

Program Guide





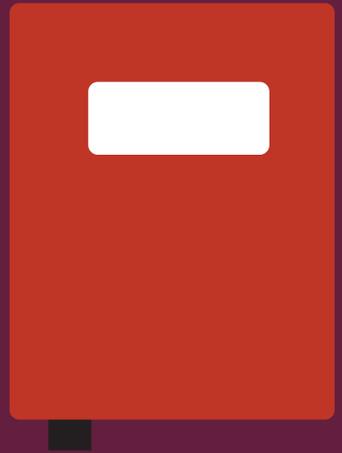
\$40 M

IN ANNUAL
RESEARCH FUNDING



25+

PROGRAMS



FOUNDED IN

1915



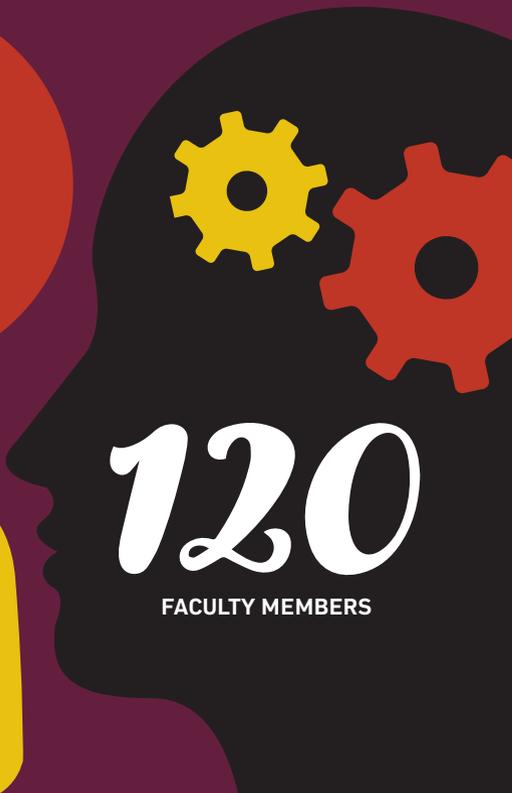
\$700 K

IN SCHOLARSHIPS &
AWARDS EACH YEAR



62

INTERNATIONAL
AGREEMENTS
FOR RESEARCH
COLLABORATION &
STUDENT MOBILITY



120

FACULTY MEMBERS

1600

UNDERGRADUATE
STUDENTS

Find a Job You Love

A DEGREE IN ALES PREPARES YOU FOR THE REAL WORLD.

Our grads secure jobs in major employment sectors including environment, animal care, food and agriculture, and human services — whether they are working for business, government, or the non-profit sector.

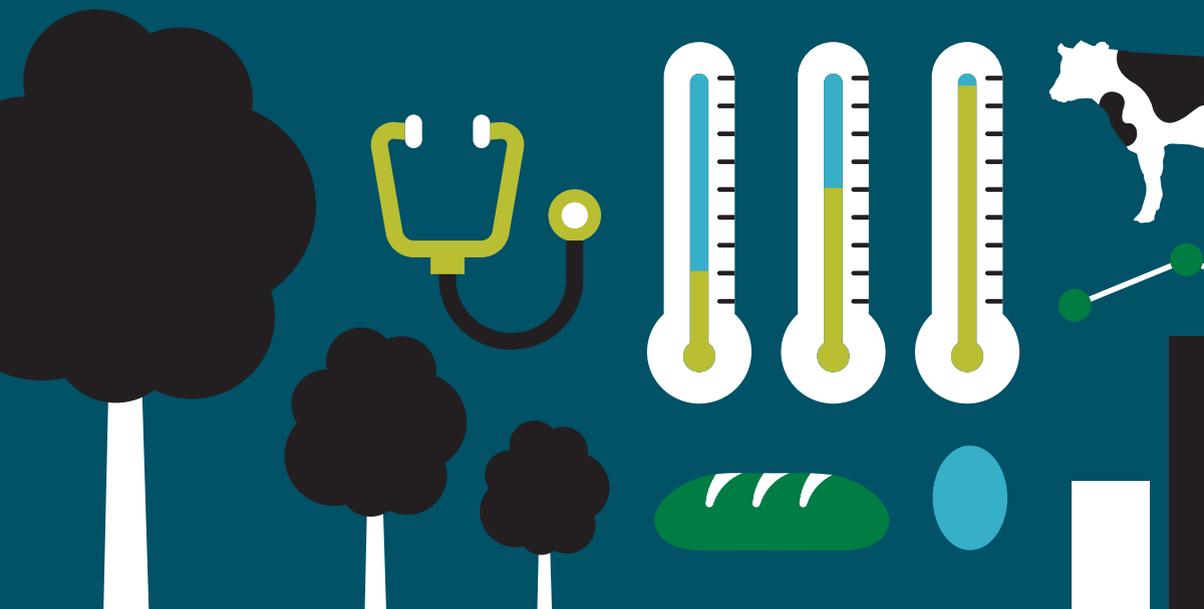
Many of our graduates qualify for professional designations including Professional Agrologist, Professional Biologist, Professional Human Ecologist, Registered Dietitian, Registered Professional Forester and more. This qualification in addition to your ALES degree makes you even more competitive in the employment market.

Challenge Yourself

A DEGREE IN ALES CHALLENGES YOU TO FIND SOLUTIONS FOR REAL-LIFE PROBLEMS.

You will be challenged by some of the best professors in Canada to connect social and scientific theory with real-world problems. You will gain important technical skills, complete training in the field and connect with industry. Our hands-on components give you the opportunity to apply the knowledge you've gained in class and prepare you for life beyond the classroom.

In ALES, we also offer international field courses, practicums and paid internships. We challenge our students to take what they've learned into the community and abroad, to provide solutions for global challenges.



Get Connected

A DEGREE IN ALES WILL ENGAGE YOU IN THE UALBERTA COMMUNITY.

Founded in 1915, we are located in the heart of the University of Alberta. You can take advantage of all the resources and state-of-the-art facilities in a major research institution and enjoy the personal attention and connection that comes from being in a close-knit faculty. With only 1,600 undergraduate students, our average class size is below 30 students so you can get to know your classmates and professors.

We want every ALES student to feel engaged and challenged by their experience at UAlberta. In our Faculty, you will have the chance to be paired with an upper-year classmate in a mentorship program and take part in community service-learning activities in your community or abroad.

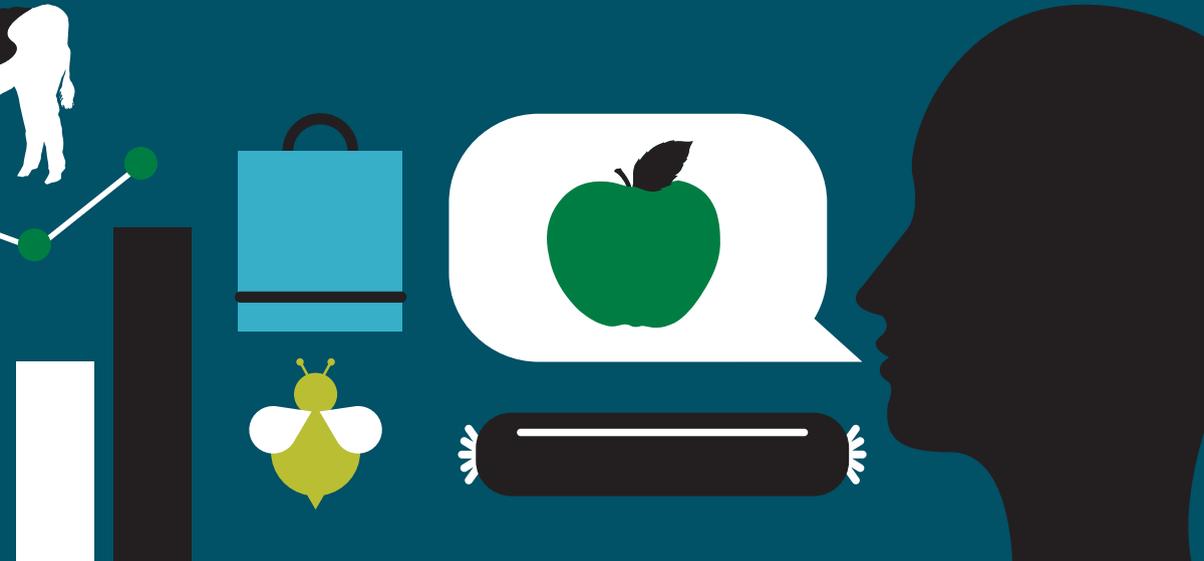
You will also have the chance to join one of our Faculty's many student groups and attend their social and professional networking events — where you can meet friends and connect with industry professionals.

Fund Your Future

YOU COULD BE ELIGIBLE FOR SCHOLARSHIPS AND AWARDS.

By joining the Faculty of Agricultural, Life & Environmental Sciences, you will have access to one of the largest Faculty scholarship programs at the University of Alberta, with awards available during all four years of your degree program.

Each year we give away over \$700,000 in scholarships and awards. You will be automatically considered for some of these awards through your application to the University of Alberta. To be considered for one of our other hundreds of scholarships and awards, submit an application available on our website!



Something For Everyone

PROGRAMS & DEGREES

-  Agricultural and Resource Economics
-  Agricultural Business Management
-  Animal Science
-  Clothing, Textiles and Material Culture
-  Companion and Performance Animals
-  Conservation Biology
-  Crop Science
-  Dietetics
-  Environment and Peoples of Canada
-  Environmental Economics and Policy
-  Family Science
-  Fashion Business Management
-  Food and Society
-  Food Animals
-  Food Business Management
-  Food Science and Technology
-  Forest Business Management
-  Forestry
-  Human Dimensions of Environmental Management
-  Land Reclamation
-  Nutrition and Food Science
-  Politics, Society and the Global Environment
-  Pre-Veterinary Medicine
-  Sustainable Agricultural Systems
-  Wildlife and Rangeland Resources Management

Let's Talk!

NEED MORE INFORMATION? WE'D LOVE TO HEAR FROM YOU.



780.492.4933



ales.ualberta.ca



questions.ales@ualberta.ca



Undergraduate Student Services

University of Alberta
2-06 Agriculture Forestry Centre
Edmonton, AB
T6G 2P5

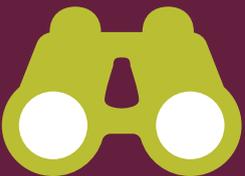
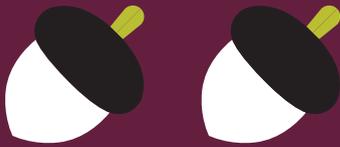
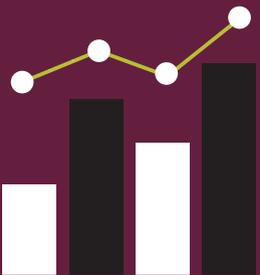
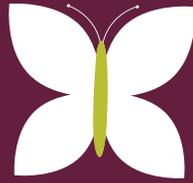
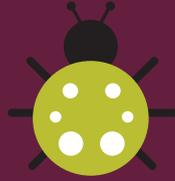


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[@UofAALES](https://twitter.com/UofAALES)





Forestry & Forest Business Management



Become a Registered Professional Forester and provide leadership in sustainably managing forest landscapes. Enhance your experience through hands-on learning and engaging with industry professionals.

Careers

- ♥ Forester
- ♥ Forest Health Specialist
- ♥ Land Use Planner
- ♥ Forest Resource Policy Analyst
- ♥ Water Resources Scientist
- ♥ Forest Renewal Specialist
- ♥ Wildland Recreation Manager
- ♥ Aboriginal/Community Relations Specialist
- ♥ Forest Economist
- ♥ Wildfire Specialist
- ♥ Forestry Management Professional

Degree Programs

FORESTRY

The BSc Forestry prepares students to manage forested areas for long-term sustainability of not only timber, but also ecological, social and cultural values. The program includes courses in forest management, silviculture, forest policy, conservation, and ecology, as well as two field school experiences.

FOREST BUSINESS MANAGEMENT

The BSc Forest Business Management provides students with the analytical, scientific, and broad educational foundations in business and forestry. The forestry component includes courses in areas such as ecology, forest biology and management. The business management component consists of introductory and advanced courses in business, including accounting, finance, marketing, and human resources.

This degree is jointly offered with the Alberta School of Business. Students wishing to pursue forestry who also want to develop their business management skills are encouraged to apply after their 1st year of university.





Environmental & Conservation Sciences



Develop solutions for environmental issues such as climate change, land and water use, and biodiversity conservation. You will also have the opportunity to participate in field schools to develop hands-on skills.

Careers

- ♥ Land Reclamation Specialist
- ♥ Environmental Consultant
- ♥ Wildlife/Conservation Biologist
- ♥ Soil Scientist
- ♥ Sustainability Coordinator
- ♥ Park Warden
- ♥ Policy Analyst
- ♥ Land Use Planner
- ♥ Environmental Impact Assessor
- ♥ Agrologist
- ♥ Environmental Education Programmer
- ♥ Environmental/Aboriginal Relations Advisor

Program Majors

CONSERVATION BIOLOGY

Students in the Conservation Biology major apply the principles of biology, ecology, social science, economics, and statistics to the conservation of species and landscapes. From ecosystem management to endangered species conservation, they prepare themselves to help protect natural spaces and to promote ecological wellbeing for the benefit of all.

ENVIRONMENTAL ECONOMICS AND POLICY

Develop skills in the economic analysis and policy process associated with environmental issues. Students learn how to consider the economic, social, political and legal background when addressing environmental concerns within an analytical framework.

HUMAN DIMENSIONS OF ENVIRONMENTAL MANAGEMENT

Learn how to use collective action, institutions, policy and management approaches to address challenges in environmental and natural resource management. Students develop a scientific understanding of environmental change with a focus on the social context through which environmental issues are addressed.

LAND RECLAMATION

Combine the natural and social sciences to understand, assess, and minimize the impacts of human activities on natural resources, with an emphasis on soil, plant and water health. Students learn how to apply remediation, soil reclamation, re-vegetation and conservation measures to restore and maintain quality environments.

WILDLIFE & RANGELAND MANAGEMENT

Learn to manage soil, plant, and animal relationships on both private and public lands. Gain an understanding of multiple use issues including grazing, intensive agriculture, forestry, and recreational activities. Examine how to improve both productivity and sustainability within an ecosystem management framework.

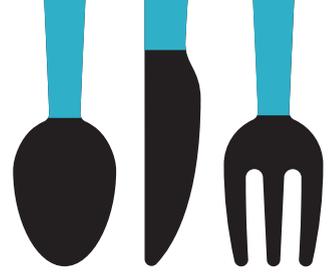
BSC ENVIRONMENTAL CONSERVATION / BA NATIVE STUDIES

Learn how Aboriginal history, politics, and cultural values influence natural resource management. Promote stewardship of Aboriginal lands within the context of government policies and industrial development.





Nutrition & Food Science



Apply your knowledge and skills while completing real-world projects and case studies that examine issues faced by the food industry and nutritional health sector. Enhance your learning by participating in one of our many internship opportunities.

Careers

- ♥ Nutrition Consultant
- ♥ Registered Dietitian
- ♥ Nutrition/Food Science Research
- ♥ Food Product Developer
- ♥ Food Market Researcher
- ♥ Food and Nutrition Policy
- ♥ Food Inspector
- ♥ Community Educator
- ♥ Nutrition Research Coordinator
- ♥ Food Quality Assurance Officer
- ♥ Food Safety Specialist

Program Majors

GENERAL PROGRAM

Develop fundamental knowledge in chemistry, physics, biology, physiology, microbiology and behavioural science, and how these are applied in the study of nutrition and health, and food science related to engineering, preservation and product development. Students become qualified for careers in the public or private sector ranging from nutrition-health education to the agriculture-food industry.

DIETETIC SPECIALIZATION

Specialize in how the body processes and uses nutrients, and how food choices can help promote human health and wellness. This health science specialization trains students in the knowledge and practical skills to become a Registered Dietitian.

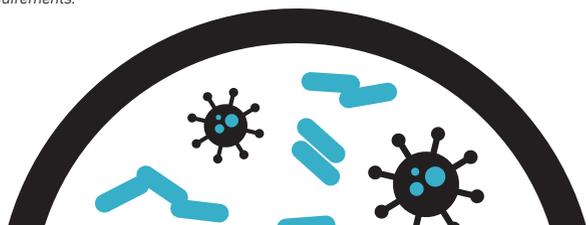
FOOD SCIENCE AND TECHNOLOGY SPECIALIZATION

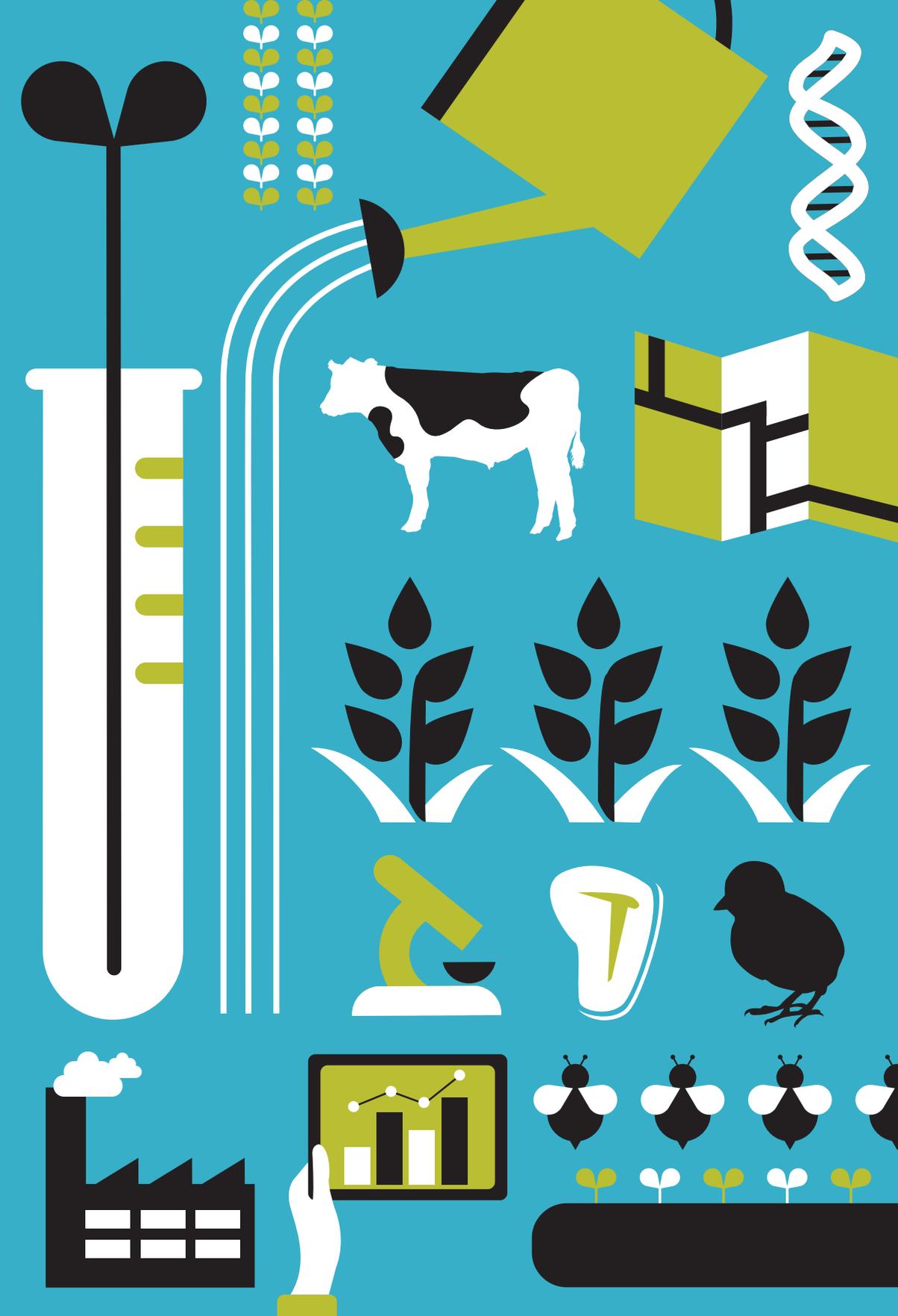
Apply chemistry, microbiology, and engineering to the technological processes used in the manufacturing, preservation, storage and distribution of food. Students also learn about food product development, sensory analysis, food safety, and nutritional content analysis as they focus on the science of producing quality food products.

HONORS IN NUTRITION OR FOOD SCIENCE

These programs are designed for students that are highly motivated, have high academic achievement, and a keen interest in pursuing research. Honors programs offer specialized academic and research training, and can prepare students for entry to other programs and postgraduate studies.

Specialization and Honors programs require one year of pre-professional studies. First year students are advised to apply to the Nutrition and Food Science General Program to complete these requirements.





Agriculture



Get great hands-on experience through our extensive network of plant and animal research facilities.

Careers

- 🍷 Plant/Animal/Soil Scientist
- 🍷 Land Use Planner
- 🍷 Production Specialist
- 🍷 Agrologist
- 🍷 Environmental Consultant
- 🍷 Market Development Officer
- 🍷 Policy Analyst
- 🍷 Public Education Specialist
- 🍷 Regulatory Affairs Advisor
- 🍷 Sales and Marketing Manager

Program Majors

AGRICULTURAL AND RESOURCE ECONOMICS

Learn how to apply economic tools to production, processing, marketing and financing, and consumption in the agri-food and other resource industries. Students develop analytical techniques that permit them to understand and assess a wide variety of policy and market issues.

ANIMAL SCIENCE*

Gain an understanding of the scientific disciplines of animal science including physiology, genetics, biochemistry, nutrition and behaviour. Students learn how to integrate problem solving skills in animal production systems including dairy, swine, beef, poultry and diversified livestock.

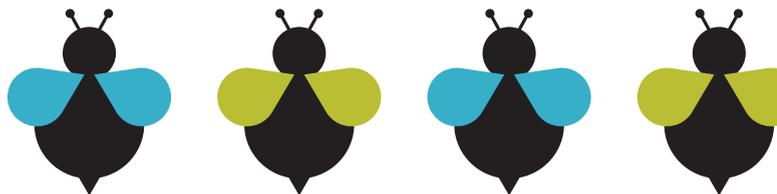
CROP SCIENCE

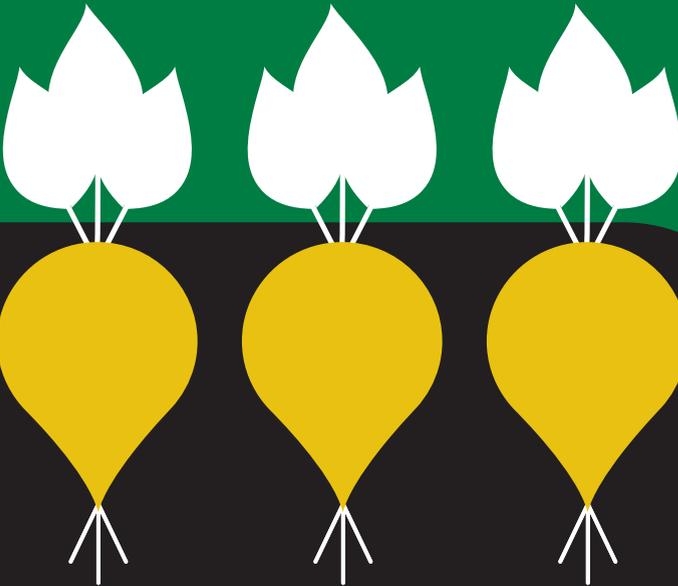
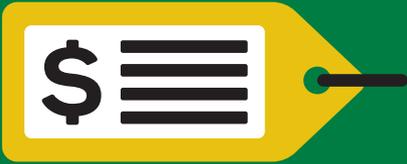
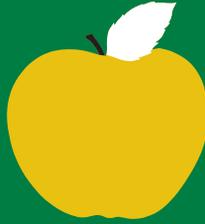
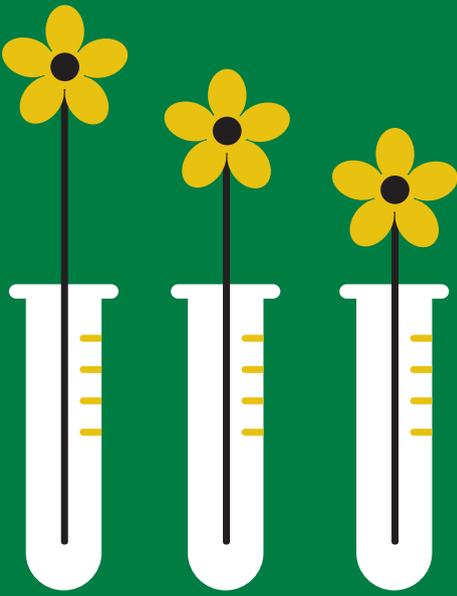
Provides an in-depth understanding of plant growth, soils, and factors affecting plant production. Students learn about plant biotechnology, breeding and production management techniques used to develop, grow and market high quality and high yielding crops.

SUSTAINABLE AGRICULTURAL SYSTEMS

Maintain and enhance the performance of agricultural systems (including people, plants, animals, soil, water and other resources) so that resource use is efficient and sustainable. Key areas of study include agricultural production systems, natural resource management, and the relationship of these to social and economic systems.

**Students may complete all pre-veterinary course requirements in this major.*





Agricultural & Food Business Management



This degree is jointly offered with the Alberta School of Business. Students wishing to combine the study of life science and business together in one program for a competitive edge are encouraged to apply after they have completed their 1st year of university.

Program Majors

AGRICULTURAL BUSINESS MANAGEMENT

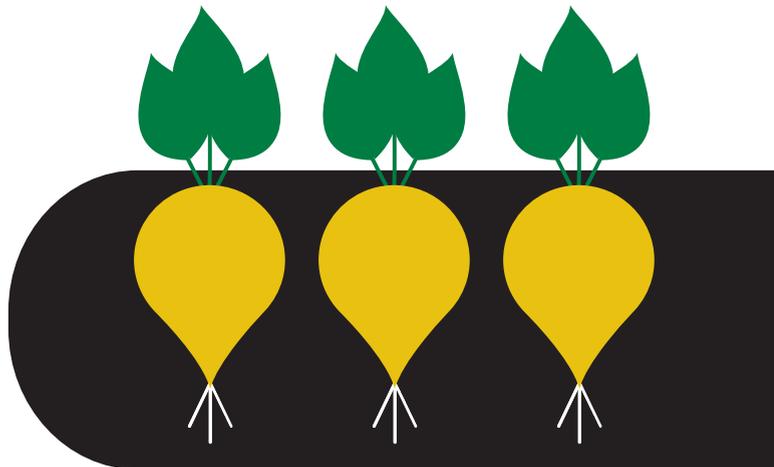
Develop an appreciation of the importance of both scientific and economic relationships within the agri-food sector. Courses in agricultural and resource economics as well as animal, plant and soil sciences develop the business management skills and scientific understanding needed to manage organizations effectively and efficiently within this global industry.

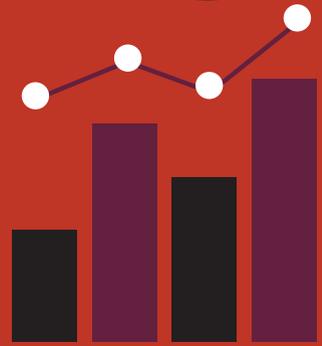
FOOD BUSINESS MANAGEMENT

Develop an understanding of the scientific and economic relationships that influence activities in the food industry. Courses in food chemistry and microbiology provide a solid scientific background that is combined with agriculture economics and business courses. Together, these skills can be applied to a career within the food processing and grocery retailing sectors.

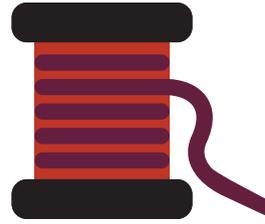
Careers

-  Management Consultant
-  Market Development Specialist
-  Business Development Officer
-  Agri-Food Sales and Marketing Manager
-  Food Manufacturing/ Processing Supervisor
-  Policy Analyst
-  Commodities/Stock Trader





Human Ecology



Human Ecology explores the relationships between people and the environments they interact with. It's a fascinating, multidisciplinary, applied field of study that provides graduates with the tools necessary to understand and enhance everyday life. Tailor your experience through a focused major and a 200-hour practicum placement.

Careers

- ♥ Family Support Worker
- ♥ Child and Youth Program Coordinator
- ♥ Policy Analyst
- ♥ Seniors Support Worker
- ♥ Community Developer
- ♥ Fashion Marketer or Buyer
- ♥ Retail Manager
- ♥ Interior Decorator
- ♥ Historic Sites or Theatre Costume Designer
- ♥ Textile Quality Control Manager
- ♥ Clothing Construction Instructor or Designer

Program Majors

CLOTHING, TEXTILES AND MATERIAL CULTURE

Learn how textiles and clothing are designed, produced, distributed and used. Develop skills and understanding of garment design and construction. Examine issues such as quality assurance, sustainability and fair labour practices in the global fashion and textile industries, and study the latest technological advances in textile materials. You'll also develop an understanding of how textiles and clothing affect our comfort and sense of wellbeing and how they've been used throughout history.

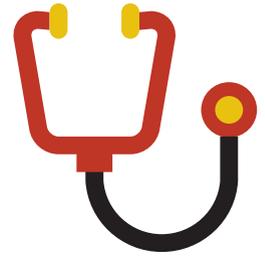
FAMILY SCIENCE

There is no other environment that affects people as profoundly as family. Learn about family strengths, issues, and intervention techniques across the lifespan. Students develop understanding and skills in areas that include parent-child relationships, family relations, program planning, community diversity, community development, sexuality, family challenges, aging, and family finances.





Animal Health



Understand the biology and behaviour of large animals or companion animals, as well as the human-animal bond. Discover the connection between animal health and the safety of the food supply.

Program Majors

COMPANION AND PERFORMANCE ANIMALS

These animals are found in search and rescue, sport, animal assisted therapy, and service to improve the well-being of individuals. Develop an understanding of the physiology, nutrition, behaviour and evolving role of companion and performance animals, as well as the sociology/psychology of the human-animal bond.

FOOD ANIMALS

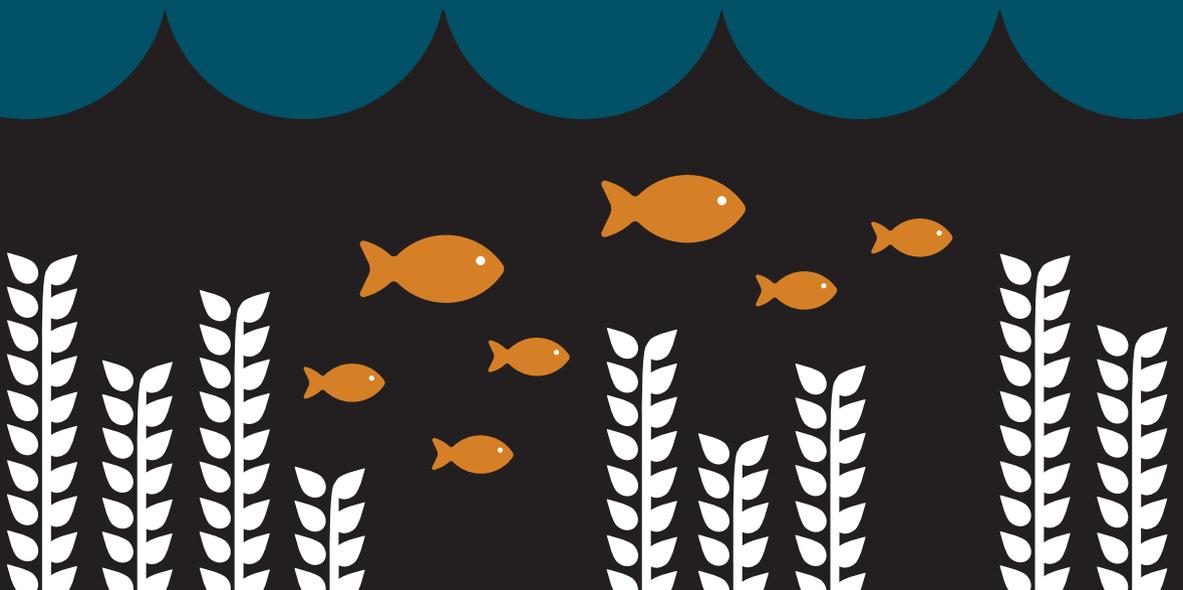
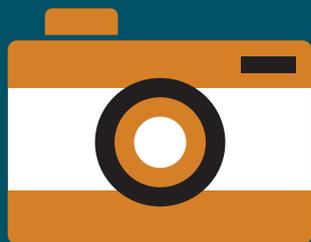
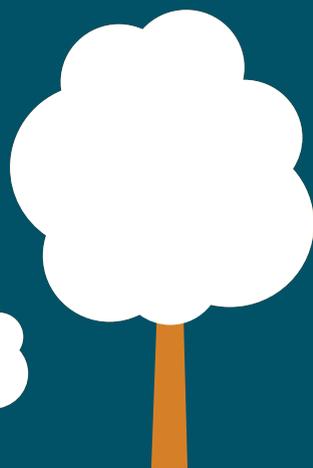
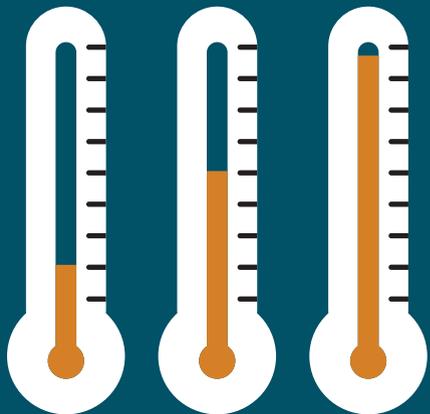
Learn how the animal agriculture (livestock and poultry) and food industries interface, through an understanding of animal and human disease, animal nutrition, microbiology, physiology, behaviour and production. Students work closely with agricultural animals and have many opportunities for industry interaction.

* Students may complete all pre-veterinary course requirements in this degree.

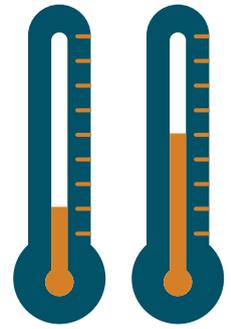
Careers

- 👉 Animal Welfare Officer
- 👉 Animal Nutritionist
- 👉 Production Specialist
- 👉 Pharmaceutical Researcher
- 👉 Commodity Inspector
- 👉 Policy Analyst
- 👉 Animal Shelter Director
- 👉 Animal Behaviour Consultant
- 👉 Animal/Pet Sector Sales & Marketing Manager





Environmental Studies



This degree is jointly offered with the Faculty of Arts. Take an interdisciplinary approach to the study of the environment and explore how interactions between science, society, culture and the economy influence environmental management decisions.

Careers

-  Community Relations Advisor
-  Sustainability Coordinator
-  Environmental Education Specialist
-  Policy Analyst
-  Environmental/Aboriginal Relations Advisor
-  Writer
-  Communications Officer

Program Concentrations

All students select one concentration for their program from the list below.

ENVIRONMENT AND PEOPLES OF CANADA

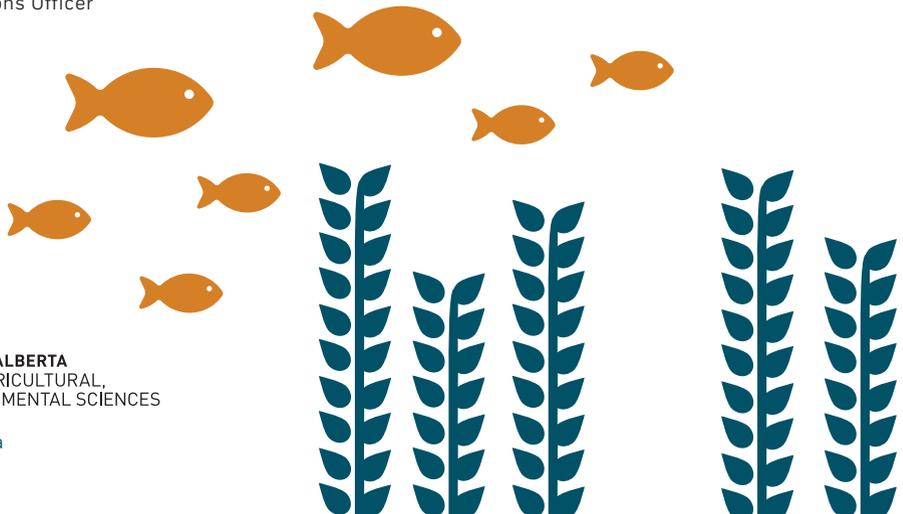
Understand environmental challenges facing Canadians, including indigenous perspectives and issues in environmental and resource management.

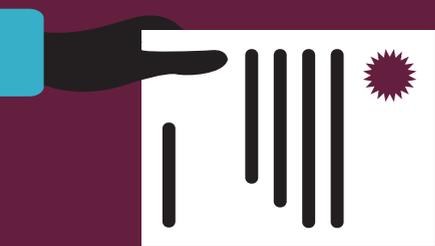
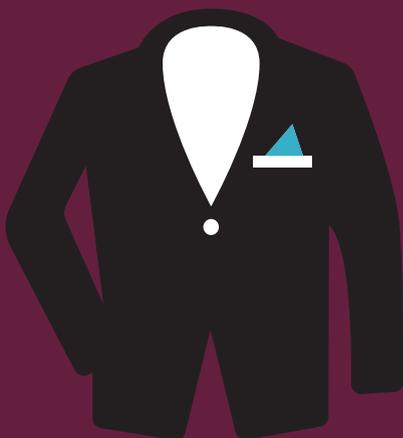
POLITICS, SOCIETY AND THE GLOBAL ENVIRONMENT

Learn about political and social methodologies relevant for understanding environmental issues from a global perspective.

FOOD AND SOCIETY

Explore issues related to sustainable food and agriculture, incorporating social, political, cultural, economic, ethical, and feminist perspectives on issues of contemporary food production.





Fashion Business Management



This unique, multi-disciplinary program is a joint initiative of the Faculty of ALES and the Alberta School of Business. Students wishing to combine the study of fashion and business for a competitive edge are eligible to apply after they have completed their first year of university.

Program Information

Prepare for a career in the increasingly business-oriented, global, and growing fashion industry. In this program, you'll gain an advanced understanding of the analytical, planning and management tools, leadership skills, and ethical values required of business professionals working in fashion industries. Additionally, students increase their understanding of the theoretical, practical, and ethical processes involved in the design, production, distribution, and consumption of textiles and clothing. If you see yourself entering the world of fashion and want to prepare for a management career or develop the skills to start your own business, the Fashion Business Management degree can help you achieve your goals.

* As this program is not available for direct entry, students are encouraged to apply to spend their first year in the BSc in Human Ecology, Clothing, Textiles & Material Culture major and then apply to transfer to this program for their second year.

Careers

- ♥ Fashion Marketing or Buying
- ♥ Product Development
- ♥ Digital Commerce
- ♥ Operations Management
- ♥ Global Sourcing and Supply Chain Management
- ♥ Data Analytics



