

## COURSE INFORMATION

### **Lecture:**

MATH 1750–017: TR 5:30 pm–7:10 pm, SM 2040

**Instructor:** Dibyajyoti Deb

Office: UH 2030C

Office Hours: **MF** 2:00 pm– 3:30 pm; **TR** 4:00 pm– 5:00 pm

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Temporary Course Webpage: <http://www.math.uky.edu/~ddeb/Teaching.html> (Click on the appropriate course link).

**Textbook:** *Calculus for Biology and Medicine*, Third Edition, by Claudia Neuhauser, and *Schaum's Outlines Trigonometry*, Fourth Edition, by Moyer and Ayres.

**Prerequisites:** Passing grade in Math 1320 or ACT Math of 22 or higher or score of College Algebra placement Test of 12 or higher.

**Calculator:** A graphing calculator is allowed on all quizzes and exams.

**Tutoring:** Mathematics tutoring is provided by the Learning Enhancement Center (LEC) and Mathematics Learning and Resource Center (MLRC) jointly. It is located in the basement of Carlson Library-phone ext. 2176. LEC tutoring hours: M/R 9am–8pm, T/W 9am–9pm, F 9am–2pm. Link to LEC website:

<http://www.utoledo.edu/utlc/lec/tutoring/index.html>

### **Final Exam**

MATH 1750–0017: December 14, Tuesday, 5:00 pm – 7:00 pm

## Grading and Evaluation

### **Exams**

There are 3 in class exams (each 100 points) and one final exam (200 points). No make-up exams will be given. If one exam is missed, the final exam will be worth 300 points. The University of Toledo Missed Class policy will be followed.

### **Quizzes**

Short quizzes of 5–15 minutes will be given in class based on the homework and the suggested practice problems. There will be 7 quizzes given during the semester from which only the best 5 will count towards your grade. Missing two or scoring low on them will not count against you, therefore there will be no make-up quizzes. Each quiz is out of 30 points, and in total quizzes are worth 150 points.

### **Homework**

Homework will be assigned for each lecture, and is collected every one or two weeks in the classroom on the due dates. There will be 7 homework assignments collected from which only the best 5 will count towards your grade. Missing two or scoring low on them will not count against you, therefore late homework will not be accepted. Homework set is out of 30 points, and in total the five homework sets worth 150 points. Grades are based on completion, correctness of selected problems, and whether a student is following guidelines for assignments.

## Guidelines for Assignment

1. Put the following the first page of each assignment:
  - Your name
  - The assignment number
  - The assignment problems
2. Use  $8 \frac{1}{2} \times 11$  loose leaf paper (no spiral edges)
3. Use pencil only.
4. Show the problem number, show the problem and **your work**.
5. Staple your assignments together.
6. Your work must be neat and legible.

### Suggested practice problems

Suggested practice problems will be assigned together with the homework problems. They are not collected for grading and will not be counted toward the final grade either. These problems are strongly recommended for students who are pursuing a higher grade in the class.

### Extra Credits

There will be 3 extra credit homework assignments during the semester, in total worth 30 points.

### Grading

The final grade will be based on 800 points:

In class tests ( $100 \times 3 = 300$ )

final exam (200)

quizzes ( $30 \times 5 = 150$ )

homework ( $30 \times 5 = 150$ )

The cutoff scores are: 720 (A), 640 (B), 560 (C), and 480 (D).

### Tentative Course Schedule

Week 1, Review of functions, section 1.1, 1.2, Schaum's 1.1–1.5;

Week 2, Foundations of Trigonometry, 2.1–2.9, 3.1–3.7;

Week 3, Graphing Trigonometric Functions, Schaum's 6.1–6.4, 7.1–7.6;

Week 4, Trigonometric Identities, Schaum's 8.1–8.3, 9.1–9.4;

Week 5, Trigonometric Equations, Schaum's 14.1–14.2;

Week 6, Limits, Section 3.1, 3.2;

Week 7, Limits of Trig Functions, Continuity, Section 3.3, 3.4, 3.5;

Week 8, Definition of Derivative, Section 4.1, 4.2;

Week 9, Rules of Differentiation, Section 4.2;

Week 10, More methods and Derivative of Trig Functions, Section 4.3, 4.4, 4.5;

Week 11, Derivatives Exponential Functions and Inverse Functions, Section 4.6, 4.7;

Week 12, Approximation, Section 4.8;

Week 13, Extrema, Section 5.1;

Week 14, Monotonicity, Convexity, Curve Sketching, Section 5.2, 5.3;

Week 15, More Curve Sketching, Optimization, L'Hospital's rule, 5.3, 5.4, 5.5;

Week 16, Review

## Tentative Homework and Quiz Schedule

Homework 1/Quiz 1, 9/2, R, {Schaum's chapter 1, 2, 3}  
Homework 2/Quiz 2, 9/9, R, {Schaum's Chapter 6, 7}  
Homework 3/Quiz 3, 9/30, R, {Calculus 3.1, 3.2}  
Homework 4/Quiz 4, 10/7, R, {3.3, 3.4, 3.5}  
Homework 5/Quiz 5, 11/2, T, {4.3, 4.4, 4.5}  
Homework 6/Quiz 6, 11/9, T, {4.6, 4.7}  
Homework 7/Quiz 7, 12/2, R, {5.2, 5.3, 5.4}  
Extra Credit Homework 1, 9/23, R, {Schaum's Chapter 8, 9, 14}  
Extra Credit Homework 2, 10/21, R, {3.5, 4.1, 4.2}  
Extra Credit Homework 3, 11/18, R, {4.8, 5.1}

## Tentative Exam Schedule

Exam 1, 9/21, T, {1.1–Schaum's 9.4}  
Exam 2, 10/21, R, {Schaum's 14.1–14.2, 3.1–4.2}  
Exam 3, 11/18, R, {4.3–5.1}

## Homework problems and Suggested practice problems

- The underlined boldface numbers are **homework problems** to be collected and graded;
- The regular numbers are **suggested practice problems**.

1.1 : 7, 8, 10, 11, 12, 14, 15, 18, 19, 22, 28, 32, 73, 74, 75, 76, 77, 79, 81, 83.

1.2 : 1, 2, 15, 16, 33.

Schaum's 1.1–1.5 : 1.16(c), 1.17(a), 1.19(a), 1.20(c); 1.16, 1.17, 1.18, 1.19, 1.20.

Schaum's 2.1–2.9 : 2.21(a)(e)(h), 2.23(a), 2.24(c), 2.25; 2.21(b)(g), 2.23(c), 2.24(a)(e)(i), 2.26, 2.27.

Schaum's 3.1–3.7 : 3.18(a), 3.20; 3.18(b), 3.22, 3.24.

Schaum's 6.1–6.4 : 6.12(a)(h), 6.13(b), 6.15(a)(d); 6.12(c)(e)(i), 6.13.

Schaum's 7.1–7.6 : 7.6(b), 7.7(a), 7.8(a); 7.6, 7.7(b), 7.8(d).

Schaum's 8.1–8.3 : 8.20, 8.27, 8.32, 8.41; 8.23, 8.36, 8.42.

Schaum's 9.1–9.4 : 9.31(a)(d), 9.34(b), 9.38(b)(e); 9.30, 9.31(c)(h)(j), 9.34(c)(f), 9.37(b).

Schaum's 14.1–14.2 : 14.26, 14.30, 14.34, 14.36, 14.47; 14.32, 14.37.

3.1: 8, 9, 22, 49, 53; 1, 3, 6, 11, 12, 13, 14, 15, 19, 29, 33, 35, 37, 41, 43.

3.2: 6, 17, 31, 39, 47; 3, 8, 11, 15, 19, 20, 26, 35, 45.

3.3: 1, 4, 10, 16, 21; 7, 13.

3.4: 6, 11, 12, 14, 16; 2, 5, 18.

3.5: 2; 4, 5.

4.1: 2, 5, 21, 56; 66.

4.2: **4, 10, 13, 42, 65**; 1, 7, 16, 19, 48.

4.3: **4, 13, 50, 63, 72**; 1, 7, 10, 16, 18, 35, 38, 53, 55, 57, 60, 66, 69, 71, 84.

4.4: **5, 17, 50, 55, 68**; 8, 11, 24, 27, 40, 47, 52, 57, 60, 66, 73, 76, 83, 86.

4.5: **1, 16, 28, 52**; 4, 7, 10, 19, 25, 37, 40, 53, 56, 66.

4.6: **4, 10, 17, 21, 33**; 1, 13, 25, 29, 36, 39, 44.

4.7: **2, 7, 23, 37, 74**; 5, 10, 22, 26, 32, 40, 43, 47, 65, 75, 76.

4.8: **5, 7, 13, 46**; 2, 9, 19, 29, 41.

5.1: **4, 17, 49, 51**; 1, 19, 24, 35.

5.2: **5, 14, 18**; 9, 15, 21, 28.

5.3: **14, 22, 28, 37**; 1, 15, 20, 21, 31, 39.

5.4: **5, 17**; 22.

5.5: **4, 19, 25**; 1, 10, 13, 22, 31, 36, 39, 42, 45.