

Applied Economics and Management Degree Requirements

CALS Distribution Requirements

Physical Sciences

Minimum 18 credits:

- Quantitative Methods (required by AEM):
AEM 2100: Introductory Statistics
Calculus: MATH 1106 or MATH 1110
- Introductory Life Sciences/Biology: minimum 6 credits that fulfill the CALS requirement
- Physics or Chemistry: any 3-credit course offered by the physics or chemistry departments
- Other Physical/Life Sciences course(s)

Social Sciences and Humanities

Minimum 12 credits:

- Economics (required by AEM): at least 2 economics courses in the Social and Behavioral Analysis category (SBA)
- Human Diversity (D): 1 course of 3 or more credits
- 1 course of 3 or more credits from any of the following categories:
Cultural Analysis (CA)
Historical Analysis (HA)
Knowledge, Cognition, & Moral Reasoning (KCM)
Literature and the Arts (LA)
Foreign Language (FL)

Written and Oral Expression

Minimum 9 credits:

- Written Expression: minimum 6 credits (e.g., First-Year Writing Seminar, AEM 2000)
- AEM 2700: Management Communication*
**Students who matriculated as freshmen before Fall 2013 and transfers before Fall 2014 must take COMM 2010 or ILRLR 2300 in place of AEM 2700*

AEM Core Requirements

Management Requirements

AEM 2200: Business Management and Organization
AEM 2225: Financial Accounting for Dyson
AEM 2420: Marketing
AEM 2240: Finance
AEM 3200: Business Law I*
AEM 3230: Managerial Accounting*

**AEM 3200 and AEM 3230 are optional for the following 3 concentrations: Applied Economics; Environmental, Energy, and Resource Economics; International Trade and Development*

Economics Requirements

ECON 1110: Introductory Microeconomics
ECON 1120: Introductory Macroeconomics
AEM 2600: Managerial Economics I*
AEM 2601: Managerial Economics II

**For students concentrating in Environmental, Energy, and Resource Economics, ECON 3030 is required instead of AEM 2600*

Quantitative Methods Requirements

AEM 2100: Introductory Statistics
MATH 1106: Calculus for the Life and Social Sciences OR
MATH 1110: Calculus I
AEM 2010: Spreadsheet Modeling

At least 3 credits from the following:

AEM 2770: Computational Sustainability
AEM 3030: Explorations in Analytic Modeling
AEM 3100: Business Statistics
AEM 3390: Research Methods in Internat'l Development
AEM 4060: Risk Simulation and Optimization
AEM 4070: Advanced Financial Analytics
AEM 4110: Introduction to Econometrics
AEM 4120: Computational Methods for Mgmt. and Econ.
AEM 4190: Strategic Thinking
BTRY/ILRST/STSCI 3080: Probability Models and Inference
CS 1110: Introduction to Computing using Python
CS 1112: Introduction to Computing using MATLAB
ECON 3130: Statistics and Probability
ECON 3140: Econometrics
ECON 4020: Game Theory
ILRST 2110: Statistical Methods for Social Sciences II
ILRST 3110: Probability Models and Inference for Soc. Sci.
MATH 1120: Calculus II

Applied Economics Requirements

At least 6 credits: must come from 2 different categories.
Courses used to fulfill a Quantitative Methods requirement or a concentration requirement or elective cannot also be counted towards a core Applied Economics requirement, unless that concentration is Environmental, Energy, and Resource Economics.

Environmental, Energy, and Resource Economics

AEM 2500: Environmental and Resource Economics
AEM 4500: Resource Economics
AEM 4510: Environmental Economics

Economic Analysis

AEM 3310: Introduction to Business Regulation
AEM 4140: Behavioral Economics and Managerial Decisions
AEM 4160: Strategic Pricing
AEM 4550: Economics of Advertising
AEM 4580: The Economics and Psychology of Sustainable Business

International Trade and Development

AEM 2300: International Trade and Finance
AEM 2350: Introduction to the Economics of Development
AEM 4300: International Trade Policy
AEM 4350: The Political Economy of the WTO
AEM 4420: Emerging Markets
AEM 4450: Food Policy for Developing Countries
AEM 4485: Economics of Food and Malnutrition
AEM 4545: International Finance and Macroeconomics

Food and Agricultural Economics

AEM 4070: Advanced Financial Analytics with Applications in Agriculture and Development
AEM 4150: Price Analysis
AEM 4210: Derivatives and Risk Management
AEM 4310: Agricultural and Food Policy

Concentrations

Students must choose at least one of the following 11 concentrations, and may choose no more than two. Note: No more than one course may fulfill the elective credits of two concentrations. Courses used to fulfill a core Applied Economics or Quantitative Methods requirement cannot also be counted towards a concentration requirement unless that concentration is EERE.

Accounting

AEM 3360: Intermediate Accounting I
AEM 3370: Intermediate Accounting II

At least 9 elective credits from the following:

AEM 3520: Financial Statements Analysis
AEM 4225: Systems and Analytics in Accounting
AEM 4520: Advanced Accounting
AEM 4521: Cost Accounting
AEM 4530: Auditing and Assurance
AEM 4531: Federal Income Taxation
AEM 4560: Federal Income Taxation of Business Entities, Estates, and Trusts
NBA 5020: Managerial Accounting and Reporting
NBA 5090: Advanced Financial Statement Analysis
NBA 5110: Financial Modeling

Agribusiness Management

AEM 3020: Farm Business Management
Human Resource Management: HADM 2810 or ILRHR 2600

At least 9 elective credits from the following:

AEM 2230: Cooperative Management
AEM 3040: Dairy Markets and Policy Seminar
AEM 3290: International Agribusiness Study Trip
AEM 4030: Farm Management Study Trip
AEM 4040: Credit and Banking in Agriculture
AEM 4070: Advanced Financial Analytics
AEM 4150: Price Analysis
AEM 4210: Derivatives and Risk Management
AEM 4310: Agricultural and Food Policy
AEM 4510: Environmental Economics
AEM 4560: Federal Income Taxation of Business Entities, Estates, and Trusts

Applied Economics

ECON 3040: Intermediate Macroeconomic Theory
Note: ECON 3020 can replace ECON 1120 and ECON 3040 (can replace 3040 with a grade of B or better)

At least 12 credits listed under Applied Economics Requirements*

At least 3 credits listed under Quantitative Methods Requirements*

*Must be courses that have not already been used to fulfill the AEM Core Requirements

MATH 1120 is strongly recommended, especially as preparation for graduate work in economics.

Business Analytics

Must take one of the following:

AEM 3100: Business Statistics
AEM 4110: Introduction to Econometrics

Must take one of the following:

CS1110: Introduction to Computing Using Python
CS1112: Introduction to Computing Using MATLAB
HADM 4760: Visual Basic for Applications
CS 1142: Introduction to MATLAB

Must take one of the following:

HADM 3740: Fundamentals of Database Management and Data Analysis

PLSCS 4200: Geographic Information Systems

At least 6 elective credits from the following:

AEM 2770: Excursions in Computational Sustainability
AEM 3030: Explorations in Analytical Modeling
AEM 4010: Organizational Analytics
AEM 4015: Customer Strategy and Analytics
AEM 4060: Risk Simulation & Optimization
AEM 4070: Advanced Financial Analytics
AEM 4120: Computational Methods for Management and Economics
AEM 4225: Systems and Analytics in Accounting
AEM 4610: Business Processes, Analytics and Enterprise Systems
AEM 4620: Advanced Financial Modeling and Analysis
STSCI 4060: Python Programming and Its Applications in Statistics
HADM 4010: Data-Driven Analysis
CS 2110: Object-Oriented Programming and Data Structures

Entrepreneurship

At least 15 elective credits from the following (at least 6 credits in AEM):

AEM 1210: Entrepreneurial Thought Leadership Seminar
AEM 1220: Entrepreneurship in the Life Sciences
AEM 1221: Entrepreneurship in the Life Sciences II
AEM 1230: Foundations of Entrepreneurship and Business
AEM 3220: Digital Business Strategy
AEM 3245: Organizational Behavior
AEM 3249: Entrepreneurial Marketing and Strategy
AEM 3250: Business Planning Process for New Ventures
AEM 3251: The Business Laboratory and New Venture Management
AEM 3340: Women, Leadership, and Entrepreneurship
AEM 3350: International Technology Marketing of Biotechnology
AEM 3380: Social Entrepreneurs, Innovators, and Solvers
AEM 3381: Social Entrepreneurship Field Study
AEM 3610: The Business Lab & Implementation of a Business Plan
AEM 4080: Innovation & New Product Management
AEM 4370: Strategy and Innovation
AEM 4380: Entrepreneurial Strategy for Technology Ventures
AEM 4390: Technology Strategy
AEM 4420: Emerging Markets
AEM 4615: Platform Strategy
HADM 4130: Entrepreneurial Management
HADM 4211: Entrepreneurial Finance
NBA 3000: Entrepreneur and Private Equity
NBA 6230: Actualizing Your Startup—Part I

Environmental, Energy, and Resource Economics

AEM 2500: Environmental and Resource Economics
AEM 4500: Resource Economics
AEM 4510: Environmental Economics
ECON 3030: Intermediate Microeconomic Theory
Note: ECON 3010 can be used to replace both ECON 1110 and 3030 (can replace 3030 with a grade of B or better).
ECON 3040: Intermediate Macroeconomic Theory
ECON 3020 can replace ECON 1120 and ECON 3040 (can replace 3040 with a grade of B or better).
Minimum 3 credits of EERE-related electives offered by the following departments: BIOEE, BEE, CRP, EAS, GOVT, NTRES, DSOC (Can also use AEM 2110)

Finance

AEM 4570: Corporate Finance
AEM 4670: Investments

Must take one of the following:

AEM 3520: Financial Statements Analysis
AEM 3360: Intermediate Accounting I

At least 6 elective credits from the following:

AEM 3050: Management of Banking Companies
AEM 3060: Practitioner's Overview of Securities Markets and Investment Banking
AEM 4060: Risk Simulation and Optimization
AEM 4070: Advanced Financial Analytics
AEM 4090: Environmental Finance and Markets
AEM 4210: Futures, Options, and Financial Derivatives
AEM 4230: Contemporary Topics in Behavioral Finance
AEM 4260: Fixed Income Securities
AEM 4280: Valuation of Capital Investment
AEM 4290: International Financial Management
AEM 4305: Valuation Principles
AEM 4590: Financial Markets and Institutions
AEM 4620: Advanced Financial Modeling and Analysis
AEM 4630: Asset Pricing and Management

Food Industry Management

AEM 2480: Food and Consumer Packaged Goods Industry Dynamics
Consumer Behavior: AEM 3440 or HADM 3470
AEM 4400: Retail Strategy

At least 6 elective credits from the following:

AEM 3270: Marketing-Operations Simulation
AEM 3430: Principles of Supply Chain Management
AEM 3450: Sustainability Marketing
AEM 4020/4021: Food and Brand Lab Workshop
AEM 4150: Price Analysis
AEM 4460: Food Marketing Colloquium

International Trade and Development

Must take one of the following:

AEM 2300: International Trade and Finance
AEM 2350: Introduction to the Economics of Development

At least 12 elective credits from the following:

AEM 2110: The Business of Biofuels
AEM 4290: International Financial Management
AEM 4300: International Trade Policy
AEM 4350: The Political Economy of the WTO
AEM 4420: Emerging Markets
AEM 4421: Research and Strategy in Emerging Markets
AEM 4450: Toward a Sustainable Global Food System: Food Policy for Developing Countries
AEM 4485: Economics of Food and Malnutrition
AEM 4545: International Finance and Macroeconomics
AEM 4640: Economics of Agricultural Development

Marketing

Consumer Behavior: AEM 3440 or HADM 3470
AEM 4410: Marketing Research

At least 9 elective credits from the following:

AEM 3210: Business Law II
AEM 3245: Organizational Behavior
AEM 3249: Entrepreneurial Marketing and Strategy
AEM 3270: Marketing-Operations Simulation
AEM 3350: International Technology Marketing of Biotechnology
AEM 3430: Principles of Supply Chain Management
AEM 3450: Environmental Marketing
AEM 4015: Customer Strategy and Analytics
AEM 4020/4021: Food and Brand Lab Workshop
AEM 4080: Innovation & New Product Management
AEM 4150: Price Analysis
AEM 4160: Strategic Pricing
AEM 4400: Retail Strategy
AEM 4420: Emerging Markets
AEM 4495: Consumer Neuroscience
AEM 4550: Economics of Advertising

Strategy

At least 15 elective credits from the following:

AEM 2550: Corporate Sustainability: Business in a Resource-Constrained World
AEM 3210: Business Law II
AEM 3220: Digital Business Strategy
AEM 3245: Organizational Behavior
AEM 3430: Principles of Supply Chain Management
AEM 4015: Customer Strategy and Analytics
AEM 4080: Innovation & New Product Management
AEM 4140: Behavioral Economics and Managerial Decisions
AEM 4160: Strategic Pricing
AEM 4190: Strategic Thinking
AEM 4370: Strategy and Innovation
AEM 4380: Entrepreneurial Strategy for Technology Ventures
AEM 4390: Technology Strategy
AEM 4480: Executing Firm Strategy
AEM 4580: The Economics and Psychology of Sustainable Business
AEM 4610: Business Processes, Analytics and Enterprise Systems
AEM 4615: Platform Strategy