

**MTHM 121 : Technical Mathematics I**  
**Sample Syllabus from**  
**Fall Semester 2006**

**Text:** Technical Mathematics with Calculus, Second Edition, Ewen, Gary and Trefzger

**Grading:** Grades will be based on a total of 700 points. There will be four (4) Chapter Exams worth 100 points each and a departmentally-written, comprehensive Final Exam worth 200 points. The remaining 100 points come from Quizzes and collected Assignments that will be given throughout the semester. Course grades will be based on the following scale :

$$A = 700 - 630 \text{ points, } B = 629 - 560, C = 559 - 490, D = 489 - 420, F = 419 - 0.$$

**Important Dates to Remember:** All Exam dates are in the Homework Schedule. Please keep these other dates in mind. Friday, November 10, 2006 is the last day to withdraw from the course and receive a grade of "W". Tuesday, December 5, 2006 and Wednesday, December 6, 2006 are *reading days*. Reading days have been placed in the Academic Calendar to provide students the opportunity to meet with faculty to discuss issues related to the course including homework, projects or other assignments and to review their progress before the Final Exam. We will hold optional review days during our regularly scheduled class time on both days.

**Homework and Study Habits:** There is no royal road to mathematics. You must work a great variety of problems to begin to understand the material. Moreover, mathematics is a cumulative subject in that the material covered on one day is built upon material learned previously. *Thus, you must attend every lecture and study regularly in order to do well in this course.* In fact, the Ohio Board of Regents, the governing body for all Ohio colleges and universities, in its Operating Manual for Two-Year Campus Programs makes the following statement.

Students will be expected to work at out-of-class assignments on a regular basis which, over the length of the course, would normally average two hours of out-of-class study for each hour of formal class activity. This out-of-class study shall not be counted as part of the classroom hour for credit purposes.

With that in mind, sets of homework exercises are assigned after every lecture according to the Homework Schedule. They are never collected and do not count toward your course grade. Students should expect to spend a minimum of two hours completing each set of exercises. This class is, at minimum, a **12 hour per week commitment**, so plan your semester accordingly. (DON'T PANIC. A large part of my job is to help you become a better student and I'll work twice as hard as you do to help you succeed.)

When you study for this course, you should first read your textbook carefully. Mathematics texts are almost always written to be so precise as to obscure all clarity. At the very least, the authors tend to skip details in long computations. Therefore, have paper and pencil with you in order to follow any calculations yourself and make sure you understand them. Pay special attention to the discussion of new concepts, definitions and theorems and to the relevant examples. As you do this, you should also read and review your class notes. It would certainly be a good idea to copy your class notes into another notebook in order to fill in any missing details, to make sure that your summary of the concepts and theorems is precise and correct, and to add any explanations necessary to make your notes understandable to you. The objective of this review should be to understand the concepts under discussion and the examples presented in the textbook or discussed in class. Once you understand the relevant concepts, you should work on the assigned homework problems, trying to understand their connection with the concepts and examples that you studied earlier. Making a serious effort to solve problems on your own is essential to learning mathematics, and some problems may require significant work and reflection during an extended period of time. This work is very valuable for the learning process whether or not you succeed in solving the problem and you must experience it yourself. Simply put, mathematics is not a spectator sport.

**Make-up Policy:** All students are expected to take the Exams (including the Final Exam) during the class period with the rest of the class. If you must take an Exam at another time, you must obtain permission from me PRIOR to the scheduled time. (Permission to take a make-up will be given only when there is a VALID reason for missing the Exam; serious illness, death in the family, etc..) In case of an emergency when I cannot be reached personally, you may leave a voice mail or email message for me BEFORE the scheduled time. (The voice mail computer records the date and time when the message was left.) IF AN EXAM IS

CANCELLED DUE TO EXTENUATING CIRCUMSTANCES (e.g. bad weather, power outage) IT WILL BE HELD ON THE VERY NEXT CLASS MEETING.

**Help:** If you are having trouble with any of the material, please see me in my office, or better yet, ask questions in class. Also, there is free tutoring available through the Individualized Learning Support Center in the library. Be forewarned : The tutors are NOT going to do your work for you. There is no substitute for hard work in this course. (Again, DON'T PANIC!)

**ADA Statement:** In accordance with LCCC policy, if you have a documented disability and require accommodations to obtain equal access in this course, please contact me during the first week of the semester or when given an assignment for which an accommodation is required. Students with disabilities must contact the Office for Special Needs Services at extension 4058. (See Page 163 of the 2006 - 2007 LCCC Catalog.)

**Miscellaneous:** Here are a few other things that need to be put in writing.

1. Graphing calculators are used extensively throughout this course. It is YOUR responsibility to be able to use one, but I am very willing to help. No specific brand is required and a Computer Algebra System is not necessary.
2. Attendance will be taken every day for the first few weeks. It does not count toward your grade, but rather, is for administrative purposes only.
3. Obviously no form of cheating will be tolerated. Cheating on an Exam will result in a score of 0 (zero) on that Exam and may result in a grade of *F* in the course and/or dismissal from the College in accordance with the Code of Student Conduct.
4. Please turn off any electronic things that go *beep* like pagers, phones and watch alarms. Those items have no place in a College classroom.
5. As was noted earlier, the last day to withdraw from the course and receive a letter grade of *W* is Friday, November 10, 2006. After that, College policy stipulates that the instructor's permission and the Division Director's consent are required to complete an administrative withdrawal. Such permission will be given only for rare extenuating circumstances.
6. All LCCC policies, including, but not limited to, those printed on pages 163 - 171 of the 2006 - 2007 LCCC Catalog, are in effect in this classroom.
7. This syllabus is subject to change with advance notice.

Note : In the table below, the abbreviation "odd" means every odd numbered exercise in the group. For example, 5-11 odd means 5, 7, 9, 11. The abbreviation "e.o.odd" means every *other* odd numbered exercise in the group. Thus, 1-13 e.o.odd means 1, 5, 9, 13. Lastly, "all" means all of the exercises in the given range. These exercises will NEVER be collected. It is your responsibility, not mine, to stay current with the material.

#### Homework Schedule

Date Assigned	Section	Exercises
08/21	1.1	7, 19, 23, 49, 69, 73
	1.2	5, 11, 17, 23, 39, 47
	1.3	17, 25, 27, 35, 53
	1.4	9, 17, 29, 39
	1.5	5, 17, 25, 35, 41
08/22	1.6	5, 9, 15, 21, 29, 35, 45, 64, 79
	1.7	11, 26, 31, 43, 49, 57, 61, 81
	1.8	1, 7, 19, 37, 45, 59
	1.9	9, 17, 25, 31, 44
08/23	1.10	1-53 e.o.odd
08/24	1.11	1-49 e.o.odd
	1.12	9, 15, 21, 27, 36
08/28	1.13	1-23 odd
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Date Assigned	Section	Exercises
08/29	1.14	1-29 e.o.odd, 33, 43, 49, 57, 65, 71, 75
	1.15	1-37 e.o.odd
08/30	17.1	1-57 e.o.odd
08/31	17.2	1-27 odd
09/04		Labor Day - No Class - Campus Closed
09/05	2.1	1-19 odd
	2.2	1-23 odd
09/06	2.3	1-19 odd
	2.4	1-21 odd
09/07	2.5	1-19 odd
09/11	3.1	23, 27, 29-38 all, 39, 41, 51, 59, 61, 63
	3.2	1-11 odd, 19, 23, 25, 29, 31, 33, 47, 51
09/12	3.3	1-33 odd
09/13	3.4	1-35 odd
09/14		Review for Exam I
09/18	Exam I	No Homework
09/19	4.1	1-35 odd
	4.2	1, 3, 7, 17, 21, 25, 35, 51
09/20	4.3	1-55 odd
09/21	4.4	1-19 odd
	4.5	1-25 e.o.odd
09/25	5.1	3, 7, 13, 15, 39, 48
	5.2	3, 15, 23, 37, 47, 57, 59, 63
	5.3	3, 9, 15, 21, 23, 31
09/26	5.4	1, 3, 5, 7, 15, 21, 27, 29, 35, 40
	5.5	5, 9, 11, 17, 21, 29, 33, 45, 47
09/27	5.6	21, 25, 31, 35, 41, 47, 55, 63, 69, 71
	5.7	1-35 odd
09/28	5.8	1-43 odd
10/02	6.1	1-57 e.o.odd
10/03	6.3	1-21 odd
10/04	6.4	9, 17, 23, 31
	6.5	3, 21
	6.6	5, 11, 23, 33
10/05		Review for Exam II
10/09	Exam II	No Homework
10/10	15.1	1-45 e.o.odd
	15.2	1-31 odd
10/11	15.3	1-41 e.o.odd
10/12	15.4	1-25 odd
10/16	7.1	1-37 e.o.odd
	7.2	1-17 e.o.odd
10/17	7.3	1-49 e.o.odd
10/18	7.4	1-27 odd
10/19	8.1	3, 7, 13, 25, 35, 39, 47, 57, 69, 71, 72
	8.2	1, 3, 6, 11, 16, 19, 27, 33, 36, 44, 47, 51, 53, 56, 63
10/23	8.3	3, 7, 15, 19, 35, 49, 55, 61, 63, 69, 71
	8.4	1, 6, 19, 26, 33, 40, 43, 55
	8.5	2, 11, 17, 28, 36, 39, 42, 43, 46
10/24	9.1	1-45 odd
10/25	9.2	1-47 odd
10/26	9.3	1-47 odd
10/30	9.4	1-53 e.o.odd
	9.5	1-65 e.o.odd
10/31		Review for Exam III

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Date Assigned	Section	Exercises
11/01	Exam III	No Homework
11/02	9.6	1-55 odd
11/06	9.7	1-35 odd
11/07	9.8	1-29 odd
11/08	10.1 10.2	1-37 odd 1-41 e.o.odd
11/09	10.3 10.4	1-69 e.o.odd 1-19 odd
11/10		Last Day to Withdraw and Receive a "W"
11/13	11.1	1-23 odd
11/14	11.2	1-23 odd
11/15	11.3	1-27 odd
11/16	11.4	1-25 odd
11/20	11.5	1-13 all
11/21	11.6 11.7	1-15 odd 1-27 odd
11/22	11.8	1-33 odd
11/23		Thanksgiving Day - No Class - Campus Closed
11/27	12.1 12.2	1-21 e.o.odd 1-21 e.o.odd
11/28	14.1 14.2	2, 3, 8, 10, 15, 17, 19, 23, 27, 31, 33, 35, 37, 45, 51, 53 1-29 e.o.odd
11/29	14.3 14.4	3, 6, 7, 11, 13, 17, 20, 23, 27, 30, 35, 39, 42, 45, 47, 51 1-33 e.o.odd
11/30		Review for Exam IV
12/04	Exam IV	No Homework
12/05	Reading Day	A Review Session will be held during normal class time
12/06	Reading Day	A Review Session will be held during normal class time
12/07		Review for Final Exam
12/11	Final Exam	SPECIAL TIME! 12:00pm - 1:50pm