

# Math 170 C      Calculus and Analytic Geometry I      Fall 2009

**Class Meeting:** MWF 10:20 - 11:30 PPHAC 233

**Instructor:** Nathan Shank

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**Office Location:** PPHAC 219

**Office Hours:** Wednesday: 1:00-2:00, Thursday: 9:30-10:30, 1:45-3:45

**Text:** *Calculus: Early Transcendentals*, Stewart, Sixth Edition. We will cover most of the first 5 chapters of the course. Math 171 (Calc. II) covers chapters 6-12 of the same text.

**Calculators:** A graphing calculator will also be needed for this course. A TI-83 (plus) is recommended by the department. If a student wishes to use another comparable graphing calculator, it is their responsibility to learn how to use it.

**Course Goals:** In this course you will be learning the mathematical language of change. In particular you will learn

- differentiation and integration methods and the concepts behind them,
- how to work with functions graphically, algebraically, numerically, and verbally,
- how to apply the methods of calculus to real world problems, and
- how to discuss and present solutions to mathematical problems in written and oral form.

**Course Topics:** This is the first course in a sequence of calculus courses. No background in calculus is expected. The course will cover the first 5 chapters of the textbook. Topics include functions, models, continuity, limits, rates of change, derivatives, differentiation rules, applications and integration.

## **Assignments/Assessment:**

- **Homework:** As you know math is not a spectator sport. You need to practice what you learn. You are expected to spend **at least 8 hours** outside of class working on calculus. Each homework assignment will have two parts: 1) turn in problems and 2) practice problems. The turn in problems will be collected at the beginning of every class. Any collected work can be graded on any combination of completeness and correctness. First attempt at homework should be done on your own. If you still need assistance you may ask for a hint from a classmate or work on the problem together. However acquiring an entire solution from a classmate is not acceptable. Homework is to be written up individually. Any collaboration must be properly documented. If two or more homework sets look similar, no points will be

awarded for the entire homework set (with no warning). Please see the section on academic honesty policy for more information. You are always welcome to come to office hours to see the instructor. Late homework will not be accepted for a grade. Late homework is anything turned in **after** the start of class. We will have approximately 35 homework/quiz grades at the end of the semester. I understand that there will be days that you can not turn in your homework on time, so the lowest 4 quiz/homework grades will be dropped when computing your final grade. In preparing your homework, you must following the following guidelines. Failure to do so will result in a deduction in points.

- Homework should be neat, legible and on clean paper. Please DO NOT include your scratch paper. Your final version of your homework should NOT be your first draft.
  - You should present your homework in the order they are assigned. It should be clear where one problem ends and the next begins.
  - You must show your work. Just supplying an answer will receive no credit. You are grading on your understanding of the tools to SOLVE a problem, not the final answer.
  - Your name and date should be on the top of the first page. If there are multiple pages, they should be stapled.
  - Homework is to be turned in at the beginning of class on the due date. No late homework will be accepted for a grade.
- Quiz: Quizzes may be given at any time. Quizzes can not be made up. Expect a quiz every day.
  - Proficiency Exams: In addition to the regular exams, there will be two proficiency exams: a *Limit Proficiency* and a *Derivative Proficiency*. When these are given in class, your score will either be 0% or 80-100%. If you receive a 0%, you will retake the exam as often as you want within 4 weeks of the original exam. If you score at least 80% on a retake of the exam, I will change the 0% to an 80%. The only way to get above a 80% is to do well on the first in class opportunity. The Limit Proficiency exam will be on Friday, September 25, and retakes may be done through Friday, October 23. The Derivative Proficiency exam will be on Friday, October 30, and retakes may be done through Friday, December 2.
  - Culture Points: Mathematics is everywhere. Culture points are designed for you to experience the breath of math. Please see the handout on Culture Points for more details.
  - Labs: There will be several group lab projects throughout the semester. Details will be provided when the first lab project is assigned.
  - Exams: You will have 2 exams and a cumulative final exam. These exams can not be made up except under extreme circumstances with appropriate documentation,

for example a doctors note or an accident report. If a student is going to miss an exam for an extenuating circumstance, they must notify the instructor at least one full week before the exam date. If a make up exam is approved, an individual exam will be made, differently from the class exam, and administered on the next available day. The two exams are tentatively scheduled for Wednesday, October 7, and Monday, November 23. The final exam is scheduled for Thursday, December 17, 1:30 - 4:30.

**Grading:** Final determination of your course grade is subject to the discretion of the professor of the course. You are responsible to keep track of your own grade. Grades will be computed as follows:

Homework, Quiz	20%
Limit Proficiency	5%
Derivative Proficiency	10%
Culture Points	5%
Lab	10%
Exams	30% total
Final Exam	20%

**Class Structure:** Class will consist of lecture, group work, individual work, and problem sessions. Please come to class prepared with you text, notes, and calculator everyday. Please be prepared to participate in class. Class will start promptly at 10:20, and class will not end prior to 11:30. Please turn off your cell phones prior to the start of class.

**Attendance:** Attendance will be taken everyday. There is a very strong correlation between attendance and grades. In order to understand the material, you need to be present in class. Group work also requires everyone to participate. Any student missing more than three classes will lose two percentage points off their final grade for each additional absence. Remember that no late homework or quizzes are accepted.

**Academic Honesty:** For graded homework assignments and projects, you may use your class notes and any books or library sources except a solutions manual. Any resources you use must be documented at the top of the homework assignment. As an example if you get help from the Tutor Center for problem 4 only, please write "Help with problem 4 from Tutor Center". No points will be deducted for honestly acknowledging help. However if you do not document any appropriate resource this is considered cheating.

The College academic honesty policy appears in your Student Handbook; you are expected to be familiar with it. The Academic Honesty Policy Guidelines specific to mathematics classes are reiterated at the end of the syllabus. They apply to work done outside of class as well as to in-class quizzes and tests. Please read them carefully. If you are unsure about the propriety of a particular procedure or approach, please consult with your instructor before continuing with the assignment.

**Special Accommodations:** Students with disabilities who believe that they may need accommodations in their class are encouraged to contact the Learning Services Office as

soon as possible to enhance the likelihood that such accommodations are implemented in a timely fashion.

### **Academic Honesty Policy Guidelines Mathematics Courses**

The Department of Mathematics and Computer Science supports and is governed by the Academic Honesty Policy of Moravian College as stated in the Moravian College Students Handbook. The following statements will help clarify the policies of members of the Mathematics faculty.

In all homework assignments which are to be graded, you may use your class notes and any books or library sources. When you use the ideas or thought of others, however, you must acknowledge the source. For graded homework assignments, you may not use a solution manual or the help, orally or in written form, of an individual other than your instructor. If you receive help from anyone other than your instructor or if you fail to reference your sources you will be violating the Academic Honesty Policy of Moravian College. For homework which is not to be graded, if you choose, you may work with your fellow students. You are responsible for understanding and being able to explain the solution of all assigned problems, both graded and ungraded.

All in-class or take home tests and quizzes are to be completed by you alone without the aid of books, study sheets or formula sheets unless specifically allowed by your instructor for a particular test.

#### **Reminders:**

- **Office Hours:** If you are having trouble or are just bored, please come to office hours. We can not cover all the material in depth in 70 minutes. Sometimes hearing an explanation another way is all you need. Be a “regular”.
- **Homework:** You must do your homework to succeed in class. You should work on calculus EVERY NIGHT. Set a schedule and stick to it and you will succeed.
- **Other Students:** Get to know the other students in class. This will help if you are absent and will help with understanding the material. Set up times during the week outside of class to meet to work through homework and labs.
- **Tutors:** Take advantage of the Math Tutors in PPHAC 238 in the evening. A schedule will be announced around the second week of classes. Often a student can explain things much clearer than an instructor.