

## Syllabus for Calculus for Engineering Technology II (MATH 2460) Spring 2006

The following items should be included on the syllabus distributed to the student at the first meeting.

**Office hours:** Time and place of office hours. University requirement is 5 hours for faculty and visiting faculty, 3 hours for graduate assistants, and 2 hours for part-time faculty.

**Prerequisites:** Passing grade in Math 2450. Students who enroll in Math 2460 but have not the prerequisite course may be administratively dropped from the class. General education curriculum core course meets the skills requirements in mathematics.

**Textbook:** *Technical Calculus - Special Edition for The University of Toledo*, Ewen, Gray, Trefzger, and Colley.

**Resources:** Students should be made aware of the tutoring help the university provides. The Mathematics Department's tutoring center is the Mathematics Learning and Resource Center (MLRC) that is located in the basement of Carlson Library - phone ext. 2176. It operates on a walk-in basis. Please notify your students of tutoring available at the LEC (or email them the link). LEC Tutoring Hours: Monday/Thursday 9AM - 8PM, Tuesday/Wednesday 9AM - 9PM, Friday 9AM - 2PM.

**Grading and Evaluation:** The syllabus should describe the methods of evaluation whether quizzes, exams, or graded assignments. The usual procedure is to give at least two 3 hour in-class exams and a two hour final exam. If quizzes are not used as a portion of the grade, then three 4 hour exams are recommended. How each evaluation method is to count toward the class grade should be described and a grading scale or description of a grading procedure should be provided. It should be kept in mind when scheduling quizzes and exams that the last day to add/drop the class is the 15th calendar day of the semester and the last day to withdraw from the class is the end of the tenth week. By these dates, students like to have some measure of their progress in the class. Also be sure to publish a policy concerning missed exams and quizzes consistent with the Universities missed class policy (see [http://www.utoledo.edu/facsenate/missed\\_class\\_policy.html](http://www.utoledo.edu/facsenate/missed_class_policy.html)).

**Class Schedule:** Syllabus should provide a list of sections to be covered and it is advisable to give an exam schedule. The suggested number of periods needed for each section is listed below.

Chapter	6	Applications of Integration	8 hours
	6.4	Center of Mass of a System of Particles	1.0
	6.5	Center of Mass of Continuous Mass Distributions	3.0
	6.6	Moments of Inertia	2.0
	6.7	Work, Fluid Pressure, and Average Value	2.0
Chapter	7	Methods of Integration	17 hours
	7.1	The General Power Formula	1.0
	7.2	Log and Exponential Forms	1.0
	7.3	Basic Trigonometric Forms	1.0
	7.4	Other Trigonometric forms	1.0
	7.5	Inverse Trig Forms	1.0
	7.6	Partial Fractions	2.0
	7.7	Integration Using Partial Fractions	1.0
	7.8	Integration by Parts	2.0
	7.9	Integration by Trig Substitution	2.0
	7.10	Integration Using Tables	1.0
	7.11	Numerical Methods of Integration	1.0
	1.13	Polar Coordinates	2.0
	7.12	Areas in Polar Coordinates	1.0
Chapter	8	Three Space: Partial Derivatives and Double Integrals	7 hours
	8.1	Functions in Three Space	2.0
	8.2	Partial Derivatives	1.0
	8.3	Applications of Partial Derivatives	2.0
	8.4	Double Integrals	2.0
Chapter	1	Vectors (Colley)	11 hours
	1.1	Vector in Two and Three Dimensions	1.0
	1.2	More about Vectors	2.0
	1.3	The Dot Product	2.0
	1.4	The Cross Product	2.0
	1.5	Equations of Planes; Distance Problems	2.0
	1.7	New Coordinate Systems	2.0
Chapter	11	First Order Differential Equations	7 hours
	11.1	Solving Differential Equations	1.0
	11.2	Separation of Variables	2.0
	11.3	Use of Integrating Factors	1.0
	11.4	Linear Equations of the First Order	1.0
	11.6	Applications of First Order Differential Equations	2.0
		Total Hours	50