181	1,3,5,...,33	17
3.9	187	1,5,9,...,65	17
3.10	192	1,5,9,...,37	10
3.11	199	1,3,5,...,17	(151) 9

HOMEWORK ASSIGNMENTS (CONTINUED)

SECTION	PAGE	PROBLEMS	TOTALS
=====	=====	=====	=====
4.1	213	1,3,5,...,23, 45,49,53,57,61,63	18
4.2	222	1,5,9,...,53,65,67	16
4.3	232	1,5,9,...,45	12
4.4	238	1,5,9,...,45	12
4.7	262	1,3,5,...,19	10
4.8	272	1,3,5,9,11,13,17,19	8
4.9	280	1,5,9,...,65	(93) 17
5.1	297	13,17,19,35,37,41,45,49,57,61	10
5.2	307	1,5,9,...,65	17
5.3	314	1,5,9,...,45	12
5.4	320	1,5,9,...,33	9
5.5	326	1,3,5,...,17	9
5.6	333	1,5,9,...,65,77,81,85,89	21
5.7	339	1,5,9,...,65	(95) 17
6.1	361	1,5,9,...,41	11
6.2	372	1,3,5,...,15,39,41,43	11
6.3	381	1,5,9,...,45	12
6.4	389	1,5,9,...,25,33,35,39,41	(45) 11
			=====
TOTAL:			553

Each problem counts as 1 point. There is NO CREDIT for parts of problems. You either get full credit (1 point) for each problem or no credit.

MATHEMATICA ASSIGNMENTS:

Assignment #1: Chapter 1, Exercises 1-33(ODDS)	due M 1/30
Assignment #2: Chapter 2, Exercises 2.1(1-17),2.2(1-12),2.3(1,2,3)	due T 2/14
Assignment #3: Chapter 3, Exercises 3.1(1-9), 3.2(1-4),3.3(1-8)3.4(1-7)	due R 3/8
Assignment #4: Chapter 4, Exercises 4.1(1,2,3),4.2(1-5),4.3(1-8)4.4(1-5)	due T 4/3
Assignment #5: Chapter 5, Exercises 5.1(1-8),5.2(1,2),5.3(1-11),5.4(1-11)	due T 4/24

GROUP RESPONSIBILITIES

1. Set up 3-5 person groups:
 - a. Each group gets two 3x5 cards and put all names of group members and CONTACT INFO on them.
 - b. Elect group leader and indicate who on the 3x5 cards.
 - c. Select portfolio keeper, who should be the group leader but doesn't have to be. Indicate this on the 3x5 cards.
 - d. The portfolio keeper is responsible for collecting all info for portfolio and getting copies to group members.
 - e. The group leader is the group liaison with the prof.
 - f. One of the 3x5 cards goes to the prof and the other is put on the portfolio. **GROUP MEMBERS SHOULD SHARE CONTACT INFO.**

2. Meet and work on homework together and see to it that each member has worked out solutions to all problems. Each group must keep a portfolio for this purpose! There will be one copy of each correctly worked problem in this portfolio. Homework may be shared between groups. Providing assistance to group members is expected. Share phone numbers and offer help **BEFORE** class. The professor is also available if help is needed.

3. Groups will discuss difficulties and problems with this course regularly. The committee leader has the responsibility of speaking to the professor about these problems at the regular meetings with the professor (at least once per week). Other members of the group may attend with the group leader.

4. If there are projects due, each group will turn in one copy of the project to the professor. The members decide among themselves **WHO WILL DO WHAT WITHIN A PROJECT**. The professor will serve as a resource person if help is needed. Libraries, other professors, or students can also serve as resources.

SUPPLEMENTAL ACTIVITIES

Below are listed several ways to get SUPPLEMENTAL points. You must do 60 points worth of these activities. You get to choose which of these activities to do. Please note that these activities have due dates. You cannot get credit for any activity past the due date. You may, of course, turn things in early!

1. Mathematical autobiography (5 points) DUE FEB 3

Write an at most two page essay investigating your personal relationship with mathematics and statistics. What experiences formed your attitude toward math?

2. Review skills assignment (5 points) DUE FEB 3

This is an optional assignment for students who feel they would benefit from an Algebra and/or PreCalculus review. See the professor to get this assignment.

3. Computer Math (5 points/program - limit 3)

Check with professor for due dates. No more than one program/tutorial can be turned in per week. Students learn how to use a mathematics software package. Solve some of your homework exercises using the program and print out the problem and results from the computer.

Alternatively, if the software has a tutorial, work it out and print it up. There are many possible software packages. For example, MathCad, Macsyma, Maple, MatLab, Theorist, MacMath, and Derive. **YOU MAY NOT USE MATHEMATICA.** If you have a different program that you would like to learn, just ask the professor.

5. Additional Math Problems (1 - 45 points)

From time to time the professor will present opportunities to work on additional, more challenging math problems. Each problem solved is worth 1 point. The problems must be written up neatly, one problem per side of page, with plenty of explanation. These problems may be done either by individuals or as a group activity (**BUT HANDED IN INDIVIDUALLY**). They are due within three weeks after the homework for that section is done in class.

In this course, the supplemental problems are any of the even exercises from the text that are not done in class.

6. Five Page Report (up to 15 points)

This is an essay type report on a math topic, related to this course, of your choosing. You must get approval of your topic from the professor first. The professor will also work out with you a due date. There must be a bibliography containing at least 3 sources. You may not use the internet as a source. You must quote your sources in the essay (give the source and the page number in the source that you used).

7. EMail Account (5 points) DUE FEB. 17

The students must find out how to get an Email account and how to use it, and they must successfully send the professor a message.

8. Old Exams for Practice (5 points/exam - limit 3 exams)

See the professor to get copies of the old exams and due date is the review class before test..

ATTENDANCE POLICY

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Please review the College's attendance policy in the student handbook. The following class attendance policy is presented in accordance with THAT ATTENDENCE POLICY.

Mathematics learning depends on constant reinforcement, so missed classes are missed opportunities to practice what you have learned and are learning. A maximum of three (3) absences throughout the semester will be tolerated. After two or more consecutive absences, a note from a physician, or other proof, or explanation in writing for a non-medical emergency must be provided upon the student's return to class.

Students are responsible for all missed work. You may contact a classmate or the professor (**E-Mail address: Itzkowitz@Rowan.edu**) for the assignments.

The first three absences, will cost a loss of 4 points each. Every other **ADDITIONAL** absence will cost a loss of 10 points each. These lost points may be made up by doing additional Supplemental Activities (see Supplemental Activities sheet).

LATENESS POLICY

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The rationale given above for absences also serves as rationale for not coming late to class. Students are permitted three (3) latenesses per semester. That is, students will be allowed to get credit for homework due the day of the lateness only for the first three latenesses. After the first three latenesses, there will be no make-up for missed homework credit.

In addition, each of the first three latenesses will cost the loss of 2 points each. Each additional lateness will cost the loss of 5 points. These lost points may be made up by doing additional Supplemental Activities.

SOME STUDY HINTS

TO CREATE THE REALITY YOU WANT, USE:

- 1. THOUGHTS (DESIRES, WANTS, BELIEFS)**
- 2. WORDS (SPOKEN OR WRITTEN)**
- 3. ACTIONS**

#3 ABOVE IS MORE POWERFUL THAN #2 WHICH IN TURN IS MORE POWERFUL THAN #1.

ALSO NOTE THAT EMOTIONS, AND STRONG FEELINGS ACCELERATES THE MANIFESTATION OF YOUR CREATIVITY.

TO SOLVE PROBLEMS:

- 1. Preparation (state what needs to be solved, work on it)**
- 2. Incubation (Allow time for solution to manifest)**
- 3. Illumination (calmness or peacefulness is necessary for the solution to become conscious)**
- 4. Verification (necessary in science and math to convince others - this is the writing of the solution to check for errors)**

What this tells us about studying (in particular, math):

- 1. How well we learn a subject is proportional to the amount of time spent thinking about it.**
- 2. Math, science, and engineering take about twice as long as other subjects to learn.**
- 3. Suggested study procedure:**
 - A. Daily**
 - 1. Read material before class - prepare questions.**
 - 2. Take notes in class, also ask questions.**
 - 3. After class, reread material and do the homework.**
 - 4. We go over HW in class - ask questions about any difficulties.**
 - B. Before tests**
 - 1. Go over material and all worked examples at least three to five times.**
 - 2. Do extra examples on your own.**
 - 3. Do the review (you can hand this in for extra credit.)**
 - 4. Relax before tests. That is, during the evening before the test.**
 - 5. On the test, remain calm (use deep breathing and/or tighten your toes)**