MATH 1101 - Calculus Preparation – Offered Fall and Spring

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Objective: MATH 1101 is a preparatory course for MATH 1106 – Calculus for the Life and Social Sciences, offered in the spring semester and MATH 1110 – Calculus I, offered in the fall and spring semesters.

Description: The course introduces topics in calculus: limits, rates of change, definition of and techniques for finding derivatives, relative and absolute extrema. The calculus content of the course is similar to 1/3 of the content covered in the above mentioned courses. In addition, MATH 1101 includes a variety of topics of algebra, with emphasis on the development of linear, power, exponential, logarithmic and trigonometric functions. Because of the strong emphasis on graphing, students will have a better understanding of limits and asymptotic behavior of these functions.

Class meets two times per week for 50 minutes. There are no recitations. Structure of class is both lecture and active student participation.

Credit: MATH 1101 is a 1-credit course (letter grade only). Individual colleges should determine whether this course can be applied towards their quantitative reasoning requirements.

Text: Calculus with Applications, 10th edition by Lial, Greenwell and Ritchey. Two copies of the textbook and student solution manual are on reserve in the Malott Hall 4th floor Library.

Materials: Course Packet, graph paper and scientific calculators.

Homework:

- Before attempting homework, read the corresponding section in the textbook.
- Work on the odd-numbered practice exercises (answers provided in the back of the textbook) before attempting the assigned homework.
- Assigned homework, even-numbered exercises, will be collected in packet form on specific dates. Selected problems will be graded.
- Late homework will not be accepted.

Class Attendance: Success in this course depends largely upon consistent in-class attendance and participation.

Office Hours: Visiting the instructor or course assistant on a regular basis, during office hours or by appointment, is advised. It is easier to keep up than to catch up.

Prelims: There will be three, in-class prelims (no final exam). If you cannot be present on the day of a scheduled prelim, you must speak with the instructor, well in advance, to make arrangements to take the prelim ahead of time.

Grading: The following points will be assigned during the course.

Homework	100 pts
Prelim 1	100 pts
Prelim 2	100 pts
Prelim 3	100 pts
Total	**400 pts**

Additional Information:

Since Math 1101 – Calculus Preparation is a preparatory course for Math 1106 and Math 1110, the course has a unique format:

1. Approximately 8 - 10 office hours are offered per week between the instructor and course assistant. Students are encouraged to attend office hours <u>at least</u> once per week.

2. Since the class meets ~27 times during the semester, the course is divided into 3 units (Units I – 9 classes, Unit II - 9 classes, Unit III – 9 classes). Units consist of 7 lectures, 1 review class and 1 in-class prelim.

3. Extra credit: Students may earn 4 extra credit points (added to their prelim grade) for composing a help sheet (1-page summary of the topics covered in the unit).

4. Students have the opportunity to raise their first 2 prelim grades by correcting errors on the prelims, working out additional problems similar to the ones missed on the prelim and meeting with the instructor or course assistant to demonstrate mastery of the topics/concepts. Additional information will follow.