Math 171 B Analytic Geometry and Calculus II   **Spring 2008**
PPHAC 113
M W F   11:25 a. m. – 12:35 p.m.

Instructor: Alicia Sevilla
Office: PPHAC 217
Telephone: 610-861-1573 (office), 610-867-1787 (home);
E-mail: means01@moravian.edu;
Office hours: Monday and Wednesday, 1:45 to 2:45 p.m.; Thursday 3:00 to 4:00 p.m.;
Friday, 2:00 to 3:00 p.m., and by appointment.

Course Prerequisites: This course is a continuation of the study of differential and integral
calculus, and has Math 170, Analytic Geometry and Calculus I, or its equivalent as a
prerequisite.

Textbook : *Calculus Early Transcendentals*, sixth edition, or *Single Variable Calculus Early
Transcendentals*, sixth edition, by James Stewart, Thomson Brooks/Cole, 2008.

Course Goals: In this course you will continue to learn the rudiments of the mathematical
language of *change*. In particular you will build on the differentiation methods and concepts and
the concepts of integration studied in Analytic Geometry and Calculus I. You will continue to
work with functions graphically, algebraically and numerically. You will also continue to
develop skills in applying these methods to real world problems and discussing and presenting
solutions to mathematical problems in written and oral form. In addition, you will learn to use
the computer program *Maple* for some calculus computations.

Course Content: The topics to be covered are:
> Review of the definite integral and Fundamental Theorem of Calculus
> Applications of integration
> Techniques of integration
> Introduction to differential equations
> Parametric equations and polar coordinates
> Introduction to infinite sequences and series

We will briefly review chapter 5 and cover most sections of chapters 6, 7, 8, and selected
sections of chapters 9, 10, and 11.

Coursework: Daily reading and problem assignments will be given; students are expected to
come to class prepared to explain problem solutions and ask questions on the material assigned
for that day. Some homework assignments will be collected and graded. **All work that is to be
collected and graded is to be done individually, unless otherwise noted by the instructor**.
Students are encouraged to work together on ungraded homework.

Quizzes and Exams: There will be frequent announced quizzes, three in-class exams and a
comprehensive final exam. The dates of the two in-class exams are:
> **Monday, February 11**
> **Friday, March 14**
> **Wednesday, April 16**

Computer Program and Calculators: Some class time will be devoted to computer activities using the program *Maple*. Most of these activities as well as occasional assignments that use *Maple* will be collected and graded. You are expected to bring a graphing calculator to class. Graphing calculators will be used frequently in class to illustrate concepts and to solve problems. There will be some activities and quizzes that will be "no technology". (You will be told in advance when a quiz will be "no technology".) Unless otherwise directed, you are encouraged to use Maple and/or a graphing calculator as a resource for homework.

Grading: Course grade will be based on class participation (10%), quizzes and graded assignments (20%), in-class exams (15% each) and a comprehensive final exam (25%).

Attendance: Class attendance is required. Students are responsible for all work covered in class and all assignments, even if absent from class. If a student must miss more than one class due to illness or emergency, the instructor should be notified. In-class exams must be taken at the announced time; make-up exams will be given only in case of extreme emergency or serious illness. There will be no make-up quizzes.

Help: Students are encouraged to see Dr. Sevilla during office hours or to arrange an appointment for extra help when needed. Student tutors are available for assistance Monday through Thursday evenings every week. There is no charge for this help. Tutors may not help with graded assignments.

Note: *This syllabus is a guideline for the course. It may be necessary to make changes during the semester. I will announce any changes in class.*

The **Academic Honesty Policy Guidelines,** stated below, are to be followed. Please read them carefully.

ACADEMIC HONESTY POLICY GUIDELINES
MATHEMATICS COURSES

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

In all homework assignments that are to be graded, you may use your class notes and any books or library sources. When you use the ideas or thoughts of others, however, you <u>must</u> 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 that 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 solutions 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 you instructor for a particular test.