



**Course Syllabus  
Spring Semester 2007**

**School of Arts and Sciences**

**Course Name:** Modern Business Calculus  
**Course Number:** MTH-126  
**Credits:** 3 Hours  
**Contact Hours:** 3 Lecture  
**Instructor's Name:** Jamal Salahat  
**Office Hours & Location:** MW 9-10, TR 10-12 @ MS/157 (via MS/141)  
**Campus Phone:** 567-661-7781  
**Campus E-mail:** jamal\_salahat@owens.edu

**Catalog Description:** The topics to be covered are functions, limits, continuity, rules and applications of differentiation, definite and indefinite integrals. Applications to business are stressed.

**Prerequisites/Co-Requisites:** MTH 125.

**Current Textbook and Equipment :**

- 1) **Text:** Lial, Greenwell, Ritchey: *Finite Mathematics and Calculus with applications*, Seventh Edition, Pearson Education, Inc. 2005.
- 2) **Calculator:** The Texas Instrument TI-83 is required and should be brought to every class meeting.

**General Information**

For information on FERPA, Cheating and Plagiarism, Assessment of Student Learning Outcomes and Student Code of Conduct, please refer to the appropriate section of the current Owens Community College Catalog online.

**Course Outcomes:**

The basic objective is to provide the student with a solid business application-related background in calculus.

**Student Learning Outcomes:**

The student shall be able to:

1. Evaluate limits of various functions.
2. Determine the derivative of various functions both by definition and by applying the rules of differentiation.
3. Apply differentiation to velocity and other rates of change.
4. Use the derivative for curve sketching, and related rates.
5. Find a derivative by implicit differentiation.
6. Solve optimization problems.
7. Solve related rate problems pertaining to business and economics.
8. Evaluate definite and indefinite integrals.
9. Find areas of regions under and between curves.
10. Compute volumes, average value of a function, continuous money flow, and consumer and producer surplus.
11. Work with improper integrals.
12. Solve elementary differential equations.
13. Determine the least square equation for given data.

**Grading Procedure:**

The student's grade will be based on four exams, attendance, and a comprehensive final exam as follows:

Four Exams: (100 points each) -----	400
Attendance: -----	30
Final Exam-----	120
	Total 550 points ( 100 %)

The following grading scale is used to evaluate grade

A	90-100
B	80-89
C	70-79
D	60-69
F	59 and below

\*\*\*\*The comprehensive final exam is mandatory. If you do not take the final exam a grade of F will be given

### **Specific Course Rules:**

**1) Make-up Test Policy :**There will be no make-up given for tests for any reason. If you are absent with a valid reason for one test, the final exam grade will replace the missed test.

**2) Class Participation :**Is welcomed and encouraged

**3) Cell Phone Usage :** Is not allowed in class. Phones can not replace calculators.

**4) Tape Recording in Class :** Is allowed only with permission.

### **5) Attendance:**

**Learning Math is so much easier and flows much better when you attend regularly (everyday). Attendance will be taken daily. (This is a good way for your instructor to learn names.) Please contact your instructor if there is a major attendance problem. ( One point is awarded for every class meeting you attend up to 31 points and that is part of the 550 points total).**

**Disability Services:** If you have a disability or acquire one, you may be entitled to receive individualized services and/or accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to apply for services, please contact the Disability Services Office.

### **ASSESSMENT**

**Please refer to page 13 of the 2004-2005 College Catalog for the college statement on the Assessment of Student Learning.**

### **Resources:**

Open math lab in College Hall CH/156 E  
Free of charge. For hours, please call 567-661-7409

Tentative Calendar for MTH-126  
 Tuesday & Thursday 12:00-1:15 PM

Week	Tuesday	Thursday
1	No School	Intro. & Review
2	11.1	11.2
3	11.3	11.4
4	Test 1 (Jan. 30)	12.1
5	12.2	12.3
6	12.4	12.5
7	Test 2 (Feb. 20)	13.1
8	13.2	13.3
9	13.4	Test 3 (March 8)
10	SPRING	BREAK
11	14.1	14.2
12	14.3	14.4
13	14.5	Test 4 (April 5)
14	15.1	15.2
15	15.4	15.5
16	15.6	16.1
17	16.3	Review
18	Final Exam	

\*\* Final Exam: Tuesday, May 8, 2007 from 12:15-2:00 PM

\*\*Disclaimer: "The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course."