ISOM 400 – Quantitative Methods  
Spring 2014, Friday 6-9 PM Maguire Hall – Room 340

Catalog Description  
Many core and advanced courses in the MBA program require mathematical preparation through elementary calculus. You will thus need a solid understanding of these topics to be prepared for MBA courses. This course introduces you to these fundamental mathematical techniques that you will need in later courses and uses problems that illustrate how they are applied in business.

Course Overview  
The course provides an overview of quantitative methods and their application to various business problems. Topics covered include a review of basic algebra, introduction to probability and distributions, introduction to functions and modeling, and concepts and applications of differential calculus. All students must demonstrate a proficiency in these topics to pass the course.

Course Objectives and Learning Outcomes  
1. Applying algebraic operations to functions and solving systems of linear equations  
2. Plotting functions and working with graphs and curves  
3. Calculating derivatives and solving min/max problems  
4. Understanding basic concepts in probability and distributions  
5. Applying course material to common business use cases  
6. Gaining factual knowledge of terminology, classifications, methods and trends  
7. Acquiring basic skills in analytical thinking, problem framing, and solving

Required Materials  

ISOM 400 – Quantitative Analytics
**Weekly Course Outline**

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<tr>
<th>Week</th>
<th>Math Topics</th>
<th>Read Units</th>
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<tr>
<td>Week 1 – February 21(^{st})</td>
<td>Functional Relationships, Algebra, Graphs and Curves</td>
<td>1- 4, 6 - 8</td>
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<td>Week 2 – February 28(^{th})</td>
<td>Linear Equations &amp; Applications</td>
<td>5</td>
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<tr>
<td>Week 3 – March 14(^{th})</td>
<td>Derivatives, Max/Min &amp; Optimization Problems</td>
<td>9 - 20</td>
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<td>Week 4 – March 21(^{st})</td>
<td>Exponential &amp; Logarithmic Functions, and Functions of Several Variables</td>
<td>22-23,28</td>
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<td>Week 5 – March 28(^{th})</td>
<td>Probability, Distributions</td>
<td>Notes</td>
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**Special Note**

This class may occasionally deviate from the course outline above. The instructor reserves right to make changes as needed to the course syllabus.

**Quinlan School of Business Policies:**

**Attendance**

Class attendance and participation are fundamental components of learning, so punctual attendance at all classes, for the full class meeting period, is expected of Quinlan students.

If you must miss a class or leave early, please notify in advance. You are responsible for any class assignments or requirements missed during an absence.

**Make-Up Examinations**

Loyola University academic policy provides that tests or examinations may be given during the semester or summer sessions as often as deemed advisable by the instructor. Because Quinlan faculty believe examinations represent a critical component of student learning, required examinations should be taken during the regularly scheduled class period. **Make-up examinations are discouraged.** Exceptions may be granted only by the faculty member or department chair, and only for unavoidable circumstances (illness verified by a signed physician’s note, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, or religious observance). A make-up final examination may be scheduled only with the permission of the appropriate Quinlan Assistant or Associate Dean.
**Academic Integrity**

All members of the Quinlan School shall refrain from academic dishonesty and misconduct in all forms, including plagiarism, cheating, misrepresentation, fabrication, and falsehood…Plagiarism or cheating on the part of the student in individual or group academic work or in examination behavior will result minimally in the instructor assigning the grade of “F” for the assignment or examination. In addition, all instances of academic dishonesty must be reported to the chairperson of the department involved.

For further information about expectations for academic integrity and sanctions for violations, consult the complete Quinlan School of Business Honor Code and Statement of Academic Integrity on the Quinlan website:


**Special Request**

This course depends highly on student dedicated attention and active participation. For this purpose and to minimize distractions please keep any cellphones, laptops and/or other electronic devices closed during class hours. Your cooperation is appreciated!