



Twin Cities Campus

Agricultural and Food Business Management B.S.

Applied Economics

College of Food, Agricultural and Natural Resource Sciences

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2021
- Required credits to graduate with this degree: 120
- Required credits within the major: 65 to 74
- Degree: Bachelor of Science

The agricultural and food business management major is offered jointly by the College of Food, Agricultural and Natural Resource Sciences and the Carlson School of Management. The curriculum emphasizes concepts and methods from economics and business management and their use in identifying, analyzing, and solving management problems related to food, agriculture, natural resources, and economic development. The program provides a balance between applied economics and business management studies, with a limited amount of applied science. Students may elect a variety of courses or minors in their junior and senior years to accommodate special interests and career goals.

Graduates of the curriculum are prepared for a wide range of employment opportunities in the food system and other agribusinesses. Examples of employment areas include finance and banking, management, input, commodity and food marketing, sales, administration, public and industrial relations, production management, economic and statistical analysis, managerial accounting, management information systems, and supply chain management.

Students completing the program may also pursue graduate studies in preparation for research, teaching, or continuing education positions in academic institutions, government agencies, or industry.

Students completing the agricultural food and business management major are not eligible to add a second major in applied economics due to course overlap.

Students majoring in agricultural and food business management and applied economics cannot minor in either of the department minors (AFBM or APEC). We highly encourage students to pursue a University-wide minor or, if they are in AFBM, one of the department-specific minors offered through CSOM.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Admission Requirements

Students must complete 30 credits before admission to the program.

Freshman and transfer students are usually admitted to pre-major status before admission to this major

A GPA above 2.0 is preferred for the following:

- 2.50 already admitted to the degree-granting college
- 2.50 transferring from another University of Minnesota college
- 2.50 transferring from outside the University

Students are admitted to the major after satisfactory completion of a pre-agricultural and food business management program. Admission standards are developed in conjunction with the Carlson School of Management.

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

Required prerequisites

Admission Requirements

Students must complete the following management "tool" courses taken A-F before entering the program and earn a GPA of at least 2.50 in these courses.

- APEC 1101 - Principles of Microeconomics [SOCS, GP] (4.0 cr)
 - or APEC 1101H - Principles of Microeconomics [SOCS, GP] (4.0 cr)
 - or ECON 1101 - Principles of Microeconomics [SOCS, GP] (4.0 cr)
- APEC 1102 - Principles of Macroeconomics (3.0 cr)
 - or ECON 1102 - Principles of Macroeconomics (4.0 cr)
- MATH 1142 - Short Calculus [MATH] (4.0 cr)



or [MATH 1271](#) - Calculus I [MATH] (4.0 cr)

General Requirements

All students are required to complete general University and college requirements including writing and liberal education courses. For more information about University-wide requirements, see the [liberal education requirements](#). Required courses for the major or minor in which a student receives a D grade (with or without plus or minus) do not count toward the major or minor (including transfer courses).

Program Requirements

Students may not major in both agricultural and food business management and applied economics.

At least 21 upper division credits in the major must be taken at the University of Minnesota Twin Cities campus.

Students considering graduate studies in applied economics are also encouraged to contact the graduate program (apecdgs@umn.edu) early in their college career, as additional preparation may be recommended.

Applied Economics Core

- [APEC 1001](#) - Orientation to Applied Economics (1.0 cr)
or [CFAN 3201](#) - Career and Internship Preparation (1.0 cr)
- [APEC 1201](#) - Applications of Excel in Economics and Management (1.0 cr)
- [BA 2551](#) - Business Statistics in R [MATH] (4.0 cr)
or [STAT 3011](#) - Introduction to Statistical Analysis [MATH] (4.0 cr)
- [APEC 3001](#) - Applied Microeconomics: Consumers, Producers, and Markets (4.0 cr)
- [APEC 3002](#) - Managerial Economics (4.0 cr)
or [APEC 3003](#) - Introduction to Applied Econometrics (4.0 cr)
- [APEC 4821W](#) - Business Economics and Strategy [WI] (3.0 cr)

Business Core

- [ACCT 2051](#) - Introduction to Financial Reporting (4.0 cr)
or [APEC 1251](#) - Principles of Accounting (3.0 cr)
- [FINA 3001](#) - Finance Fundamentals (3.0 cr)
or [APEC 3501](#) - Agribusiness Finance (3.0 cr)
- [SCO 3001](#) - Sustainable Supply Chain and Operations (3.0 cr)
or [APEC 3004](#) ~~(Inactive)~~ (2.0 cr)
- [ACCT 3001](#) - Strategic Management Accounting (3.0 cr)
or [MGMT 3001](#) - Fundamentals of Management (3.0 cr)
or [MKTG 3001](#) - Principles of Marketing (3.0 cr)

Communication Core

- [AECM 2421W](#) - Professional and Oral Communication for Agriculture, Food & the Environment [WI] (3.0 cr)
or [COMM 1101](#) - Introduction to Public Speaking [CIV] (3.0 cr)
- [WRIT 3562W](#) - Technical and Professional Writing [WI] (4.0 cr)
- [AECM 3431](#) - Communicating Food, Agriculture & Environmental Science to the Public (3.0 cr)
or [BA 3033W](#) - Business Communication [WI] (3.0 cr)

Experiential Learning

- [AECM 3096](#) ~~(Inactive)~~ (1.0 - 3.0 cr)
or [AECM 4011](#) ~~(Inactive)~~ (2.0 cr)
- or [CFAN 4096](#) - Reflecting on Your Professional Experience (1.0 cr)
- or [CFAN 3096](#) - Making the Most of your Professional Experience (1.0 cr)

Interdisciplinary Learning

- [APEC 3202](#) - An Introduction to the Food System: Analysis, Management and Design (3.0 cr)
or [ESPM 1011](#) - Issues in the Environment [ENV] (3.0 cr)
or [FSCN 1102](#) - Food: Safety, Risks, and Technology [CIV] (3.0 cr)
- or [GCC 3017](#) - World Food Problems: Agronomics, Economics and Hunger [GP] (3.0 cr)
- or [GCC 5008](#) - Policy and Science of Global Environmental Change [ENV] (3.0 cr)
- or [ANSC 3203W](#) - Environment, Global Food Production, and the Citizen [GP, WI] (3.0 cr)
or [AGRO 3203W](#) - Environment, Global Food Production, and the Citizen [GP, WI] (3.0 cr)

Upper Division Writing Intensive within the major

Students are required to take one upper division writing intensive course within the major. If that requirement has not been satisfied within the core major requirements, students must choose one course from the following list. Some of these courses may also fulfill



other major requirements.

Take no more than 1 course(s) from the following:

- [ANSC 3203W](#) - Environment, Global Food Production, and the Citizen [GP, WI] (3.0 cr)
- [APEC 4451W](#) - Food Marketing Economics [CIV, WI] (3.0 cr)
- [APEC 4821W](#) - Business Economics and Strategy [WI] (3.0 cr)
- [BA 3033W](#) - Business Communication [WI] (3.0 cr)
- [MKTG 4081W](#) - Marketing Strategy [WI] (4.0 cr)
- [MKTG 4082W](#) - Brand Management [WI] (4.0 cr)
- [WRIT 3562W](#) - Technical and Professional Writing [WI] (4.0 cr)

Program Sub-plans

Students are required to complete one of the following sub-plans.

Agricultural Markets and Risk Management

Students must take a minimum of two APEC courses (6 cr) and a minimum of two CSOM courses (6 cr) or a CSOM minor.

Markets & Risk

Take 4 or more course(s) totaling 12 or more credit(s) from the following:

Take 2 or more course(s) totaling 6 or more credit(s) from the following:

- [APEC 3006](#) - Applied Macroeconomics: Government and the Economy (3.0 cr)
- [APEC 3007](#) - Applied Macroeconomics: Policy, Trade, and Development [GP] (3.0 cr)
- [APEC 3004](#) *{Inactive}* (2.0 cr)
- [APEC 3411](#) - Commodity Marketing (3.0 cr)
- [APEC 3811](#) - Principles of Farm Management (3.0 cr)
- [APEC 4481](#) - Futures and Options Markets (3.0 cr)
- [APEC 4501](#) *{Inactive}* (2.0 cr)
- Take 2 or more course(s) totaling 6 or more credit(s) from the following:
 - [BLAW 3061](#) - Business Law Basics (2.0 cr)
 - [BLAW 3062](#) - Contract Law and Corporate Regulation (2.0 cr)
 - [FINA 4121](#) - Financial Markets and Interest Rates (2.0 cr)
 - [FINA 4321](#) - Portfolio Management and Performance Evaluation (2.0 cr)
 - [FINA 4522](#) - Options & Derivatives I (2.0 cr)
 - [INS 4105](#) - Corporate Risk Management (2.0 cr)
 - [INS 4205](#) - Insurance Theory and Practice (2.0 cr)
 - [MGMT 3045](#) - Understanding the International Environment of Firms: International Business (2.0 cr)
 - [MGMT 4044](#) - Negotiation Strategies (4.0 cr)
 - [MKTG 3011](#) - Marketing Research (4.0 cr)
 - [MKTG 3041](#) - Buyer Behavior (4.0 cr)
 - [SCO 3045](#) - Sourcing and Supply Management (2.0 cr)
 - [SCO 3072](#) - Managing Technologies in the Supply Chain (2.0 cr)

Entrepreneurship and Business Management

Students must take a minimum of two APEC courses (6 cr) and a minimum of two CSOM courses (6 cr) or a CSOM minor.

Entrepreneurship & Business

Take 4 or more course(s) totaling 12 or more credit(s) from the following:

Take 2 or more course(s) totaling 6 or more credit(s) from the following:

- [APEC 3006](#) - Applied Macroeconomics: Government and the Economy (3.0 cr)
- [APEC 3007](#) - Applied Macroeconomics: Policy, Trade, and Development [GP] (3.0 cr)
- [APEC 3004](#) *{Inactive}* (2.0 cr)
- [APEC 3451](#) - Food and Agricultural Sales (3.0 cr)
- [APEC 3551](#) - Concept Design and Value-Added Entrepreneurship in Food, Agricultural and Natural Resource Sciences (3.0 cr)
- [APEC 3811](#) - Principles of Farm Management (3.0 cr)
- [APEC 3841](#) - Agricultural and Consumer Cooperatives and Mutuals (3.0 cr)
- [APEC 4481](#) - Futures and Options Markets (3.0 cr)
- [APEC 4501](#) *{Inactive}* (2.0 cr)
- Take 2 or more course(s) totaling 6 or more credit(s) from the following:
 - [ACCT 5201](#) - Intermediate Management Accounting (2.0 cr)
 - [BLAW 3061](#) - Business Law Basics (2.0 cr)
 - [BLAW 3062](#) - Contract Law and Corporate Regulation (2.0 cr)
 - [FINA 4221](#) - Principles of Corporate Finance (2.0 cr)
 - [HRIR 3021](#) - Human Capital Management (3.0 cr)
 - [MGMT 3015](#) - Introduction to Entrepreneurship (4.0 cr)
 - [MGMT 4008](#) - Entrepreneurial Management (4.0 cr)



- [MKTG 3011](#) - Marketing Research (4.0 cr)

Financial Analysis and Business Management

Students must take a minimum of two APEC courses (6 cr) and a minimum of two CSOM courses (6 cr) or a CSOM minor.

Financial Management

Take 4 or more course(s) totaling 12 or more credit(s) from the following:

Take 2 or more course(s) totaling 6 or more credit(s) from the following:

- [APEC 3006](#) - Applied Macroeconomics: Government and the Economy (3.0 cr)
- [APEC 3007](#) - Applied Macroeconomics: Policy, Trade, and Development [GP] (3.0 cr)
- [APEC 3004](#) ~~{Inactive}~~(2.0 cr)
- [APEC 3811](#) - Principles of Farm Management (3.0 cr)
- [APEC 4481](#) - Futures and Options Markets (3.0 cr)
- [APEC 4501](#) ~~{Inactive}~~(2.0 cr)
- [APEC 5751](#) ~~{Inactive}~~(3.0 cr)
- Take 2 or more course(s) totaling 6 or more credit(s) from the following:
 - [ACCT 5101](#) - Intermediate Accounting I (4.0 cr)
 - [ACCT 5102](#) - Intermediate Accounting II (4.0 cr)
 - [ACCT 5161](#) - Financial Statement Analysis (2.0 cr)
 - [BLAW 3061](#) - Business Law Basics (2.0 cr)
 - [BLAW 3062](#) - Contract Law and Corporate Regulation (2.0 cr)
 - [FINA 4121](#) - Financial Markets and Interest Rates (2.0 cr)
 - [FINA 4122](#) - Banks, Banking Services, and FinTech (2.0 cr)
 - [FINA 4221](#) - Principles of Corporate Finance (2.0 cr)
 - [FINA 4321](#) - Portfolio Management and Performance Evaluation (2.0 cr)
 - [FINA 4522](#) - Options & Derivatives I (2.0 cr)
 - [FINA 4622](#) - International Finance (2.0 cr)
 - [INS 4105](#) - Corporate Risk Management (2.0 cr)
 - [INS 4205](#) - Insurance Theory and Practice (2.0 cr)

Food Sales and Industry Management

Students must take a minimum of two APEC courses (6 cr) and a minimum of two CSOM courses (6 cr) or a CSOM minor.

Food Sales & Industry Management

Take 4 or more course(s) totaling 12 or more credit(s) from the following:

Take 2 or more course(s) totaling 6 or more credit(s) from the following:

- [APEC 3006](#) - Applied Macroeconomics: Government and the Economy (3.0 cr)
- [APEC 3007](#) - Applied Macroeconomics: Policy, Trade, and Development [GP] (3.0 cr)
- [APEC 3004](#) ~~{Inactive}~~(2.0 cr)
- [APEC 3451](#) - Food and Agricultural Sales (3.0 cr)
- [APEC 3811](#) - Principles of Farm Management (3.0 cr)
- [APEC 4451W](#) - Food Marketing Economics [CIV, WI] (3.0 cr)
- [APEC 4501](#) ~~{Inactive}~~(2.0 cr)
- [APEC 4461](#) - Horticultural Marketing (3.0 cr)
- [HORT 4461](#) - Horticultural Marketing (3.0 cr)
- Take 2 or more course(s) totaling 6 or more credit(s) from the following:
 - [MKTG 3011](#) - Marketing Research (4.0 cr)
 - [MKTG 3041](#) - Buyer Behavior (4.0 cr)
 - [MKTG 4031](#) - Sales Management (4.0 cr)
 - [MKTG 4051](#) - Advertising and Promotion (4.0 cr)
 - [MKTG 4061](#) - Marketing Channels (4.0 cr)
 - [MKTG 4081W](#) - Marketing Strategy [WI] (4.0 cr)
 - [MKTG 4082W](#) - Brand Management [WI] (4.0 cr)
 - [SCO 3045](#) - Sourcing and Supply Management (2.0 cr)
 - [SCO 3056](#) - Supply Chain Planning and Control (4.0 cr)
 - [SCO 3072](#) - Managing Technologies in the Supply Chain (2.0 cr)

Individualized

A program of study under this emphasis must be approved by the major coordinator. The Individualized Emphasis is 12 credits and must include 6 credits of upper division APEC electives (excluding 3001, 3002, 3003, 3501, and 4821) and 6 credits from the Carlson School or a CSOM minor. Emphasis area courses require a grade of C- or better.

Individualized Area

Select 12 credits from individual electives
12 credits from individual electives



Integrated BS-Agricultural and Food Business Management/MS-Applied Economics

This sub-plan is optional and does not fulfill the sub-plan requirement for this program.

The department offers an integrated Bachelor of Science-Agricultural and Food Business Management and Master of Science-Applied Economics. Students accepted to the integrated program will be guaranteed admission to the M.S. as long as they complete their undergraduate program. Accepted students will not need to take the GRE exam as part of their graduate application, unlike other students applying to the graduate programs.

Applicants must be enrolled University of Minnesota Twin Cities students admitted to the AFBM undergraduate program and meet a technical GPA of 3.0. Applicants must have 90 credits completed or in progress at the time of their application, with the following classes completed with a minimum grade of a C by the end of the spring semester of their junior year:

-APEC 3001 or ECON 3101 (AFBM students may have already taken APEC 3001, as it is included in the Applied Economics Core in the AFBM B.S.)

-SCO 2550 or STAT 3011 (AFBM students may have already taken one of these courses, as they are included in the Applied Economics Core in the AFBM B.S.)

-MATH 1142 or [MATH 1271 and MATH 1272] or [MATH 1371 and MATH 1372] (AFBM students may have already taken MATH 1142 or MATH 1271, as they are included in the Required Prerequisites/Admission Requirements in the AFBM B.S.)

Full application instructions can be found at: www.apec.umn.edu/graduate-program/idp.

Students pursuing the integrated degree may apply between 9 and 16 graduate-level (5xxx-level and above) credits taken during the integrated senior year toward MS degree requirements. Students must spend a minimum of two semesters as a graduate student after the completion of their undergraduate degree.

Required Courses

Students should take the following courses/requirements to apply toward their graduate degree as an undergraduate integrated program student.

[APEC 5031](#) - Methods of Economic Data Analysis (3.0 cr)

[APEC 5032](#) - Economic Data Analysis for Managerial and Policy Decisions (3.0 cr)

[APEC 5151](#) - Applied Microeconomics: Firm and Household (3.0 cr)

[APEC 8901](#) - Graduate Seminar: MS & PhD (1.0 cr)

[APEC 8902](#) - Graduate Research Development Seminar (1.0 cr)