

INTRODUCTION TO MATH 131

This course is divided into 9 separate units called modules. The instructions are given in the modules along with several examples and exercises. Study the instructions and work through the examples before starting the exercise. The answers for the exercises are given at the end of the module. Check your work often. The key to success in working with modules is to ask questions whenever you have difficulty understanding the instructions, the examples or the exercises. Do not hesitate to ask for help.

After each module you must write a post-test. A passing mark of 60% is required on the post-test before continuing on to the next module. Students unable to attain this mark must review the material and rewrite the test to continue.

The first test mark for each module will count 4% towards the final grade. On a prescribed date, halfway through the semester, all students will be required to write a 1 hour midterm which will cover the first 5 modules. Any unwritten test before the midterm date will be given a grade of zero as the first test mark.

Upon completion of all modules, you will write a 3 hour final exam. Attached is the recommended test date for each module as well as the compulsory date for the midterm.

Your final mark is determined by:

| | |
|---------------|-----|
| 9 module test | 36% |
| Midterm | 20% |
| Final Exam | 44% |

You will find a calculator, with the following functions, helpful in this course:

$EXP, \sqrt{x}, \cos, \sin, \tan, y^x, \pi$

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| MODULE | TOPIC/DESCRIPTION | RECOMMENDED TIME | TEST DATE |
|--------|---|------------------|------------|
| 1 | Calculus - Tangents - Slopes - Derivatives | 1 1/2 weeks | / Sept. 16 |
| 2 | Distance, Velocity and Acceleration - average and instantaneous velocity - instantaneous acceleration - maximum and minimum distances and velocities | 1 week | / Sept. 23 |
| 3 | Maxima and Minima - word problems | 2 weeks | / Oct. 4 |
| 4 | Sequences, Limits and Continuity | 1 week | / Oct. 11 |
| 5 | Derivatives of Functions - chain rule - product rule - quotient rule | 1 1/2 weeks | / Oct. 22 |
| | M I D T E R M E X A M | 1 HOUR | / Oct. 24 |
| 6 | Tangents, Derivatives and Graphs | 2 weeks | / Nov. 7 |
| 7 | Further Applications of Derivatives | 1 1/2 weeks | / Nov. 18 |
| 8 | Anti-Derivatives and Area | 1 1/2 weeks | / Nov. 28 |
| 9 | Vectors | 1 week | / Dec. 11 |
| OR | | | |
| 10 | Systems of Linear Equations | 1 week | / Dec. 11 |
| | F I N A L E X A M | 3 HOURS | T. B. A. |