

SOUTHEAST MISSOURI STATE UNIVERSITY

Department of Mathematics
Title of Course: Analytic Geometry and Calculus I

Course No. : MA140
DATE: Spring 2005

I. Catalog Description:

Analytic geometry, functions, limits, derivatives and integrals of algebraic, trigonometric, and exponential functions with applications. Credit may not be received for both MA140 and MA139. (5 hours)

II. Prerequisites:

MA133 and MA134 with minimum grades of 'C'; or 2 units high school algebra, 1 unit geometry, and 1 unit pre-calculus mathematics. Any required developmental mathematics courses must be completed before enrolling in this course.

III. Objectives of Course:

This course, MA145, and MA240 form a three course sequence designed to give students a working knowledge of analytic geometry, limit, the derivative, and the integral.

IV. Expectations of Students:

The students are expected to attend classes, participate in classroom activities, do homework, and pass examinations.

V. Course Outline:

Topics	Sections	Class Hours
• Functions and Models	1.1-1.6	8
• Limits and Derivatives	2.1-2.9	12
• Differentiation Rules	3.1-3.11	18
• Applications of Differentiation	4.1-4.10	15
• Integrals	5.1-5.6	11
• Applications of Integration	6.1-6.3	4
• Examinations		5
	Total	<hr/> 73

VI. Textbook:

Stewart, James (2003) Calculus: Early Transcendentals (Fifth Edition),
Belmont, CA: Brooks/Cole-Thomson Learning.

VII. Basis of Student Evaluation:

- Hourly examinations
- Quizzes, homework, class participation
- Final examination