

# FOOD, AGRICULTURAL AND RESOURCE ECONOMICS (FARE)

Department of Food, Agricultural and Resource Economics, Ontario Agricultural College

The food and agriculture sector connects people with the world's natural resource base and is at the heart of many of the most pressing global issues. In this major, students will acquire the analytical and management skills needed to effectively deal with emerging issues and challenges related to food and agriculture, such as food poverty, food safety and insecurity, and sustainability. Building on an understanding of economic theory and applied methods in both the Canadian and world contexts, a variety of career opportunities arise in industry, government agencies and non-governmental organizations.

Beyond the core offering, the major provides the flexibility for students to pursue thematic areas of study, as well as an opportunity to take additional liberal arts courses. In addition, this major provides excellent background for those students planning to undertake graduate work in food, agricultural or resource economics and other fields of applied economics.

The principle aim of the Co-op program in Food, Agricultural and Resource Economics is to facilitate the transition of students from academic studies to a professional career by enhancing the integration of theory and practice.

The major is administered by the Department of Food, Agricultural and Resource Economics in the Ontario Agricultural College and students are urged to consult the faculty advisor.

## Major Learning Outcomes

Upon completion of the program, students will be able to:

- Reflect critically on the complex challenges facing the agri-food sector in Canada and internationally and the implications of these challenges for agri-food policy and business decisions.
- Apply the concepts and analytical approaches of economics to the analysis of the agri-food sector and related policies in Canada and internationally.
- Identify all relevant stakeholders in the policy process and determine their needs and translate them in the framework of societal costs and benefits.
- Select and apply appropriate research methods to the analysis of agri-food markets and policies.
- Interpret the results of market and policy analysis and discuss the implications for policy and business decisions.
- Communicate effectively through written, visual and oral means with business, government and other stakeholders.
- Work independently and as part of a team to prioritize tasks and manage time while maintaining academic and professional integrity.

## Co-op Learning Outcomes

Upon completion of the program, students will be able to:

- Reflect critically on the complex challenges facing the agri-food sector in Canada and internationally and the implications of these challenges for agri-food policy and business decisions.
- Apply the concepts and analytical approaches of economics to the analysis of the agri-food sector and related policies in Canada and internationally.
- Identify all relevant stakeholders in the policy process and determine their needs and translate them in the framework of societal costs and benefits.
- Select and apply appropriate research methods to the analysis of agri-food markets and policies.
- Interpret the results of market and policy analysis and discuss the implications for policy and business decisions.
- Communicate effectively through written, visual and oral means with business, government and other stakeholders.
- Work independently and as part of a team to prioritize tasks and manage time while maintaining academic and professional integrity.
- Analyze and solve economic policy and managerial problems relating to the agri-food sector in a real-world workplace setting.
- Work effectively in the real-world workplace setting and in a manner that maintains and promotes professional integrity.
- Reflect critically on the challenges associated with the real-world workplace and relate these challenges to course-based learning within the program as a whole.

## Major Requirements (Honours)

**This is a major within the degree:** Bachelor of Arts ([calendar.uoguelph.ca/undergraduate-calendar/degree-programs/bachelor-arts-ba/](http://calendar.uoguelph.ca/undergraduate-calendar/degree-programs/bachelor-arts-ba/)).

### Credit Summary

(20.00 Total Credits)

| Code  | Title | Credits   |
|---|-------|-----------|
| Required core courses   |       | 9.50      |
| Restricted electives (from lists)                               |       | 2.00      |
| Electives (must include 1.50 Humanities from two subject areas) |       | 8.50      |
| <b>Total Credits</b>  |       | <b>20</b> |

### Recommended Program Sequence

| Code                                    | Title                                 | Credits |
|---|---------------------------------------|---------|
| <b>Semester 1</b>                       |                                       |         |
| AGR*1110                                | Introduction to the Agri-Food Systems | 1.00    |
| ECON*1050                               | Introductory Microeconomics           | 0.50    |
| 0.50 electives                          |                                       | 0.50    |
| Select 0.50 credits from the following: |                                       |         |
| MATH*1030                               | Business Mathematics                  | 0.50    |
| MATH*1080                               | Elements of Calculus I                | 0.50    |
| MATH*1200                               | Calculus I                            | 0.50    |
| <b>Semester 2</b>                       |                                       |         |
| ACCT*1220                               | Introductory Financial Accounting     | 0.50    |
| ECON*1100                               | Introductory Macroeconomics           | 0.50    |
| FARE*1300                               | Poverty, Food and Hunger              | 0.50    |
| FARE*1400                               | Economics of the Agri-Food System     | 1.00    |
| <b>Semester 3</b>                       |                                       |         |
| ECON*2310                               | Intermediate Microeconomics           | 0.50    |
| ECON*2740                               | Economic Statistics                   | 0.50    |

|  |                                      |      |
|--|--------------------------------------|------|
| 1.50 electives or restricted electives |                                      | 1.50 |
| <b>Semester 4</b>                      |                                      |      |
| ECON*2410                              | Intermediate Macroeconomics          | 0.50 |
| ECON*2770                              | Introductory Mathematical Economics  | 0.50 |
| FARE*2410                              | Agri-food Markets and Policy         | 0.50 |
| 1.00 electives or restricted electives |                                      | 1.00 |
| <b>Semester 5</b>                      |                                      |      |
| ECON*3740                              | Introduction to Econometrics         | 0.50 |
| FARE*2700                              | Survey of Natural Resource Economics | 0.50 |
| 1.50 electives or restricted electives |                                      | 1.50 |
| <b>Semester 6</b>                      |                                      |      |
| FARE*3170                              | Cost-Benefit Analysis                | 0.50 |
| 2.00 electives or restricted electives |                                      | 2.00 |
| <b>Semester 7</b>                      |                                      |      |
| FARE*3030                              | The Firm and Markets                 | 0.50 |
| 2.00 electives or restricted electives |                                      | 2.00 |
| <b>Semester 8</b>                      |                                      |      |
| FARE*4000                              | Agricultural and Food Policy         | 0.50 |
| 2.00 electives or restricted electives |                                      | 2.00 |

## Restricted Electives

A minimum of 2.00 credits from the following lists, regardless of area:

| Code  | Title  | Credits |
|---|--|---------|
| <b>Food and Agribusiness Management</b>                 |  |         |
| FARE*4220   | Advanced Agribusiness Management                       | 0.50    |
| FARE*4240   | Futures and Options Markets                            | 0.50    |
| FARE*4360   | Marketing Research                                     | 0.50    |
| FARE*4370   | Food & Agri Marketing Management                       | 0.50    |
| MGMT*3320   | Financial Management                                   | 0.50    |
| <b>Food Industry Economics and Management</b>           |  |         |
| FARE*3310   | Operations Management                                  | 0.50    |
| FARE*3320   | Supply and Value Chain Management                      | 0.50    |
| FARE*4330   | Advanced Operations Management in the Agri-Food Sector | 0.50    |
| FARE*4380   | Agri-Food Retailing, Merchandising and Sales           | 0.50    |
| FARE*4500   | Decision Science                                       | 0.50    |
| <b>International Agricultural Development Economics</b> |  |         |
| ECON*2650   | Introductory Development Economics                     | 0.50    |
| FARE*3000   | International Food Sector and Policy Analysis          | 0.50    |
| FARE*3250   | Food Security, Nutrition and International Development | 0.50    |
| <b>Resource Economics</b>                               |  |         |
| ECON*4930   | Environmental Economics                                | 0.50    |
| FARE*4290   | Land Economics   | 0.50    |
| FARE*4310   | Resource Economics                                     | 0.50    |
| <b>Experiential Learning</b>                            |  |         |
| ENVS*3330   | Flexible Environmental Internship                      | 0.50    |
| IAEF*3500   | Experiential Education                                 | 0.50    |
| UNIV*3140   | Flexible Internship in Agri-Food                       | 0.50    |

**Notes:** A student may obtain permission to substitute certain other courses for the ones listed if the substitute courses fit with the students' program. Approval from a departmental advisor is required. Unless taken to satisfy the requirements of another program, no student may receive credit in this program for more than one of the following statistics prerequisites ECON\*2740 Economic Statistics, STAT\*2040 Statistics I, STAT\*2060 Statistics for Business Decisions, or STAT\*2080 Introductory Applied Statistics I.

## Co-op Requirements (Honours)

**This is a major within the degree:** Bachelor of Arts ([calendar.uoguelph.ca/undergraduate-calendar/degree-programs/bachelor-arts-ba/](http://calendar.uoguelph.ca/undergraduate-calendar/degree-programs/bachelor-arts-ba/)).

The Co-op program in Food, Agricultural and Resource Economics is a five year program, including five work terms. Students must follow the academic work schedule as outlined below (also found on the Co-operative Education website: <https://www.recruitguelph.ca/cecs/>).

## Academic and Co-op Work Term Schedule

| Year | Fall                           | Winter                 | Summer                  |
|------|--------------------------------|------------------------|-------------------------|
| 1    | Academic Semester 1            | Academic Semester 2    | Off                     |
| 2    | Academic Semester 3, COOP*1100 | Academic Semester 4    | COOP*1000 Work Term I   |
| 3    | COOP*2000 Work Term II         | Academic Semester 5    | COOP*3000 Work Term III |
| 4    | Academic Semester 6            | COOP*4000 Work Term IV | COOP*5000 Work Term V   |
| 5    | Academic Semester 7            | Academic Semester 8    | N/A                     |

Please refer to the Co-operative Education program policy with respect to work term performance grading, work term report grading and program completion requirements.

For additional program information students should consult with their Co-op Co-ordinator and Co-op Faculty Advisor, listed on the Co-operative Education web site.

## Credit Summary

(22.50 Total Credits)

| Code  | Title | Credits     |
|---|-------|-------------|
| Required Core Courses   |       | 9.50        |
| Restricted Electives (minimum 0.50 credits at the 4000 level) |       | 2.00        |
| Free Electives  |       | 7.00        |
| Humanities (over at least two subject areas)                  |       | 1.50        |
| Co-op Work Terms  |       | 2.50        |
| <b>Total Credits</b>  |       | <b>22.5</b> |

## Recommended Program Sequence

| Code                     | Title                                 | Credits |
|--------------------------|---------------------------------------|---------|
| <b>Semester 1 - Fall</b> |                                       |         |
| AGR*1110                 | Introduction to the Agri-Food Systems | 1.00    |
| ECON*1050                | Introductory Microeconomics           | 0.50    |
| 0.50 electives           |                                       | 0.50    |

Select 0.50 credits from the following:

|  |  |      |
|--|--|------|
| MATH*1030                              | Business Mathematics                   | 0.50 |
| MATH*1080                              | Elements of Calculus I                 | 0.50 |
| MATH*1200                              | Calculus I                             | 0.50 |
| <b>Semester 2 - Winter</b>             |  |      |
| ACCT*1220                              | Introductory Financial Accounting      | 0.50 |
| ECON*1100                              | Introductory Macroeconomics            | 0.50 |
| FARE*1300                              | Poverty, Food and Hunger               | 0.50 |
| FARE*1400                              | Economics of the Agri-Food System      | 1.00 |
| <b>Summer Semester</b>                 |  |      |
| No academic semester or work term      |  |      |
| <b>Semester 3 - Fall</b>               |  |      |
| COOP*1100                              | Introduction to Co-operative Education | 0.00 |
| ECON*2310                              | Intermediate Microeconomics            | 0.50 |
| ECON*2740                              | Economic Statistics                    | 0.50 |
| FARE*2700                              | Survey of Natural Resource Economics   | 0.50 |
| 1.00 electives or restricted electives |  | 1.00 |
| <b>Semester 4 - Winter</b>             |  |      |
| ECON*2410                              | Intermediate Macroeconomics            | 0.50 |
| ECON*2770                              | Introductory Mathematical Economics    | 0.50 |
| FARE*2410                              | Agri-food Markets and Policy           | 0.50 |
| 1.00 electives or restricted electives |  | 1.00 |
| <b>Summer Semester</b>                 |  |      |
| COOP*1000                              | Co-op Work Term I                      | 0.50 |
| <b>Fall Semester</b>                   |  |      |
| COOP*2000                              | Co-op Work Term II                     | 0.50 |
| <b>Semester 5 - Winter</b>             |  |      |
| FARE*3170                              | Cost-Benefit Analysis                  | 0.50 |
| 2.00 electives or restricted electives |  | 2.00 |
| <b>Summer Semester</b>                 |  |      |
| COOP*3000                              | Co-op Work Term III                    | 0.50 |
| <b>Semester 6 - Fall</b>               |  |      |
| ECON*3740                              | Introduction to Econometrics           | 0.50 |
| 2.00 electives or restricted electives |  | 2.00 |
| <b>Winter Semester</b>                 |  |      |
| COOP*4000                              | Co-op Work Term IV                     | 0.50 |
| <b>Summer Semester</b>                 |  |      |
| COOP*5000                              | Co-op Work Term V                      | 0.50 |
| <b>Semester 7 - Fall</b>               |  |      |
| FARE*3030                              | The Firm and Markets                   | 0.50 |
| 2.00 electives or restricted electives |  | 2.00 |
| <b>Semester 8 - Winter</b>             |  |      |
| FARE*4000                              | Agricultural and Food Policy           | 0.50 |
| 2.00 electives or restricted electives |  | 2.00 |

## Restricted Electives

A minimum of 2.00 credits from the following list, regardless of area:

| Code                                    | Title                            | Credits |
|---|----------------------------------|---------|
| <b>Food and Agribusiness Management</b> |                                  |         |
| FARE*4220                               | Advanced Agribusiness Management | 0.50    |
| FARE*4240                               | Futures and Options Markets      | 0.50    |
| FARE*4360                               | Marketing Research               | 0.50    |
| FARE*4370                               | Food & Agri Marketing Management | 0.50    |

|   |  |      |
|---|--|------|
| MGMT*3320   | Financial Management                                   | 0.50 |
| <b>Food Industry Economics and Management</b>           |  |      |
| FARE*3310   | Operations Management                                  | 0.50 |
| FARE*3320   | Supply and Value Chain Management                      | 0.50 |
| FARE*4330   | Advanced Operations Management In the Agri-Food Sector | 0.50 |
| FARE*4380   | Agri-Food Retailing, Merchandising and Sales           | 0.50 |
| FARE*4500   | Decision Science                                       | 0.50 |
| <b>International Agricultural Development Economics</b> |  |      |
| ECON*2650   | Introductory Development Economics                     | 0.50 |
| FARE*3000   | International Food Sector and Policy Analysis          | 0.50 |
| FARE*3250   | Food Security, Nutrition and International Development | 0.50 |
| <b>Resource Economics</b>                               |  |      |
| ECON*4930   | Environmental Economics                                | 0.50 |
| FARE*4290   | Land Economics   | 0.50 |
| FARE*4310   | Resource Economics                                     | 0.50 |

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