

## HOCKING COLLEGE COURSE OUTLINE

Course Number: Math 163B

Course Name: Introduction to Calculus II

Credit Hours: 4

Class Hours: 4

Date Prepared: Fall 2009

Prepared By: Charlotte Hart

To Be Updated:

Approved By:

Prerequisites: C- or better in Math 112 or C- or better in Math 113

### Course Description

Indefinite integrals, definite integrals, techniques of integration with applications, functions of several variables, partial derivatives, and optimization of functions of several variables will be covered in this course. This course includes and evaluates the Success Skills “Maintains Professional Skills and Attitudes”, D10, and “Demonstrates Math Skills”, B1-B7.

### Course Materials

1. Textbook: CALCULUS AND ITS APPLICATIONS, 9<sup>th</sup> edition,  
Textbook with My Mathlab access code package ISBN: 9780321550699
2. Scientific or Graphing Calculator
3. Computer with high-speed internet access

### Course Description

Indefinite integrals using formulas and techniques of integration, definite integrals and the Fundamental Theorem of Calculus, finding areas using integrals, and business applications using integrals are covered in this course. Functions of several variables, partial derivatives, and optimization of functions of several variables including the method of Lagrange multipliers are also covered. This course includes and evaluates the Success Skills “Maintains Professional Skills and Attitudes”, D10, and “Demonstrates Math Skills”, B1-B7.

### Course Outcomes

Upon completion of Business Calculus II the learner is able to do the following:

1. Calculate antiderivatives using indefinite integrals
2. Evaluate indefinite integrals using formulas
3. Use techniques of integration including substitution, and integration by parts
4. Use the Fundamental Theorem of Calculus to evaluate indefinite integrals
5. Use definite integrals to determine areas under a curve and areas between curves
5. Solve business applications using integration

6. Evaluate functions of several variables
7. Find partial derivatives
8. Optimize functions of several variables including the method of Lagrange multipliers.

Topical Outline:

Topic#1	Introduction to integration and area (chapter 4)
Topic #2	Techniques of Integration (chapter 4)
Topic #3	Applications of integration (chapter 5)
Topic #4	Functions of several variables ( chapter 6)

Module/unit learning objectives

Unit 1 Learner will use techniques of integration to solve a variety of problems.

Unit 2 Learner will apply techniques of integration to solve more involved integrals.

Unit 3 Learner will use techniques learned in units 1 and 2 to solve a variety of applications in business.

Unit 4 Learner will evaluate functions of several variables, differentiate functions of several variables, and integrate functions of several variables.

Student Insurance/Coverage

Hocking College insurance does not cover a student in cases of accident or illness. Students are responsible for providing their own health and accident insurance. The Hocking College Health Center provides information on a student health insurance plan. Please see the Health Center (JL 241) for information on costs, coverage and how to enroll in the plan.

Disability Notice

If you have been diagnosed with a disability that impacts your academic success, please immediately contact the Access Center, Office of Disability Services in JL 249 regarding accommodations.

**HOCKING COLLEGE**  
**EVALUATION OF THE LEARNER**  
**Math 163B Online – Business Calculus II**  
**4 Credit Hours**

**COURSE NO.** Math 163B Online  
**INSTRUCTOR** Charlotte Hart

**COURSE NAME** Business Calculus II  
**DATE PREPARED** Fall 2009

Dear Math 163B Online Student:

I would like to begin by welcoming you to Math 163B online! As with any online course, Math 163B online is quite different than the traditional Math 163B classroom. With this in mind, I would like to begin by sharing with you some very important keys to success.

1. **Get familiar with your computer.** As a distance learner, you need to be comfortable using a computer on your own. This means that you know how to do the following:

- ▪ Turn your computer on and off
- ▪ Identify and use the keys on your keyboard
- ▪ Send an e-mail
- ▪ Navigate or “surf” the Internet
- ▪ Close windows and move them around
- ▪ Use your mouse (click, double-click, drag, drop, select)
- ▪ Adjust the sound on your computer

2. **Schedule and manage your time for focused study.** Having good time management skills is extremely important and being a distance learner makes these skills even more essential. You are ultimately responsible for how well you manage your time spent. No matter what your current time constraints may be, the **key to success in learning math is studying concepts by solving related problems.** This takes time. In traditional lecture courses, you go to class and do homework. A course grade often reflects the amount of time spent studying and doing homework correctly. Time is even more important in a distance-learning course, because you are working independently, and it is your responsibility to contact your instructor when you need help or have questions. Different individuals will need to spend differing amounts of time with this material.

3. **Communicate with your instructor frequently.** Before your course begins, you should contact your instructor via e-mail. Explore the web site.

You need to be an active learner. If concepts are unclear, ask for help. Do not wait for the instructor to contact you. Your instructor is always your most valuable resource in helping you do well in your course. Frequent communication is the way to ensure success. Write down your instructor’s contact information and keep it handy.

4. **Pace yourself.** Be aware of what areas you need to spend the most time on in order to understand the concepts. The syllabus is setting the pace required for you to succeed in your course. If you find yourself falling behind, contact your instructor for some strategies on how to increase your pace and still do well in the course.

If you are working ahead of the syllabus and still doing well, that is terrific! Be careful not to be careless with calculations and make simple errors due to speed. **Keep in mind**

that it is better to work daily on math than to spend longer periods of time several times a week. If you follow the syllabus and the deadlines set within the syllabus and do well, you will finish the course.

5. **Do homework.** Homework is a mandatory (and significant) part of this course. Be organized and do all of your problems!

6. **Ask for help.** Since you do not see your instructor in a class several times a week, you always need to be ready to ask for help when you need it. As a distance learner, it is even more important to do this. Do not be hesitant to do so.

7. **Be a proactive learner.** Some of you may have heard the expression, “Math is not a spectator sport.” It’s true. You need to be actively involved in your course. The responsibility for doing well rests primarily on you. Be assertive in finding out necessary information, asking for help, and communicating with your instructor. You will increase your chances of success in the course by being a proactive learner. Become a player in math, not a spectator.

8. **Follow your syllabus.** Pay attention to the dates listed on each assignment on your syllabus. Make sure that you budget enough time to complete these assignments by the deadlines given.

With this in mind, let’s begin with the syllabus and the course requirements.

## **SPECIFIC FACTORS**

### **1. CourseCompass System HOMEWORK EXERCISES**

This course uses the CourseCompass System for instruction, homework, and assessment. For each new lesson assigned, you should:

1. Read the associated lesson in the textbook, working through all example problems and/or suggested exercise problems using pencil and paper
2. Work through the **homework** mode of the CourseCompass System software

**Each unit of homework assignments completed is worth 5% of the final course grade (20% total).**

### **2. QUIZZES/TESTS**

Unit Tests: There are four tests, which are to be completed upon completion of the associated homework assignments. As with the homework assignments, the tests will be administered through the CourseCompass System. Tests are available by selecting **Take a Test**. Each test will be similar to homework exercises.

You will have two opportunities to make up a chapter test if you are not satisfied with your score. If your make-up score is higher than your original score, the final score taken will be the average of the scores.

**Each unit test is worth 15% of the final course grade (60% total).**

Final Exam: There will be one comprehensive final exam, covering all of the content in this course. Like the unit tests, this will be administered by accessing the **Take a Test** function of the CourseCompass System.

**The final exam is worth 15% of the final course grade.**

Note: All tests are closed-notes and book and must be administered using the CourseCompass System. You will be blocked from other areas of the CourseCompass System during testing. You must complete the test in one sitting. There is a 180-minute time limit for every test. If you submit an incomplete test, you must contact your instructor to be allowed access to these areas again.

It is my goal to respond to all questions or comments on the discussion board within two school days.

**Communications are worth 5% of the final course grade.**

Please note that it is a requirement of this course that you post comments to the discussion board. You will be asked to post comments on each unit before taking the test for that unit. Please note that no student will be given the five points for communication without satisfying this requirement.

#### **4. EXTRA PROJECTS**

No extra credit is available in this course.

#### **5. GRADING SCALE**

A	100-92	A-	90-91	B+	88-89	B	82-8
C+	78-79	C	72-77	C-	70-71	D+	68-6
D	62-67	D-	60-61	F	59 or below	PR	

**\*You have eleven weeks to complete this course. However, you may be eligible for an additional seven week extension if you have successfully completed the first three tests by week eleven.**

#### **6. POLICY REGARDING HONESTY**

Honesty and integrity are major elements in professional behavior and are expected of each student. This is part of the Success Skill “Maintains a Code of Ethics.” All work is assumed to be your own unless special permission is granted from the instructor or sources are appropriately cited. It is expected that you will be honest in all endeavors related to the completion of this course, just as you must be in all activities at work.

The definition of academic misconduct that is provided in the Hocking College Student Guide applies to this course and all other courses that you are taking at the College. It is a Code I Offense:

Academic Misconduct refers to dishonesty in examination (cheating); presenting the ideas or writing of someone else's as one's own (plagiarism); knowingly furnishing false information to the college by forgery, alteration, or misuse of college documents, records or identification. Academic dishonesty includes but is not limited to:

1. Permitting another student to plagiarize or cheat from your work,
2. Submitting an academic exercise, written work, project, or computer program that has been prepared totally or in part by another,
3. Improperly acquiring knowledge of the contents of an exam,
4. Using unauthorized material during an exam, to include notes, information, calculators, or other electronic devices or programs during exams or for assignments from which they have been expressly or implicitly prohibited,
5. Submitting the same paper in two different courses without knowledge and consent of all faculty members involved,
6. Obtaining academic material through stealing or other unauthorized means,
7. Falsification of research findings and methodology.

Academic Misconduct is unacceptable behavior in all Hocking College courses. A student observed or found to be engaged in academic misconduct on a test or assignment in this course will receive a grade of zero. A written report of the incident, signed by the instructor and the student, will be submitted to the Campus Judiciaries Office. The Office of Campus Judiciaries will conduct a judicial proceeding with the accused student, resulting in a finding of “In Violation” or “Not In Violation” of the Hocking College Code of Conduct. The outcome of the judicial process will not be used to modify or validate the specific consequence as decided by the individual faculty/program or academic unit, but may be used to determine future Judicial consequences, in demonstrating a pattern of behavior on the part of the student.

Further information pertaining to Academic Misconduct can be found by contacting the Office of Campus Judiciaries, Oakley 210, or by referring to the Student Code of Conduct found on the Hocking College website ([www.hocking.edu](http://www.hocking.edu)).

## **7. FINAL GRADE CALCULATION**

The final course grade is weighted as follows:

CourseCompass System Homework Exercises	4 @ 5% = 20%
Communications/Discussion Board	5 @ 1% = 5%
CourseCompass System Chapter Web Tests	4 @ 15% = 60%
CourseCompass System Final Exam Web Test	1 @ 15% = 15%
<u>Total</u>	
<hr/>	
100% maximum	

## **8. ACADEMIC GRADE APPEAL PROCESS**

Academic grade appeals consist of complaints from students concerning final grades given. The Appeals Process is available only for final grades not for an individually graded assignment. When a student believes that his or her academic performance has been unfairly or improperly graded, the first recourse will be communication with the faculty member in an attempt to resolve the complaint. Grade appeals will be considered only if grading was based on something other than performance, if different standards were used for different students, or if the grading was a departure from the instructor's previously stated final grade calculations. If the informal attempt at resolving the complaint between student and faculty is unsuccessful, a formal appeal will begin. A student appeal of a final grade must be formally initiated within one term of the grade being posted. Students should understand that the burden of proof would be theirs to demonstrate. The steps for the grade appeal process are available in each academic unit office and online in the current Student Code of Conduct found under the current student link on the Hocking College website.

## **9. STUDENT GRIEVANCE DUE PROCESS PROCEDURES**

Due process procedures for the College are located in the current Student Code of Conduct listed as Hocking College Student Grievance Procedures available online under the current student link on the Hocking College website.

## **11. CONTACT INFORMATION**

E-mail (preferred): hart\_c@hocking.edu

Phone/Voicemail: 740-753-7209

Fax: 740-753-6131

Mail:

Charlotte Hart  
Arts & Sciences  
3301 Hocking Parkway  
Nelsonville, OH 45764

## **13. OTHER ON-CAMPUS HELP**

### **Online learning technical support:**

#### **Online Learning Coordinator**

Joni Tornwall  
(740) 753-7116

#### **Online Learning Specialist**

Wes Crow  
(740) 753-7115

[tornwall\\_j@hocking.edu](mailto:tornwall_j@hocking.edu)

**Online Learning/Arts Sciences  
Technician**

David North  
(740) 753-6509  
[north1\\_d@hocking.edu](mailto:north1_d@hocking.edu)

[crow\\_w@hocking.edu](mailto:crow_w@hocking.edu)

**Online Learning**

[onlinelearning@hocking.edu](mailto:onlinelearning@hocking.edu)  
Office Room Number is JL256

MATH PACE LAB (JL-363): The Math PACE lab is available on campus for math tutoring and is staffed with Hocking College Instructors and trained tutors.

## 14. INSTALLATION INSTRUCTIONS FOR CourseCompass System

### Student Registration

**CourseCompass** is a website that helps you with your study skills, allows you to do homework, take tests, view videos and more! Access to CourseCompass is included with the purchase of a **new** textbook (you can also purchase a standalone access kit in the bookstore or online, but you need a valid Course ID from your instructor). For more information about CourseCompass, including system requirements, go to [www.coursecompass.com](http://www.coursecompass.com), and click on Features, Getting Started, FAQs, or Support.

#### To register:

1. Go to [www.coursecompass.com](http://www.coursecompass.com).
2. Click the **Register** button below Students.
3. Make sure you have everything you need to register:
  - A Student Access Code
  - A valid e-mail address
  - Course ID:** hart97522
  - Your school zip code: 45764
4. Click **Next**.
5. Leave **No, I am a New User** selected. (**Note:** If you have previously registered for an online product published by Addison Wesley, Allyn & Bacon, Benjamin Cummings, Longman, or Prentice Hall, you may already have a Pearson Education account. Click **Yes, Look Me Up**, and then enter your login name and password).
6. Enter the **Access Code** and your **School Zip or Postal Code** (**Note:** the access code is located in Student Access Kit ).
7. Select your **School Country** from the drop-down list.
8. Click **Next**.
9. Enter the **Course ID**.
10. Click **Next**.
11. Enter your **First Name, Last Name, and E-mail Address**.
12. Select your **School Name** from the drop-down list.
13. Create a **Login Name** and **Password**, then re-type your password in the required field.
14. Select a security question from the drop-down list, then enter the answer.
15. Click the respective links to review the **license agreement** and the **privacy policy**.
16. Click **Next**.
17. Click the **print a copy** link to get a record of your login name and password (also, a confirmation email is sent).
18. Click the **Log In Now** button below CourseCompass.
19. Click Favorites, then select Add to Favorites to bookmark the CourseCompass website.
20. Log in to CourseCompass using the login name and password you just created.
21. In the **Courses** area, click on the Course name to access required course materials.

### Inside My CourseCompass

Use the links in the Courses and Announcements area to check for news from your professor, view the course syllabus, and to access textbook content. For Customer Technical Support, call Toll Free 1-800-677-6337, Monday through Friday

## 9 AM – 6 PM EST. **Getting started with CourseCompass**

This book includes topics to help you become familiar with CourseCompass:

- [CourseCompass overview](#)
- [Exploring the My CourseCompass page](#)
- [Using the Courses area](#)
- [Using the Announcements area](#)
- [Using the Resources area](#)
- [Using the Need Help?? area](#)
- [Editing personal information](#)
- [Doing research online](#)
- [Enrolling in another course](#)
- [Using online Help](#)
- [Contacting Customer Technical Support](#)
- [Logging out](#)

### **16. BEFORE YOU BEGIN THIS COURSE**

You must complete the Online Course Agreement.

If you have any further questions, please do not hesitate to contact me. I wish you an enjoyable quarter! Good luck!

Sincerely,  
Charlotte Hart