MANAGERIAL ECONOMICS, BACHELOR OF SCIENCE

College of Agricultural & Environmental Sciences

The Major Program

The Managerial Economics major at UC Davis is a disciplinary program combining strong preparation in microeconomic theory and quantitative methods. It prepares students for the analysis of management and policy issues in business, finance, marketing, production, agriculture, food distribution, natural resources, the environment, resource allocation, and international trade and development. Students in the Managerial Economics program develop valuable skills and strengths that lead to careers in business and government. Students specialize in one or more emphases selected from the following:

- **Business Economics** focuses on the economic aspects of managerial decision-making essential for solving problems in business, management, marketing, and finance.
- **International Business Economics** explores the economic drivers and policy challenges in the major emerging markets and focuses on how these markets are impacting the world economy.
- **Environmental & Resource Economics** concentrates on issues related to the use of resources and environmental quality.
- **Agribusiness Economics** focuses on the economic and policy aspects of the production and marketing of foods and fibers.

Major Advisor

Contact Managerial Economics Student Services at manecon@ucdavis.edu or 530-754-9536.

Internships & Career Alternatives

Internships for students in Managerial Economics provide additional career experience, information, and preparation in a variety of business enterprises and governmental agencies. For more information, see Internship & Career Center (http://icc.ucdavis.edu/). Managerial Economics majors have established careers in every area of business and industry, including marketing, analysis, consulting, financial services, accounting, entrepreneurship, real estate and government. Many graduates have entered advanced degree programs in business management, accounting, finance, agricultural and resource economics, economics, public policy, and law.

Study Abroad

The Agricultural & Resource Economics department encourages students to complement their Managerial Economics degree with a study abroad experience. Students must seek pre-approval from a Managerial Economics staff advisor for major-related courses. A total of two upper-division courses (maximum four units each) may be applied to major requirements. However, core courses (ARE 100A, ARE 100B, ARE 106, ARE 155, and ECN 101) are excluded. Students are expected to complete ARE 100A and STA 103 prior to taking upper-division classes abroad for the major.

Domestic Institutions

Upper-division coursework taken at other four-year institutions for credit in the major must be reviewed by the Managerial Economics Lead Faculty Advisor.

Graduate Study

Students who meet the admission requirements of Graduate Studies and the Department of Agricultural and Resource Economics may pursue studies leading to M.S. and Ph.D. degrees. For information on admission to graduate study and degree requirements, consult the Graduate Program Coordinator in the Department of Agricultural & Resource Economics (https://catalog.ucdavis.edu/departments-programs-degrees/agricultural-resource-economics/).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td><strong>Major English Requirements</strong></td>
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<tr>
<td>The following must be completed with minimum C- (or PASS) grades.</td>
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<tr>
<td>Communication; choose one:</td>
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<tr>
<td>CMN 001</td>
<td>Introduction to Public Speaking</td>
<td>4</td>
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<tr>
<td><strong>OR</strong></td>
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<tr>
<td>CMN 003</td>
<td>Interpersonal Communication Competence</td>
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<tr>
<td>or CMN 003Y</td>
<td>Interpersonal Communication Competence</td>
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<tr>
<td>or CMN 003V</td>
<td>Interpersonal Communication Competence</td>
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<tr>
<td>Business Writing; choose one:</td>
<td></td>
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<tr>
<td>UWP 104A</td>
<td>Writing in the Professions: Business Writing</td>
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</tr>
<tr>
<td>or UWP 104AV</td>
<td>Writing in the Professions: Business Writing</td>
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</tr>
<tr>
<td>or UWP 104AY</td>
<td>Writing in the Professions: Business Writing</td>
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<tr>
<td><strong>Major English Requirements Subtotal</strong></td>
<td></td>
<td>8</td>
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</tbody>
</table>

Preparatory Subject Matter

All preparatory coursework must be completed with minimum C- (or PASS) grades:

**Business Law**

- ARE 018 Business Law

**Computer Science; choose one:**

- ECS 032A Introduction to Programming
- PLS 021 Application of Computers in Technology
- or PLS 021V Application of Computers in Technology

**Management (Accounting)**

- MGT 011A Elementary Accounting
- MGT 011B Elementary Accounting

**Economics**

- ECN 001A Principles of Microeconomics
- or ECN 001AV Principles of Microeconomics
- or ECN 001AY Principles of Microeconomics
- or ECN 001B Principles of Macroeconomics
- or ECN 001BV Principles of Macroeconomics

**Mathematics; choose a series:**

- The short calculus series, MAT 016A, MAT 016B, and MAT 016C is recommended for Managerial Economics majors. Other combinations of calculus classes will be accepted as outlined below.
- Choose 016 series:
  - MAT 016A Short Calculus
  - MAT 016B and Short Calculus
  - MAT 016C and Short Calculus
- **OR** choose 017 series:
Managerial Economics, Bachelor of Science

MAT 017A & MAT 017B
Calculus for Biology & Medicine and Calculus for Biology & Medicine

OR choose 021 Series:
MAT 021A & MAT 021B
Calculus and Calculus

OR choose 017A and 016B & 016C:
MAT 017A & MAT 016B & MAT 016C
Calculus for Biology & Medicine and Short Calculus and Short Calculus

OR choose 021A and 016B & 016C:
MAT 021A & MAT 016B & MAT 016C
Calculus and Short Calculus

OR choose 017A and 021B:
MAT 017A & MAT 021B
Calculus for Biology & Medicine and Calculus

OR choose 021A and 017B:
MAT 021A & MAT 017B
Calculus for Biology & Medicine and Calculus for Biology & Medicine

Statistics
STA 013
Elementary Statistics
or STA 013Y
Elementary Statistics
STA 103
Applied Statistics for Business & Economics

Preparatory Subject Matter Subtotal 39-42

Depth Subject Matter
Core Courses 20
All core courses must be taken for a letter grade. It is recommended that students complete core courses during their third year.

ARE 100A
Intermediate Microeconomics: Theory of Production & Consumption (Must be completed with a minimum grade of C-) ³

ARE 100B
Intermediate Microeconomics: Imperfect Competition, Markets & Welfare Economics ⁴

ARE 106
Econometric Theory & Applications

ARE 155
Operations Research & Management Science

ECN 101
Intermediate Macro Theory

Restricted Electives; choose at least one of the emphases, below: 32
Business Economics (p. 2)
International Business Economics (p. 3)
Environmental & Resource Economics (p. 3)
Agribusiness Economics (p. 3)

Depth Subject Matter Subtotal 52

Total Units 99-102

1 May also count for English Composition.
2 The upper-division composition exam will not satisfy this requirement.
3 Note: ECN 100A is not accepted.
4 Note: ECN 100B is not accepted.

Exceptions to All Emphases
The following courses do not apply toward any emphasis:

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<tr>
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<tr>
<td>ARE 113</td>
<td>Fundamentals of Marketing Management</td>
<td>4</td>
</tr>
<tr>
<td>ARE 135</td>
<td>Agribusiness Marketing Plan Development</td>
<td>2</td>
</tr>
<tr>
<td>ARE 142</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>ARE 147</td>
<td>Resource &amp; Environment Policy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ARE 147M</td>
<td>Resource &amp; Environmental Policy Analysis</td>
<td>2</td>
</tr>
<tr>
<td>ECN 102</td>
<td>Analysis of Economic Data</td>
<td>4</td>
</tr>
<tr>
<td>ECN 134</td>
<td>Financial Economics</td>
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<tr>
<td>ECN 140</td>
<td>Econometrics</td>
<td>4</td>
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<tr>
<td>ECN 151A</td>
<td>Economics of the Labor Market</td>
<td>4</td>
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<tr>
<td>ECN 162</td>
<td>International Economic Relations</td>
<td>4</td>
</tr>
</tbody>
</table>

Completing More Than One Emphasis
Courses may overlap between emphases. Requirements must be fulfilled as outlined in each emphasis with a minimum of 32 units.

Major GPA
Students must attain a major GPA of at least a C average (2.000) in courses taken for depth subject matter (core and restricted electives). These courses must be taken for a letter grade. All restricted elective courses taken will be calculated as part of the major GPA, including courses with F grades that have not been repeated.

Business Economics Emphasis

Choose 16 units:

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<tr>
<td>ARE 107</td>
<td>Econometrics for Business Decisions</td>
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<tr>
<td>ARE 112</td>
<td>Fundamentals of Organization Management</td>
<td></td>
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<tr>
<td>ARE 118</td>
<td>Tax Accounting</td>
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<tr>
<td>ARE 119</td>
<td>Intermediate Managerial Accounting</td>
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<tr>
<td>ARE 136</td>
<td>Managerial Marketing</td>
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<tr>
<td>ARE 157</td>
<td>Analysis for Operations &amp; Production Management</td>
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<tr>
<td>ARE 171</td>
<td>Principles of Finance</td>
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<tr>
<td>ARE 172</td>
<td>Financial Management of the Firm</td>
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<tr>
<td>ARE 173</td>
<td>Capital Markets</td>
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</tbody>
</table>

Choose remaining 16 units from the above list or from:

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>ARE/ECN 115A</td>
<td>Economic Development</td>
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<tr>
<td>ARE 115B/115BY/ECN 115B/115BY</td>
<td>Economic Development</td>
<td></td>
</tr>
<tr>
<td>ARE 130</td>
<td>Agricultural Markets</td>
<td></td>
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<tr>
<td>ARE 132</td>
<td>Cooperative Business Enterprises</td>
<td></td>
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<tr>
<td>ARE 133</td>
<td>Introduction to Behavioral Economics</td>
<td></td>
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<tr>
<td>ARE 138</td>
<td>International Commodity &amp; Resource Markets</td>
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<tr>
<td>ARE 139</td>
<td>Futures &amp; Options Markets</td>
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<tr>
<td>ARE 140</td>
<td>Farm Management</td>
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<tr>
<td>ARE 143</td>
<td>Investments</td>
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<tr>
<td>ARE 144</td>
<td>Real Estate Economics</td>
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</tbody>
</table>
ARE 145  Farm & Rural Resources Appraisal
ARE 146  Business, Government Regulation, & Society
ARE 150  Agricultural Labor
ARE 156  Introduction to Mathematical Economics
ARE 194HA Special Study for Honors Students
ARE 194HB Special Study for Honors Students
ECN 121A  Industrial Organization
ECN 121B  Industrial Organization
ECN 151B  Economics of Human Resources

Total Units 32

1 Formerly ARE 171A.
2 Formerly ARE 171B.

Environmental & Resource Economics Emphasis

All restricted electives must be taken for a letter grade.

Choose eight units:
ARE/ESP 175  Natural Resource Economics
ARE 176  Environmental Economics

Choose 20 units:
ARE 107  Econometrics for Business Decisions
ARE 120  Agricultural Policy
ARE 132  Cooperative Business Enterprises
ARE 138  International Commodity & Resource Markets
ARE 140  Farm Management
ARE 145  Farm & Rural Resources Appraisal
ARE 146  Business, Government Regulation, & Society
ARE 150  Agricultural Labor
ARE 156  Introduction to Mathematical Economics
ARE 194HA Special Study for Honors Students
ARE 194HB Special Study for Honors Students
ECN 125  Energy Economics
ECN 130  Public Microeconomics
ESP 168A  Methods of Environmental Policy Analysis
ESP 168B  Methods of Environmental Policy Evaluation
ESP 178  Applied Research Methods

Choose the remaining 4 units from the above list or from:
Upper division in Agricultural & Resource Economics (ARE).
Upper division in Economics (ECN).
ESP 160  The Policy Process
ESP 161  Environmental Law
ESP/ECI 163  Energy & Environmental Aspects of Transportation
ESP 167  Energy Policy
ESP 171  Urban & Regional Planning
ESP 172  Public Lands Management
ESP 173  Land Use & Growth Controls
ETX 138  Legal Aspects of Environmental Toxicology

Total Units 32

Agribusiness Economics Emphasis

All restricted electives must be taken for a letter grade.

Choose 8 units:
ARE 120  Agricultural Policy
ARE 140  Farm Management
ARE 150  Agricultural Labor

Choose 16 units:
ARE 107  Econometrics for Business Decisions
ARE 120  Agricultural Policy
ARE 121  Economics of Agricultural Sustainability
<table>
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<tbody>
<tr>
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<td>ARE 150</td>
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Choose the remaining 8 units from the above list or from:
- Upper division in Agricultural and Resource Economics (ARE).
- Upper division in Economics (ECN).

**Total Units** 32