Minnesota State University Moorhead

MATH 229: Topics in Calculus

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites:
This course requires any of these seven prerequisites
MATH 127 - College Algebra
A score of 1 on test Transfer Equivalent to MATH 127
A score of 24 on test ACT Math
A score of 50 on test Accuplacer College Level Math
A score of 560 on test OLD-SAT Math
A score of 580 on test SAT Math Composite
A score of 255 on test Accuplacer NG Advanced Algebra Functions

Corequisites: None

MnTC Goals: Goal 04 - Mathematical/Logical Reasoning

Introduction to differential and integral calculus with an emphasis on applications. Introduction to matrices and their applications. Not open to mathematics majors or minors. Must have successfully completed College Algebra or acceptable placement score. Requires a C- or better in MATH 127. MnTC Goal 4.

B. COURSE EFFECTIVE DATES: 10/07/2013 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Exponential and logarithmic functions
2. Limits
3. Derivatives and their applications
4. Definition of integrals, power rule, substitution
5. Solving systems of linear equations using matrices

D. LEARNING OUTCOMES (General)

1. Use differential calculus to solve a variety of real world problems.
2. Use integral calculus to solve a variety of real world problems.
3. Use matrix methods to solve a variety of real world problems.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 04 - Mathematical/Logical Reasoning

1. No Competencies Indicated
2. Illustrate historical and contemporary applications of mathematical/logical systems.
3. Clearly express mathematical/logical ideas in writing.
4. Apply higher-order problem-solving and/or modeling strategies.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted