Prerequisite: Math 1720 or equivalent


Professor: Neal Brand

Office: GAB 417B M 9:30-10:20, T 10-11:20, W 2:30-3:20, Th 1-2:20 and by appointment. Please use these hours to ask questions of your instructor. Do not just drop in at other times since your instructor will most likely be busy with other responsibilities. If you need to see your instructor at another time, make an appointment in advance.

Grading: Grades are based on three regular exams, homework, quizzes, a notebook and a final. The homework is worth a total of 100 points, each exam is worth 100 points, the quizzes are worth a total or 100 points, the notebook is worth 100 points, and the final is worth 200 points. This gives you a total of 800 possible points. To earn an A it is sufficient to make a total of 720 points, 640 for a B, 560 for a C, and 480 for a D. You are also required to complete the on-line course evaluation described below.

Course Evaluation: The SETE website will be open later in the semester for you to evaluate the course (dates to be announced later). You are required to complete an evaluation of the course sometime during the open period. Although your instructor will receive a list of who completed the evaluation forms before grades are turned in, he will not receive any other information about the evaluations until after the grades are turned in. Your instructor will receive no information that would link you to your specific answers or comments. The university, the mathematics department, and your instructor take your course evaluation input very seriously.

Homework: Homework will be assigned from the book and handouts. The assignments will be posted on the web. You are expected to turn in neatly written homework. If the grader has trouble reading the homework, then the homework will be returned with a zero.

Exams: The exams will be in class and most likely they will be given on February 13, March 12 and April 25. The final exam is scheduled for Wednesday May 9 at 10:30 in the classroom.

Web Page: From the UNT home page follow through the links through the College of Arts and Sciences, the Mathematics Department and Neal Brand's home page to find the Math 3000 home page. You will find homework assignments, and other information concerning this class at that site. The URL is http://www.math.unt.edu/~brand/CLASS/3000/2012Spring/3000.htm.

Extra Credit: Do not expect to be able to do extra credit work to help your grade either before or after the final exam. There will be no extra credit for this course other than perhaps an extra problem on an exam. Please do not ask for extra credit work to help your grade. Your best bet to help your grade is to do the required work at the time it is assigned.

Disabilities: It is the responsibility of students with certified disabilities to provide the instructor with appropriate documentation from the Dean of Students Office.

Cheating: No cheating will be tolerated. Cheating includes receiving help from anyone or anything that is not specifically allowed on an exam, quiz or final. For example, calculators are not allowed on exams and using one would constitute cheating. On the other hand, you are encouraged to work together on the regular homework assignments as long as everyone participates and no one just copies the answers. Anyone caught cheating will receive an F for the course. Furthermore, a letter will be sent to the appropriate dean. I expect no cheating in this class.

Last Comment: Anything on this syllabus is subject to change at the discretion of the instructor.

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Math 3000.002 Information

Spring 2012

Homework and Reading Assignments: Homework is to be turned at the beginning of class on the days indicated below. Soon after class each day the homework assignments will be posted here. You should do all the homework listed, but turn in only the problems listed in bold face type. The reading assignments are to be completed by the beginning of class on the days indicated. The class discussion will focus on the reading assignment. The schedule below is subject to change.

- **January 20**
  Read Section 13 through example 13.5

- **January 23**
  Read Section 5

- **January 25**
  Read Section 1

- **January 27**
  Page 46 5.1, 5.2, 5.3, 5.4, 5.5, 5.8
  Read Section 2 and continue reading Section 13

- **January 30**
  Continue discussion of Section 13

- **February 6**
  Continue discussion of Section 13

- **February 8**
  Continue discussion of Section 13

- **February 10**
  Finish discussion of Section 13

- **February 13**
  Exam 1

- **February 15**
  Read Section 14 through Lemma 14.4

- **February 17**
  Read Section 11
- **February 20**
  Continue discussion of Section 11

- **February 22**
  Continue discussion of Section 11

- **February 24**
  Read Section 12

- **February 27**
  Continue discussion of Section 12

- **February 29**
  Continue discussion of Section 12

- **March 2**
  Read Section 14

- **March 5**
  Continue discussion of Section 14

- **March 7**
  Continue discussion of Section 14

- **March 9**
  Continue discussion of Section 14
  Review for Exam 2

- **March 12**
  Exam 2

- **March 14**
  Read Section 6 through Example 6.8
  Read Section 7

- **March 16**
  Continue discussion of Section 7

- **March 26**
  Read Section 8 on Cardinality

- **March 28**
  Read Section 20 through Practice 20.7
  Read Section 21 through the statement of Theorem 21.1
  Definition of limit and continuous

- **March 30**
  Continue discussion of limits and continuity

- **April 2**
  Continue discussion of continuity
April 4
First goal of class: Prove Intermediate Value Theorem

April 6
Properties of continuous functions

April 9
Continue discussion of properties of continuous functions

April 11
Second goal of class: Prove Extreme Value Theorem

April 13
Read Section 10
Mathematical induction

April 16
Continue mathematical induction

April 18
Continue mathematical induction

April 20
Variations on mathematical induction

April 23
Review for Exam 3

April 25
Exam 3

April 27
Prove some standard functions are continuous

April 30
Review for final exam

May 2
Review for final exam

May 9
Final exam (10:30 in classroom)

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