George Mason University
Graduate Course Approval/Inventory Form

Please complete this form and attach a copy of the syllabus for new courses. Forward it as an email attachment to the Secretary of the Graduate Council. A printed copy of the form with signatures should be brought to the Graduate Council Meeting. Complete the Coordinator Form on page 2, if changes in this course will affect other units.

Please indicate:    ___x___ NEW    ___ MODIFY    ___ DELETE

Local Unit:   School of Management   Graduate Council Approval Date:

Course Abbreviation:   MSBM   Course Number:   603

Full Course Title:   Managerial Economics and Decisions of the Firm in Bioscience Management

Abbreviated Course Title (24 characters max.):
Credit hours:   3   Program of Record:   BU

Repeatable for Credit?    ___ D=Yes, not within same term   Up to hours
___ T=Yes, within the same term   Up to hours
_x_ N=Cannot be repeated for credit

Activity Code (please indicate):    ___x Lecture (LEC)    ___ Lab (LAB)    ___ Recitation (RCT)
___ Studio (STU)    ___ Internship (INT)    ___ Independent Study (IND)    ___ Seminar (SEM)

Catalog Credit Format 3:3:0   Course Level:   GF(500-600)   ___x___ GA(700+)

Maximum Enrollment:   20   For NEW courses, first term to be offered:   04F
Prerequisites or corequisites:   Admission to Bioscience Management Program or permission of instructor

Catalog Description (35 words or less)   Please use catalog format and attach a copy of the syllabus for new courses.:   MSBM 603 Managerial Economics and Decisions of the Firm in Bioscience Management (3:3:0) Prerequisites: Admission to the Bioscience Management Program. Provides a fundamental understanding of how microeconomics concepts are usefully applied to managerial decision making. Principles of microeconomic theory are explored fully, including market supply and demand, production and cost functions, industry structure, and product and resource pricing.

For MODIFIED or DELETED courses as appropriate:
Last term offered:   Previous Course Abbreviation:   Previous number:

Description of modification:

APPROVAL SIGNATURES:
Submitted by:   ________________________________ email:   ________________

Department/Program:   ________________________________ Date:   __________________

College Committee:   ________________________________ Date:   __________________

Graduate Council Representative:   ________________________________ Date:   __________________
GEORGE MASON UNIVERSITY  
Course Coordination Form

**Approval from other units:**

Please list those units outside of your own who may be affected by this new, modified, or deleted course. Each of these units must approve this change prior to its being submitted to the Graduate Council for approval.

<table>
<thead>
<tr>
<th>Unit:</th>
<th>Head of Unit’s Signature:</th>
<th>Date:</th>
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<tbody>
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Graduate Council approval: ____________________________ Date: __________

Graduate Council representative: ______________________ Date: __________

Provost Office representative: ________________________ Date: __________
MS in Bioscience Management Program

MSBM 603: Managerial Economics and Decisions of the Firm

Version 1.0 (8/28/04)

Instructor: John H. Crockett, Jr.
234 Enterprise Hall
703-993-1851
jcrocket@gmu.edu
WebCT site: http://webct38.gmu.edu

Office hours: Monday and Wednesday, 2:30-4:00 p.m., and by appointment (call or e-mail anytime)

Womack, Jones, and Roos, The Machine That Changed the World
Oliver, The Biotech Age
brief articles—GMU Library electronic reserves

Course description and objectives:

This course will provide opportunities for developing familiarity with the techniques of economic analysis and for applying these techniques to problems facing managers. By simultaneously presenting key economic concepts and examining situations where managers can use them, the course will develop an analytical framework that can prove to be valuable in a wide variety of settings. The material covered in the course should make it possible to use economic analysis in identifying and evaluating decision alternatives, understanding the competitive environment of firms, and examining the factors that influence firm performance.

Applications in the bioscience sector will contribute to an increased understanding of key economic factors present and provide foundation material that can be applied in subsequent courses focusing directly on management in bioscience industries. Specific learning objectives for each of the principal topics will provide additional information.

Requirements:

Course requirements involve three kinds of learning activities: an exam, a project, and class assignments.
A. Exam

There will be a course exam, to be completed on an individual basis outside of class. While the exam will be open-book and open-notes, no other sources are to be consulted.

Weight: 35%

B. Project

The course project will be completed on a team basis. The project will provide an opportunity to develop skills in applying the tools of economic analysis to understand a bioscience company and the market in which it operates. The first task for the project will be to select an interesting but manageable company to analyze. The project will result in a paper and an in-class presentation.

Weight: 35%

C. Class assignments

The class assignments will involve a variety of activities: 3 brief write-ups of cases, the preparation of one briefing memo summarizing and discussing an article from the business press on a relevant topic, and contributions to threaded discussions. The written work (cases and memo) will be graded on a letter-grade basis.

Weight: 30% (case studies 15%; memo 15%)

Honor Code:

Students are reminded of their responsibilities under the GMU honor code. For information on the honor code, see www.gmu.edu/facstaff/handbook/aD.html
Topics and reading assignments

1. Introduction—economics, firms, and managers
   Baye, Chapter 1 (omit pp. 12-17)
   Baye, Chapter 6, pp. 214-223

2. Overview of the market mechanism
   Baye, Chapter 2

3. Economics of demand
   Baye, Chapter 3; Chapter 13, pp. 486-488
   Machine, Chapters 1 and 2

4. Economics of production
   Baye, Chapter 5, pp. 150-163
   Machine, Chapter 3

5. Economics of costs
   Baye, Chapter 5, pp. 173-188; Chapter 6
   Machine, Chapter 4

6. Industries and markets
   Baye, Chapter 7 (background reading, not covered on exam)

7. Competition and competitive markets
   Baye, Chapter 8, pp. 260-273

8. Monopolistic markets
   Baye, Chapter 8, pp. 273-290
   Machine, Chapters 5 and 6

9. Pricing with monopoly power
   Baye, Chapter 11 (omit pp. 396-398)
   Machine, Chapter 7

10. Monopolistic competition and oligopoly
    Baye, Chapter 8, pp. 290-299
    Baye, Chapter 9, pp. 309-311
11. Applications and extensions

A. Vertical integration
   Baye, Chapter 6, pp. 199-214

B. Performance assessment and incentives
   Baye, Chapter 6, pp. 214-223

C. Strategy and game theory
   Baye, Chapter 10, pp. 348-360

Key Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Topics/Assignments</th>
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<tbody>
<tr>
<td>August 28</td>
<td>residency: introduction</td>
<td>Topics 1, 2, and 3</td>
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<tr>
<td>September 7</td>
<td>synchronous session: production</td>
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<tr>
<td>September 10</td>
<td>demand case due</td>
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<td>September 13-19</td>
<td>discussion: production</td>
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<tr>
<td>October 4</td>
<td>production case due</td>
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<td>October 5</td>
<td>synchronous session: costs</td>
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<tr>
<td>October 11-17</td>
<td>discussion: resources and costs</td>
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<tr>
<td>November 1</td>
<td>cost case due</td>
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<tr>
<td>November 2</td>
<td>synchronous session: competition</td>
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<tr>
<td>November 3-10</td>
<td>discussion: competition and competitive forces</td>
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<tr>
<td>November 22</td>
<td>exam due</td>
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<td>November 30</td>
<td>synchronous session: monopoly</td>
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<td>December 8</td>
<td>briefing memo due</td>
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<tr>
<td>December 18</td>
<td>residency: presentations/papers</td>
<td>Topics 9, 10, 11</td>
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