

Course Syllabus
Math 2133 – Calculus for Technology Programs II
Fall 2010

MWF 8:30am – 9:20pm HES 331 (Section 001)

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Textbook: *Technical Calculus with Analytic Geometry* (Fourth Edition) by Allyn J. Washington. Addison-Wesley College Publishing, 2002.

Prerequisite: Math 2123 – Calculus for Technology Programs I

Course Aims: 1) To understand the definitions and principles in elementary calculus (primarily differentiation and integration) and certain selected topics from more advanced areas. 2) To understand applications of calculus related to areas of technology. 3) To further develop necessary mathematical skills for continued study.

Examinations: There will be three (3) fifty-minute examinations, with a maximum possible score of 100 points each, and a 100 point comprehensive final examination, which will be recorded twice. The lowest midterm, or one copy of the final exam score will be dropped. The dates for the midterms are September 22nd, October 27th and December 1st, subject to confirmation. There will be a comprehensive final exam in the usual classroom on:

Wednesday December 15th from 8:00am - 9:50am.

Make-up examinations will be given only for **very serious and unavoidable** conflicts, and **ONLY** if your request to present a make-up examination is approved by the Instructor in advance. If this condition is not satisfied, it is understood that the opportunity to present a make-up examination is voided.

Homework: A list of homework problems corresponding to each section of the textbook is provided; these problems will not be submitted and graded. However, it is expected that you work these problems when the section is discussed in class to assess your knowledge of the material; these practice problems are also an excellent source of problems for quizzes and examinations.

Quizzes/Teamwork: There will be a total of eleven (11) closed-book quizzes with a maximum possible score of 10 points each during the course of the semester. There is a total of 110 points possible on the eleven (11) quizzes. You must be present for the entire class session to present the quiz; **there are no make-ups for any reason whatsoever.** For very special situations, the instructor reserves the right to allow a quiz to be presented early; prior approval is required.

Some written exercises may be assigned to be completed in teams. Points from Teamwork will be advised for each exercise and will be added to your total quiz score; however, the combined quiz and teamwork grade will not exceed 100 points.

Calculators: A scientific calculator will be required that is capable of evaluating the trigonometric functions and their inverse functions, in both degrees and radians. Graphics calculators are not required and **will not** be permitted during quizzes or examinations. *Recommended:* TI-30X IIS.

Attendance: Attendance of all lectures is expected, however rolls may not be taken every class. It is your responsibility to know the material covered and any homework, test dates or syllabus changes announced in class.

Help: In addition to Office Hours, further consultation with the Instructor is available by appointment.

Help is also available through the **Mathematics Learning Resource Center (MLRC)** <http://www.math.okstate.edu/mlrc/>. The Center is an invaluable resource to support your mathematical learning and you are encouraged to go there regularly. The MLRC is located on the 4th floor of the Classroom building; you should check-in for tutoring in 420 CLB. The times for MLRC Calculus Tutoring are: MTR 3:00 pm - 9:00 pm, W 3:00pm - 6:00pm.

The special learning supplement developed for MATH 2123 will also be helpful in this course. The URL is <http://www.math.okstate.edu/~aichele/millerd/TCLS.html>

Grading: Your final grade will be based on the following, with the given scale for letter grades:

| | Points | Grade | Points Needed |
|------------------|-------------|-------|---------------|
| Quizzes/Teamwork | 100 | A | 450 - 500 |
| Midterm 1 | 100 | B | 400 - 449 |
| Midterm 2 | 100 | C | 350 - 399 |
| Midterm 3 | 100 | D | 300 - 349 |
| Final | 100 | F | 0 - 299 |
| Final | 100 | | |
| Lowest Exam | <u>-100</u> | | |
| Total | 500 | | |

Some discretion of the Instructor may be used in deciding borderline cases.

- Notes:**
1. Final grades will not be curved.
 2. Any changes to this syllabus will be communicated in class by the Instructor.

University-Wide Policy: The policies herein are specific to this class. For the full OSU guidelines on matters such as withdrawal from courses, academic integrity and student disability, please refer to the University Syllabus Attachment, to be found at <http://osu.okstate.edu/acadaffr/aa/syllabusattachment-Fall.htm>.

Suggested Homework Problems

| Chapter | Section | Pages | Problems |
|---------|---------|---------|---------------------------------|
| 7 | 7.1 | 231-232 | 11, 19, 23, 29, 31, 33, 35 |
| | 7.2 | 237-238 | 5, 7, 11, 13, 27, 31, 33, 35 |
| | 7.3 | 242-243 | 1, 3, 7, 9, 13, 15, 17, 21, 49 |
| | 7.4 | 246-247 | 5, 9, 13, 17, 21, 47 |
| | 7.5 | 252-253 | 45, 47, 49, 51, 53, 61, 63 |
| | 7.6 | 256 | 9, 11, 13, 19, 47 |
| | 7.7 | 260-261 | 9, 11, 21, 27, 29, 31 |
| 8 | 8.1 | 271 | 1, 3, 5, 13, 15, 33, 35, 41, 47 |
| | 8.2 | 275 | 9, 17, 19, 21, 25, 27, 37, 39 |
| | 8.3 | 278-279 | 5, 9, 11, 15, 49, 51 |
| | 8.4 | 282 | 17, 21, 23, 29 |
| 9 | 9.1 | 287-288 | 1, 3, 5, 13, 15, 23, 25 |
| | 9.2 | 291 | 1, 3, 5, 9, 11, 13, 17, 19, 25 |
| | 9.3 | 294 | 7, 9, 13, 17 |
| | 9.4 | 297-298 | 3, 5, 11, 13, 15, 23 |
| | 9.5 | 301-302 | 1, 3, 7, 9, 13, 21 |
| | 9.6 | 305 | 3, 5, 13, 15, 17 |
| 10 | 10.1 | 313 | 1, 3, 5, 9, 11, 13 |
| | 10.2 | 317 | 1, 5, 7, 9, 11 |
| | 10.3 | 320 | 1, 3, 5, 7, 9, 11, 15 |
| | 10.4 | 324 | 1, 3, 5, 7, 9 |
| | 10.5 | 329 | 1, 3, 5 |
| 11 | 11.1 | 339-340 | 1, 3, 5, 7, 37, 39 |
| | 11.2 | 345 | 3, 25 |
| | 11.3 | 349-350 | 3, 5, 13, 15, 25, 27, 29, 35 |
| | 11.4 | 355-356 | 13, 15, 17, 19, 27, 29 |
| | 11.5 | 360 | 1, 5, 7, 11, 17, 21, 23 |
| 12 | 12.1 | 370 | 21, 23, 27, 29, 33, 35 |
| | 12.2 | 373-374 | 1, 3, 5, 9, 11, 13, 21 |
| | 12.3 | 378 | 21 |