MA-271 Course Description (W15)

**Calculus with Applications**: Meets Mon and Wed, 5-6:40 p.m. in JXJ1320

**Instructor**: Richard Balding  
**Office**: JXJ2225 Office hours: M,W,R 12-1:50, M,W 4-4:50

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**Prerequisites**: MA-104 passed with C- or better, or equivalent.

**Learning Outcomes**: Upon successful completion of this course, students will be able to:
* Find and interpret a variety of limits and their applications.  
* Select and apply appropriate differentiation techniques.  
* Know how to apply differentiation to solve problems, such as related rates and optimizations.  
* Select and apply appropriate integration techniques for definite and indefinite integrals.  
* Model, apply and solve real world problems using differentiation and integration techniques.

Evaluation of these outcomes will be done through collected assignments (if any), quizzes and tests.

This course satisfies the Foundation of Natural Science/Mathematics requirement. Students who complete this course should be able to demonstrate a basic understanding of mathematical logic; use mathematics to solve scientific or mathematical problems in college classes; express relationships in the symbolic language of mathematics; and appreciate the role of mathematics in analyzing natural phenomena.

**Helpful hints**: Suggestions to help you succeed in Calculus -  
1) Reading and problems will be assigned daily or for blocks of time. I expect the average student to do about two hours of outside preparation for each hour of class time.  
2) Take good notes  
3) Read the material  
4) As you read the material, add to or clarify your notes  
5) Do all the homework – check answers and make sure you understand each concept. Note the problems which need clarification in class or from some help source  
6) Get help – study groups, the math lab or from me during office hours  
7) Don’t miss class – each night is 2 classes long. If you must be absent, you are responsible to get caught up with the material missed (the text was selected because it is quite readable).

**Math Lab**: A special room, WS-3810, has been set aside as a mathematics study room. There will be a tutor there to answer questions. The Lab will be open most weekdays from 9 am to 4 pm (Fridays 9-3). **Please note**: The role of the Math Lab tutor is to provide help when the
instructor is unavailable. A tutor can answer questions about the material or about problems, but s/he cannot be expected to teach you the material nor to show you in detail how to solve problems. In particular, you cannot ask the tutor to solve problems for you that you must turn in as a graded homework assignment.

**Attendance:** Required. Quizzes and tests must be taken at their scheduled times. No makeup exams will be given (and no late assignments will be accepted) except in cases of utmost gravity. In such a case, you must notify me before the exam that you will be missing. Times for quizzes, tests and homework submission will usually be announced in class.

**Calculators:**
On many tests or quizzes, no calculator of any type will be allowed. I will tell you during the unit whether a calculator is allowed or not. You may be allowed to use a scientific calculator (and no graphing calculators) on some tests/quizzes – for example to find values of trig functions, logs, lns, exponentials, etc. – or just to help with arithmetic operations. NO laptops or phone apps will be allowed on any tests.

**Graded Work:** There will be quizzes, possibly unannounced, and there may be some collected homework. There will also be several tests and a comprehensive final exam.

**Course Grades:**
The points for any collected homework (usually take home quizzes), quizzes, tests and the final added together make your final score, which when divided by the total possible number of points, give a percentage which provides your final grade. Curve points will be determined at the end of the course. If your attendance is at least 80%, you will receive points equal to the curve point total times your attendance %. (less than 80% = 0 points). The lower cutoffs for A’s, B’s, etc. will about be approximately 90%, 80%, 70%, and 60%. Plus and minus grades will be given.

**Further Notes:** Bring your text, calculator and notebook (for your class notes and homework solutions) to every class, starting Wednesday, the second class meeting.

**DISABILITY SERVICES**

If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Dean of Students Office at 2001 C. B. Hedgcock Building (227-1700). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.