

# MATH 1331: Introductory Math Analysis II (Business Calculus)

## SUMMER I 2012

**Instructor:** Josh Engwer

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**Office:** MATH 106C

**Office Hours:** MTWRF 10:00am – 11:15am (or by appointment)

**Section:** 1331-101

**Class Meets:** 8am – 9:50am, Room MATH 012

**Prerequisite:** MATH 1330/1430 or Pre-calculus

**Course Coordinator:** None

**Text:** *Applied Mathematics for the Managerial Life and Social Sciences* (TX Tech Ed.) by **Soo T. Tan**

**Calculator:** Non-CAS Scientific or Graphing Calculator. Recommended Models: **TI-36X Pro** or **TI-83+/84+**

**Other:** **WebAssign Access Code** – packaged with some new textbooks or purchased separately at bookstore or online

### TTU Core Curriculum Student Learning Outcomes for Mathematics

- Apply arithmetic, algebra, geometry and statistics to solve problems.
- Represent and evaluate basic mathematical information numerically, graphically, and symbolically.
- Use mathematical and logical reasoning to evaluate the validity of an argument.
- Interpret mathematical models such as formulas, graphs, tables and schematics, and draw inference from them.

Students graduating from Texas Tech University should be able to demonstrate the ability to apply quantitative and logical skills to solve problems. This course satisfies core curriculum math requirements.

Expected Learning Outcomes	Methods for Assessment
Explain the concepts of differential and integral calculus, including limits	Exams, Homework, Final Exam
Calculate derivatives, indefinite and definite integrals	Exams, Homework, Final Exam
Solve problems involving marginal cost, revenue, profit, diminishing returns, consumers' and producers' surplus, Lorentz curves & Gini index	Exams, Homework, Final Exam

**Final Grade Assessment:** Homework – 30%, three Midterm Exams – 30%, Final Exam – 40%

**Final Grade Scale:**      **88-100 = A,    78-87 = B,    68-77 = C,    58-67 = D,    0-57 = F**

Some minor downward adjustments may be made at the end of the semester; however, any such adjustments will be solely at the discretion of the instructor. Under no circumstances should you count on this possibility.

**Mid-term Exams:** **Closed-book, closed-notes, closed-‘everything’ except approved calculator & one 4x6 card**  
*Exam 1 – covers Ch9, Exam 2 – covers Ch10 & Regression except 10.3, Exam 3 covers Ch. 11 except 11.3*

One 4x6 formula card (front & back) will be permitted on exams -- including the final exam.

Sufficient correct work must be shown to receive full points on exam problems – answers without work earn no credit!

Curving of exam grades is at the discretion of the instructor – do not assume curving will occur!

**Homework:** All homework is done online through WebAssign: [www.webassign.net](http://www.webassign.net) . Ideally, **problems should be worked by pencil & paper** to gain experience working problems by hand and to have a good idea as to the amount of work expected to be shown when completing exam problems. WebAssign has resources (**eBook, lecture videos, hints**) that may be helpful. **It’s suggested you set the Notifications option in WebAssign to remind you of HW due dates.**

**Final Exam:** The final exam is **comprehensive**. It will be closed-‘everything’ except an approved calculator and one 4x6 card. Students are required to turn in a **Bluebook** to the instructor prior to the day of the final exam. It will be administered on **Thursday, July 5<sup>th</sup>, 8:00AM – 10:30AM in Room MATH 012.**

**Calculators:** **Non-symbolic** (Non-CAS) scientific or graphing calculators are expected to be used as some problems require their use. **Web-enabled or mobile communication devices like smart phones/tablets/laptops/... will not be allowed on exams.** Sharing of calculators during exams is not allowed. Be sure to know how to use a calculator’s regression analysis capabilities. See the instructor’s website for a list of calculators with sufficient capability.

**Attendance Policy:** Attendance will not be taken, but is expected. If you miss a class, you are responsible for finding out what announcements were made and what content was covered in lecture.

**Make-up Policy:** There are no make-ups for homework. Homework will not be accepted late. No make-up exams are given without proper documentation (e.g. doctor's note, funeral program, university field trip documentation). If you know you are going to be out in advance, please let the instructor know so arrangements can be made.

**Supplementary Notes:** The instructor has written notes to supplement the textbook available at the website. Some of the notes summarize sections of the book in one convenient page. Others clarify "muddy areas" of the material. It is highly suggested that you print the notes and refer to them while doing the homework – it should reduce the need to constantly flip through the textbook (or eBook).

**Tutoring Services:** Free tutoring is available at the **T.S.C. (MATH 106)** as well as the **P.A.S.S Learning Center (Holden Hall, Room 80)**. See the instructor's website for links to their hours of operation.

**Academic Integrity:** Students are expected to maintain the highest standards of academic integrity in this course. Students may (and are encouraged to) discuss homework problems with each other and with tutors at the math tutoring center, but you may not use any work done completely by another person or copy from a solution guide. **Cheating during an exam will not be tolerated.** Any violation will be punished as outlined in the Academic Integrity Pledge.

**Civility in the Classroom:** Students are expected to help create a classroom environment conducive to learning. This includes silencing mobile devices (e.g. phones, tablets, laptops), not talking among yourselves, not reading newspapers, etc. Refer to the **Code of Student Conduct**, available in the **Student Affairs Handbook**. **Violations of the Code of Student Conduct may result in serious sanctions such as suspension or expulsion.**

**ADA Accommodation:** Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the **Student Disability Services office in 335 West Hall or 806-742-2405.**

**Religious Holy Day Observance:** Texas House Bill 256 requires institutions of higher education to excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day. A student who intends to observe a religious holy day should make that intention known to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

**Important Dates:** (Midterm exam dates are tentative -- may vary slightly)

**06/05 – First Class Day – Review of Essential Algebra/Pre-Calculus**

**06/13 – Review for EXAM 1**

**06/14 – EXAM 1 (covers Ch9)**

**06/21 – Review for EXAM 2**

**06/22 – EXAM 2 (covers Regression & Ch10 except 10.3)**

**06/25 – LAST DAY TO DROP OR DECLARE PASS/FAIL INTENTIONS**

**06/29 – LAST DAY TO WITHDRAW FROM THE UNIVERSITY**

**07/02 – EXAM 3 (covers Ch11 except 11.3)**

**07/03 – Last Class Day (Review for FINAL EXAM)**

**07/05 – FINAL EXAM 8:00am – 10:30am Room MATH 012**

**Prohibited calculators because they are CAS-capable (i.e. symbolic math capable):**

- **Casio**
  - ClassPad 300 Series
  - ClassPad 330 Series
  
- **Hewlett-Packard**
  - HP-38g Series
  - HP-39g Series
  - HP-40g Series
  - HP-48 Series
  - HP-49 Series
  - HP-50 Series
  
- **Texas Instruments**
  - TI-89 Series
  - TI-92 Series
  - TI Voyage 200
  - TI-NSpire CAS Series
  
- **Other Mobile Devices**
  - Laptops, notebooks, netbooks
  - Cellphones, smartphones
  - Tablets
  - PDA's

**\*\* This list is not necessarily exhaustive! \*\***

**\*\* If you're unsure if your calculator is approved for exams or not, come by the instructor's office \*\***