Instructor: Paul Tokorcheck
Personal Webpage: http://orion.math.iastate.edu/ptokorch/
Course Webpage: http://bb.its.iastate.edu
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Office Location: 443 Carver Hall
Office Hours: M 12:10-1:00pm, Th 3:10-4:00pm, or by appointment.

Lecture: MTRF 11:00 – 11:50am, Carver 0002

Text: Thomas, Weir, Hass, Calculus, Twelth Edition. Please note that we use a custom version of this textbook. It would be best for you to buy it through the ISU bookstore.

Prerequisites: Satisfactory performance on placement exam, 2 years of High School Algebra, 1 year of Geometry, 1 Semester of Trigonometry or enrollment in Math 142 or Math 143.

Grading: Your grade for the course will be calculated as follows:

- Homework: 15%
- Projects: 15%
- Quizzes: 30%
- Midterm exam: 20%
- Final Exam: 20%

Exams: There will be exactly two exams, and the final exam will be cumulative. If you cannot be there on the date of an exam, you must contact me before the exam date to make other arrangements. If you no-show for an exam and attempt to contact me afterward, you should not expect to be allowed a make-up exam.

- Midterm exam: Week 7, as scheduled by the Registrar.
- Final exam: Finals Week, as scheduled by the Registrar.

Last Updated: August 18, 2014
Homework: Homework will be done via MyLabsPlus at [http://iastate.mylabsplus.com](http://iastate.mylabsplus.com). Announcements about homework assignments and due dates will be distributed via BlackBoard. You will have two attempts at each question. Any questions answered after the homework deadline will receive half-credit, regardless of circumstances.

Problems Logging In?

Known Issues with MyLabsPlus: The MyLabsPlus application is a Pearson product that is linked to your textbook material. It makes use of “cookies”, which it stores in your web browser. Depending on which browser you use, what other pages or applications you have open, and sometimes on the whim of fate, the MyLabsPlus cookies may conflict with other cookies already installed on your browser. Commonly this will result in time-out errors or a general inability to log in. To fix the problem, either try a different browser (Firefox and Chrome seem to work best) or go into your browser’s settings to delete all the stored cookies. Find out how to do this through the link below.

Getting Time-Out Errors?

Quizzes: There will be 12 quizzes given approximately weekly over the course of the semester. Each quiz will consist of two problems based on the material from the previous homework assignments. There will be no make-ups on quizzes for any reason, but your lowest two scores will be dropped.

Small Projects: On the day of each quiz you will be given a small project to work on, due the subsequent Tuesday. This will give you the opportunity to practice those things that you can’t practice with the online homework: writing, grammar, showing all of your work, and constructing a logical argument. As with the homework, late assignments will receive half-credit, regardless of circumstances.

Curves: Individual exams and quizzes will not be curved, except in the rare case of a typo or error in a question which makes the question unsolvable. For record-keeping during the semester, letter grades will be assigned based on standard 10-point intervals,

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\begin{align*}
90 - 100\% & = A, \\
80 - 89.9\% & = B, \\
70 - 79.9\% & = C, \\
60 - 69.9\% & = D, \\
\text{Lower} & = F,
\end{align*}
\]

with plusses and minuses given appropriately. At the end of the course, it is possible that final letter grades may be adjusted to reflect the final distribution of the scores in the class. Such a curve would always be in your favor, else the standard 10-point interval would apply. However, no one will know if such a curve is necessary, or what the curve would be, until all grades are in and all drops are made. Don’t bother asking if there will be a curve, because even if I knew, I wouldn’t tell you.
Policy on academic dishonesty: Don’t cheat. If you have questions about what constitutes “cheating”, or what will happen if you are caught, please review the University’s policy on academic dishonesty at http://www.public.iastate.edu/~catalog/2009-2011/geninfo/dishonesty.html

Policy on disabilities: Please address any special needs or special accommodations with me at the beginning of the semester or as soon as you become aware of your needs. Those seeking accommodations based on disabilities should obtain a Student Academic Accommodation Request (SAAR) form from the Student Disability Resource (SDR) office (phone 515-294-7220). SDR is located on the main floor of the Student Services Building, Room 1076. Please also review the Mathematics Department Student Disability Accommodation Policy at http://www.math.iastate.edu/Undergrad/AccommodationPol.html
**Course Calendar:** We will cover the following sections of your textbook, on roughly the weeks listed. This calendar is very tentative.

Week 1: Introductions. Average rates of change, limits, and the Limit Laws (2.1 – 2.4)

Week 2: **Monday Holiday.** The Squeeze Theorem, asymptotes, and limits at infinity. Continuity. (2.4 – 2.6)

Week 3: The definition of a derivative and basic rules of differentiation. (3.1 – 3.3)

Week 4: Position, velocity, and acceleration. More rules of differentiation. (3.4 – 3.6)

Week 5: Implicit derivatives. The Inverse Function Theorem. rules for logarithms and inverse trigonometric functions. (3.7 – 3.9)

Week 6: Related rates and applications. Differentials and linear approximations. Finding maximums and minimums. (3.10 – 4.1)

Week 7: The Mean Value Theorem for derivatives. (4.2) Review and Clean-up. **Exam 1.**

Week 8: Increasing, Decreasing, and Monotonic functions. Concavity and graphing. L'Hôpital’s Rule. (4.3 – 4.5)

Week 9: Applications and word problems. The Antiderivative and its properties. (4.6, 4.8)

Week 10: Area and Riemann Sums. The definition of the Integral. (5.1 – 5.3)

Week 11: The Fundamental Theorem of Calculus. The Mean Value Theorem for Integrals. **u-substitutions.** (5.4 – 5.5)

Week 12: Derivatives and Integrals of Inverse Trigonometric Functions. Area between two curves. The functions \( f(x) = e^x \) and \( f(x) = \ln x \). (3.1, 5.5, 5.6, 7.1)

Week 13: General exponential and logarithmic functions. Exponential growth and decay. Separable Differential Equations. (7.1 – 7.2)

Week 14: **Thanksgiving Break.**

Week 15: Relative Rates of Growth. Hyperbolic functions. (7.3 – 7.4)

Week 16: **Dead Week.** Review and clean-up.

Week 17: **Finals Week.** Exams scheduled by the Registrar.