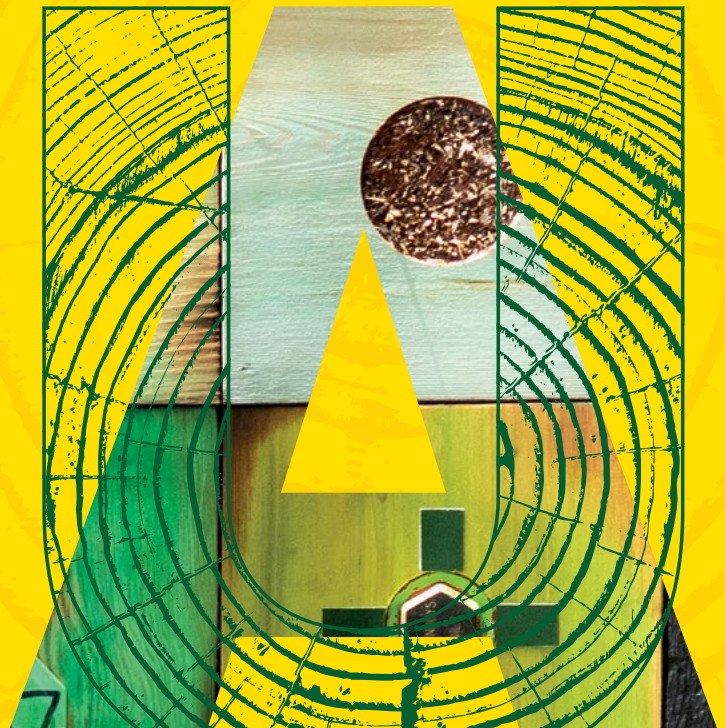




UNIVERSITY
OF ALBERTA

AGRICULTURAL, LIFE & ENVIRONMENTAL SCIENCES

VIEWBOOK 2024 - 2025



WE ARE

dedicated to the land and the lab,
educating the next generation of
problem solvers to take on the
world's biggest challenges.

Territorial Acknowledgement

The University of Alberta acknowledges that we are located on Treaty 6 territory, and respects the histories, languages, and cultures of First Nations, Métis, Inuit, and all First Peoples of Canada, whose presence continues to enrich our vibrant community.

1 in 3
ALES STUDENTS
RECEIVE A SCHOLARSHIP

\$700K for
1,500 STUDENTS
– WE OFFER THE LARGEST
AWARD POOL TO STUDENT RATIO!

 **TOP 2** IN
FORESTRY IN CANADA

 **#2** IN FOOD SCIENCE
& TECHNOLOGY
(CANADA) ARWU

 **7th GLOBALLY**
FOR IMPACT ON
SUSTAINABILITY
THE Impact Rankings

 **#76** IN THE **WORLD** IN
AGRICULTURE & FORESTRY
QS

**We work to solve global
problems together.**

ALES is dedicated to:

- Enhancing the student experience
- Increasing connections to the community
- Turning science into solutions for the public good

THE FACULTY OF

AGRICULTURAL, LIFE & ENVIRONMENTAL SCIENCES



DID YOU KNOW?

The Ag Club is one of the oldest student clubs (established in 1911!) still in existence at the U of A.

Ready to realize your future in agricultural, life or environmental sciences?

As a student in our faculty, you'll be propelled by studying at one of Canada's top research universities, while benefiting from the exceptional, individualized attention that comes with our tight-knit community.

- Small class sizes build lasting relationships and strong networks
- Active student clubs and a close-knit community
- Get hands-on — our applied degree programs include field schools, practicum and internship placements, and guidance on professional accreditation after graduation

The Faculty of Agricultural, Life & Environmental Sciences offers more than 25 program options — creating nearly limitless pathways spanning science, business, or humanities. Our programs are on pulse with industry demand; students are often employed before they graduate!

The Land of Innovation

At nearly 400 acres and less than 3 km from U of A's North Campus, South Campus in Edmonton, Alberta (pictured above) is the leading hub of agricultural research and teaching in North America. In addition to advancements in animal metabolism, crops, dairy, poultry and swine,

the campus features Agri-Food Discovery Place — an innovative technology transfer facility that educates highly qualified individuals. ALES students access real-world expertise and learn first-hand at South Campus and other locations.



ALES IN

ACTION

GET HANDS-ON BEYOND YOUR PROGRAM – THERE'S ALWAYS SOMETHING TO DO IN OUR COMMUNITY!

- **Volunteer at South Campus in our Green & Gold Garden.** Whether you're new to gardening or have a seasoned green thumb, get dirty to learn!
- **Join the Hands-on a Holstein Volunteer Program.** At the Dairy Research and Technology Center (DRTC) on South Campus, you can apply your learnings in the classroom to a practical environment. Students handle daily operations and special projects centred around animal welfare and management.

Human Ecology Students' Association (HESA)

HESA hosts a Clothing Repair Cafe that helps mend clothing to increase the lifespan of garments and decrease waste in the fashion industry.

Forest Society

A favourite way to increase awareness of forestry and conservation? Christmas tree sales and logger sports! The Forest Society also launched Shadow Day, where high school students have an opportunity to sit in on forestry courses and meet professors on campus.

Environmental & Conservation Sciences Students' Association (ECSA)

Take part in outdoorsy events right here on campus! Host plant sales, pet animals, cook over a campfire, and give back while you have fun. Many ECSA events also raise money for conservation efforts.



CINDY

UNDERGRADUATE STUDENT

Cindy is an ALES undergrad who recently volunteered at the DRTC as part of the ALES Mini Internship Program, which gives students hands-on experience in agriculture, life and environmental sciences.

This U of A teaching and research facility, in the heart of Edmonton, extends the opportunity to volunteer with cows—and even hug them!

ALES STUDENT CLUBS

- AGRICULTURE CLUB
- ENVIRONMENTAL AND CONSERVATION SCIENCES STUDENTS' ASSOCIATION (ECSA)
- ENVIRONMENTAL STUDIES STUDENTS' ASSOCIATION (ESSA)
- FACULTY OF ALES UNDERGRADUATE STUDENTS' ASSOCIATION (FAUNA)
- FOREST SOCIETY
- HUMAN ECOLOGY STUDENTS' ASSOCIATION (HESA)
- MULTI-SPECIES JUDGING CLUB
- NUTRITION AND FOOD SCIENCE STUDENTS' ASSOCIATION (NUFSSA)
- POULTRY RESEARCH CENTRE STUDENT CLUB
- PRE-VET/ANIMAL HEALTH CLUB
- U OF A CHAPTER OF THE WILDLIFE SOCIETY

BSC IN AGRICULTURE

NOTEWORTHY

- Graduates may be eligible for accreditation as a Professional Agrologist (P.Ag).
- Students in this program often have summer jobs lined up by late October because there is so much demand for expertise in this field.
- Many students opt to take a donor-funded mini-internship – truly getting their boots and hands in the mud!

CAREERS

[AGRICULTURAL INSPECTOR OR CONSULTANT](#)
[ANIMAL NUTRITIONIST](#)
[BIOTECHNOLOGIST](#)
[CROP OR LIVESTOCK PRODUCER](#)
[ENTOMOLOGIST](#)
[GENETICIST](#)
[MARKET GARDENER](#)
[PROFESSIONAL AGROLOGIST \(P.AG\)](#)
[SOIL SCIENTIST](#)
[TECHNICAL SERVICES AND CONSULTING](#)

OVERVIEW

Fast paced and high tech, agriculture is the second largest industry in Alberta. This discipline includes plant biology, soil health, animal nutrition requirements and so much more.

MAJORS

Agricultural & Resource Economics

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

Animal Science*

From the field to the fork – 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 while also taking agronomy courses such as soil and plant sciences.

EXPERIENCES

Did you know 40% of the world’s population works in agriculture? Learn with your hands in our extensive network of plant and animal research facilities:

- **South Campus:** Houses some of North America’s leading agricultural research. In addition to 240 acres of farmland, you’ll find dairy, swine and poultry research facilities, including our Heritage Chicken Program.
- **Agri-Food Discovery Place:** Links our research in food safety, AgTech, and functional foods with industry collaborators.
- **Mattheis Research Range:** 12,000 acre ranch located near Duchess, AB that supports U of A research and teaching in rangeland and grassland ecology, wildlife management and impacts of climate change on rangeland and land reclamation.

Crop Science

Develop 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) for maximum efficiency and sustainability. Key areas of study include natural resource management and their relationship to social and economic systems.

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

BSC IN AGRICULTURAL/ FOOD BUSINESS MANAGEMENT



NOTEWORTHY

Elevate your skills by taking a variety of business courses, including finance, accounting, strategic management and marketing.

OVERVIEW

Get a competitive edge by combining the study of life science and business in one program! This degree is jointly offered with the Alberta School of Business.

MAJORS

Agricultural Business Management

Discover the significance of scientific and economic relationships within the agri-food sector. Courses cover agricultural and resource economics, as well as animal, plant and soil sciences. Students will develop the business management skills and scientific understanding needed to manage organizations effectively and efficiently within this global industry.

Food Business Management

Work to understand 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 agricultural economics and business courses. Together, these skills can be applied to a career within the food processing and grocery retailing sectors.

EXPERIENCES

- **First year courses:** You will take foundational courses offered in the first year of the Bachelor of Commerce program along with your other ALES program requirements.
- **Co-op Program:** Students can also access the School of Business Co-op Program, where companies welcome your skill set in a 12-month paid work experience.

CAREERS

[AGRI-FOOD SALES AND MARKETING MANAGER](#)
[BUSINESS DEVELOPMENT OFFICER](#)
[COMMODITIES/STOCK TRADER](#)
[FOOD MANUFACTURING/ PROCESSING SUPERVISOR](#)
[MANAGEMENT CONSULTANT](#)
[MARKET DEVELOPMENT SPECIALIST](#)
[MARKET RESEARCH ANALYST](#)
[POLICY ANALYST](#)

BSC IN ANIMAL HEALTH*



OVERVIEW

Understand the biology and behaviour of companion animals, as well as the connection between animal health and the safety of the food supply. Many students in this degree go on to complete veterinary programs in Canada and around the world!

MAJORS

Companion & Performance Animals

Develop an understanding of the physiology, nutrition, behaviour and evolving role of companion and performance animals. This major emphasizes physiology, nutrition, immunology, welfare, and behaviour (including animal learning). Courses focus on the animals found in our homes, search and rescue, sports, animal-assisted therapy and service.

Food Animals

Learn how livestock, poultry and food industries interface by studying animal and human disease, animal nutrition, microbiology, physiology, behaviour and production. Students work closely with agricultural animals and have many opportunities for industry interaction. This major includes courses in immunology, one health and animal welfare.

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

EXPERIENCES

- From beef (meat processing) and dairy (nutrition and milk processing) to swine and chickens, get involved in all the related research at South Campus!
- Have you heard of our Heritage Chicken Program? These chickens have passed on their rare genes since the 1960s! The Poultry Research Centre's Adopt-a-Chicken program and workshops help support animal health research and maintain these unique genetic lines.
- Explore an emerging paradigm in public and veterinary health that recognizes that human, animal and environmental health are interlinked. AFNS 416: One Health addresses food and water safety, the increase in prevalence of antibiotic-resistant organisms, emerging infectious zoonotic diseases, environmental protection and environmental sustainability, emphasizing the interaction of these diverse yet interconnected disciplines in protecting the health of populations.

CAREERS

- [ANIMAL BEHAVIOUR CONSULTANT](#)
- [ANIMAL CARE TECHNICAL SUPPORT](#)
- [ANIMAL NUTRITIONIST](#)
- [ANIMAL/PET SECTOR SALES AND MARKETING MANAGER](#)
- [ANIMAL SHELTER DIRECTOR](#)
- [ANIMAL WELFARE OFFICER](#)
- [FEED/INGREDIENT SALES AND TECHNICAL SERVICES](#)
- [LIVESTOCK PRODUCTION](#)
- [PHARMACEUTICAL RESEARCHER](#)
- [POLICY ANALYST](#)

BSC IN ENVIRONMENTAL AND CONSERVATION SCIENCES

OVERVIEW

Explore how interactions between science, society and the economy influence environmental management decisions. Students develop and analyze solutions for environmental issues such as climate change, land and water use, biodiversity conservation and restoration.

MAJORS

Conservation Biology

Apply the principles of biology, ecology, social science, economics and statistics to species and landscapes conservation, promoting ecological well-being for the benefit of all.

Environmental Economics & Policy

Develop skills in the economic analysis and policy process by considering the economic, social, political and legal background associated with environmental concerns.

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.

Land Reclamation

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

Wildlife & Rangeland Resources Management

Students learn to manage soil, plant, and animal relationships on both private and public lands, better understanding multiple-use issues including grazing, intensive agriculture, forestry and recreational activities.

Northern Systems (Yukon University)

Protect Canada's northern systems! Explore factors in climate change, such as non-renewable energy resources, land use, changes in water quantity and quality, and wildlife conservation.

BSc in Environmental and Conservation Sciences / BA Native Studies Combined Degree Program (5 year)

Obtain two degrees in the combined degree offered in partnership by the Faculty of ALES and Faculty of Native Studies. Learn how Indigenous history, politics and cultural values influence natural resource management. Students promote Indigenous land stewardship within the context of government policies and industrial development.

NOTEWORTHY

- Eligible for accreditation as a Professional Biologist (P.Biol).
- Major in Land Reclamation is eligible for Professional Agrologist (P.Ag) accreditation.

CAREERS

- [AGROLOGIST](#)
- [CONSERVATION OFFICER](#)
- [ENVIRONMENTAL CONSULTANT](#)
- [ENVIRONMENTAL EDUCATION PROGRAMMER](#)
- [ENVIRONMENTAL IMPACT ASSESSOR](#)
- [ENVIRONMENTAL/INDIGENOUS RELATIONS ADVISOR](#)
- [LAND RECLAMATION SPECIALIST](#)
- [LAND USE PLANNER](#)
- [PARK MANAGER](#)
- [POLICY ANALYST](#)
- [SOIL SCIENTIST](#)
- [SUSTAINABILITY COORDINATOR](#)
- [WILDLIFE/CONSERVATION BIOLOGIST](#)

EXPERIENCES

- **SWAMP Laboratory:** Take part in research right on campus at the Soils, Water, Air, Manures and Plants Laboratory - an ultra-clean research facility focused on environmental quality.
- **Field Trips:** Many courses offer field trips for experiential learning. For example, REN R 205: Wildlife Biodiversity and Ecology includes visiting the North Saskatchewan River Valley to observe wildlife in their natural habitat.

BA IN ENVIRONMENTAL STUDIES

NOTEWORTHY

- This interdisciplinary program offers flexible course choices related to the environment and arts. You can access courses from the Faculty of Arts, Native Studies, Science, and ALES (and many other faculties!) to tailor your degree.
- You will be exposed to a diverse range of views and concepts about complex environmental problems, such as climate change, natural resource depletion, pollution and biodiversity loss.
- Students in this program sometimes pursue law after graduation to become an Environmental Lawyer. Recent ALES graduates note this is an ideal program for this career!

OVERVIEW

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. This degree is jointly offered with the Faculty of Arts.

CONCENTRATIONS

Culture, Society, & Peoples of Canada

Understand environmental challenges facing Canadians, including Indigenous perspectives and issues in environmental stewardship.

Food & Society

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

Politics, Society, & the Global Environment

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

EXPERIENCES

- **Courses with impact:** Delve into the human side of environmental research, like the sociology of food, water and energy; rural and Indigenous community well-being; social impacts and responses to environmental change.
- **AREC 173:** The Plate, the Planet and Society is a popular cornerstone course in this program that introduces students to social perspectives on everything from what we eat for breakfast to how we protect endangered species and agricultural landscapes.
- **Experiential learning:** Students can take part in multiple experiential learning and research opportunities outside of the classroom, such as the Science Internship Program (SIP), Campus as a Living Lab, Undergraduate Research Initiative, and Certificate in Sustainability. These programs provide tools to help students thrive in a diverse and increasingly complex workplace.

CAREERS

[COMMUNICATIONS OFFICER](#)
[COMMUNITY RELATIONS ADVISOR](#)
[ENVIRONMENTAL EDUCATION SPECIALIST](#)
[ENVIRONMENTAL/INDIGENOUS RELATIONS ADVISOR](#)
[NGO ADMINISTRATOR](#)
[POLICY ANALYST](#)
[PUBLIC SERVANT](#)
[SUSTAINABILITY CONSULTANT](#)
[SUSTAINABILITY COORDINATOR](#)
[WRITER](#)

BSC IN FASHION BUSINESS MANAGEMENT



NOTEWORTHY

- Did you know our 4 year BSc in Fashion Business Management is the only one of its kind in Canada?
- Our unique, multi-disciplinary program is a joint initiative of the Faculty of ALES and the Alberta School of Business, combining the study of fashion and business to give students a competitive edge.
- Students focus on three areas of fashion: science (how things interact), art (how things are designed), and business (how things are marketed).

OVERVIEW

Do you see yourself entering the world of fashion, pursuing a career in management or even starting your own business? The Fashion Business Management degree can help you achieve your goals!

Gain the advanced understanding of the analytics, planning and management tools, leadership skills, and ethical values needed to excel in the increasingly business-oriented and growing fashion industry.

You will also increase your understanding of the theoretical, practical and ethical processes involved in the design, production, distribution and consumption of textiles and clothing.

EXPERIENCES

- **Co-op Program:** Students can access the School of Business Co-op Program — companies welcome your skill set in a 12-month paid work experience.
- **Abroad Programs:** Take your passion for fashion abroad! Past students have joined Anne Bissonnette, our renowned museum curator and professor, in Paris for a not-for-credit 'Fashion History Crash Course' during the summer.

CAREERS

[DATA ANALYTICS](#)
[DIGITAL COMMERCE](#)
[FASHION MARKETING OR BUYING](#)
[GLOBAL SOURCING AND SUPPLY CHAIN MANAGEMENT](#)
[OPERATIONS MANAGEMENT](#)
[PRODUCT DEVELOPMENT](#)

BSC IN FORESTRY

BSC IN FOREST BUSINESS MANAGEMENT

NOTEWORTHY

- Our Forestry program is **Top 2** in Canada and **Top 25** in the world.
- Graduates of this accredited program are eligible for registration as a Registered Professional Forester (RPF).
- Our outstanding research in forest ecology and management combines drones, AI, LIDAR and thermal imaging technology.
- High demand in forestry means graduates are often employed in middle management positions directly after graduation – with an average starting wage of \$40/hour! (Source: ALIS)



CAREERS

- [CONSERVATION PROFESSIONAL](#)
- [FOREST HEALTH SPECIALIST](#)
- [FOREST RESOURCE POLICY ANALYST](#)
- [LAND USE PLANNER](#)
- [OPERATIONS FORESTER](#)
- [REGISTERED PROFESSIONAL FORESTER](#)
- [SILVICULTURE FORESTER](#)
- [URBAN FORESTER](#)
- [WATER RESOURCES SCIENTIST](#)
- [WILDLAND FIREFIGHTER](#)

OVERVIEW

Do you love the outdoors? Do you want to take care of the environment and sustainably manage forests? This program prepares students to manage natural resources through sustainable forest management practices based on our ecological, social, and cultural values. Courses include forest management, silviculture, forest policy, conservation and ecology.

EXPERIENCES

Undertake hands-on learning with field schools and opportunities to engage and network with industry professionals. Forestry field schools are heavily subsidized thanks to industry endowment.

- **REN R 101:** Introductory Forestry Field School is a week-long field trip throughout Alberta to expose students to basic field skills and interact and learn from forestry experts.
- **REN R 295:** Explore the rocky mountains in this immersive forestry field school, which connects science, government, and industry managers to reconcile real-world challenges in integrated resource management.

OVERVIEW

This program is designed for students wanting to pursue forestry and develop business management skills. Students build analytical, scientific, and broad educational foundations in business and forestry. The forestry component includes courses within ecology, forest biology and management, while business management consists of introductory and advanced courses in business – including accounting, finance, marketing and human resources.

EXPERIENCES

- **Co-op Program:** Students can access the School of Business Co-op Program – develop a diverse skill set in a 12-month paid work experience.
- **Field Trips:** Many courses also offer local field trips for experiential learning.
- **Forest Industry Lecture Series (FILS):** Attend this annual collaborative event for members of Alberta's forestry community to enrich your experience - it's free for current students!

NOTEWORTHY

- Eligible for accreditation as a Registered Professional Forester (RPF).
- Degree is jointly offered with the Alberta School of Business.

CAREERS

- [FOREST ECOLOGIST](#)
- [FOREST ECONOMIST](#)
- [FOREST OPERATIONS MANAGER](#)
- [INTERPRETIVE NATURALIST](#)
- [POLICY ANALYST](#)
- [REGISTERED PROFESSIONAL FORESTER](#)
- [SILVICULTURIST](#)

BSC IN HUMAN ECOLOGY

OVERVIEW

Human Ecology explores the relationships between people and the environments they interact with to make lives better. It's a fascinating, multidisciplinary, applied field of study that provides you with the tools necessary to understand and enhance everyday life.

MAJORS

Clothing, Textiles & Material Culture

Learn how textiles and clothing are designed, produced, distributed and used. You'll develop skills within garment design and construction, examine quality assurance, sustainability and fair labour practices, and study textile's latest technological advances. This program can also involve the design of the places we live and work, such as designing environments for older adults or persons with disabilities.

Family Science

No other environment affects people as profoundly as family. Learn about family strengths, issues and intervention techniques and develop skills in areas that include parent-child relationships, couple relations, program planning and evaluation, community diversity and development, sexuality, family challenges, policy development and analysis, and family finances.

EXPERIENCES

- **Practicum Placement:** A 200-hour for-credit practicum placement allows students to gain hands-on knowledge and skills under the guidance of a practicing professional. Students have received placements at Special Olympics Alberta, Queer & Trans Health Collective, Edmonton Garrison Military Family Resource Centre, Lululemon, Royal Alberta Museum and many others.
- **HECOL 211:** One of the most popular courses among students in the program is Human Sexuality, where students dive into the fascinating world of human sexuality and consider unique perspectives from exciting guest speakers.
- **Anne Lambert Clothing and Textile Collection:** As a student, you'll have special access to this collection. It's one of the country's leading collections of fashion and textiles, housing more than 23,000 garments and accessories! Find examples of quilting and everyday wear spanning over 350 years, study pockets of Victorian era clothing and find samples for your research projects.
- **The Protective Clothing and Equipment Research Facility:** This space supports research on innovative protective clothing materials. You might even light clothes on fire to test their quality! Students can take HECOL 470: Advanced Materials for Protective Clothing and tour facilities of textile companies in Edmonton.

NOTEWORTHY

- We offer the only four-year BSc in Human Ecology in Canada.
- Eligible for accreditation as a Professional Human Ecologist (P.HEc).
- Studying human ecology will prepare you to contribute to the UN's Sustainable Development Goals, such as #10 Reduced Inequalities and #5 Gender Equality.
- Graduates are often offered a position in their placement site or connected to a job opportunity through networking with their supervisors.

CAREERS

Family Science

[COMMUNITY DEVELOPER](#)

[PROFESSIONAL HUMAN ECOLOGIST](#)

[SOCIAL, COMMUNITY, CORRECTIONAL SERVICES](#)

Clothing, Textiles & Material Culture

[FASHION INTERIOR DECORATOR](#)

[FASHION MARKETER/BUYER](#)

[MUSEUM CURATOR](#)

[PRODUCT DEVELOPMENT SPECIALIST](#)

[THEATRE COSTUME DESIGNER](#)

BSC IN NUTRITION AND FOOD SCIENCE

OVERVIEW

Use your knowledge and skills to take on real-world projects that examine issues faced by the food industry and nutritional health sector. Explore human nutrition and food sciences, including microbiology and the technical processes used to preserve and distribute food products.

PROGRAMS

General Program

Develop fundamental knowledge in chemistry, physics, biology, physiology, microbiology and behavioural science, and how they 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 and promotion to the food industry and related sectors.

Dietetics Specialization

This pre-professional program specializes in how the body processes and uses nutrients, and how food choices can help promote human health and wellness as well as manage disease. This health science specialization trains students in the knowledge and practical skills to become a Registered Dietitian.

EXPERIENCES

- **Human Nutrition Research Unit (HNRU):** This world-class facility is home to elite clinical nutrition research and technology. Did you know our whole body calorimetry unit is one of two in Canada? It can measure energy consumption to inform wellness plans for individuals with medical conditions.
- **NUFS 450:** Food Product Development is a popular capstone course for students to follow quality assurance in the design, creation, testing and marketing of their own new food product.
- **Nutrition and Food Sciences Students' Association (NuFSSA):** Each year, the NuFSSA hosts career events to help current students connect and learn about the high employability in the food and nutrition industry.

Food Science & Technology Specialization

Apply chemistry, microbiology and food processing to the manufacturing, preservation, storage and distribution of food. Students focus on the science of producing quality food products, learning about development, sensory analysis, food safety, quality assurance and nutritional content analysis. Students can also take an internship in the food industry for credit.

Honors in Nutrition or Food Science

These programs are designed for highly motivated achievers with a keen interest in pursuing research. Honors programs offer specialized academic and research training, and can prepare students for entry to other programs and graduate studies.

NOTEWORTHY

- Students in the General program can choose minors in Food Marketing, Food Policy, Food Safety & Quality, Food Service Management, Human Ecology, Nutrition Communication & Education, Global Health or Physical Activity.
- Our Dietetics Specialization is the only program in Alberta to be accredited by the Alberta College of Dietitians! A dietetics internship is required and students participate in professional practice or field experiences in various settings to qualify as a Registered Dietitian.
- Our Food Science & Technology Specialization and Honors Food Science programs are the only in Alberta that meet the program outcomes for the food scientists Institute of Food Technologists, the largest professional organization in food science.

CAREERS

[COMMUNITY EDUCATOR](#)

[FOOD AND NUTRITION POLICY](#)

[FOOD INSPECTOR](#)

[FOOD MARKET RESEARCHER](#)

[FOOD PRODUCT DEVELOPER](#)

[FOOD QUALITY ASSURANCE OFFICER](#)

[FOOD SAFETY SPECIALIST](#)

[FOOD SCIENTIST](#)

[NUTRITION CONSULTANT](#)

[NUTRITION/FOOD SCIENCE RESEARCHER](#)

[NUTRITION RESEARCH COORDINATOR](#)

[PUBLIC HEALTH INSPECTOR](#)

[REGISTERED DIETITIAN*](#)

* Graduates of the Dietetics Specialization.



WORK INTEGRATED LEARNING

Science Internship Program (SIP)

Invites ALES students to apply knowledge gained in academic studies to the workplace through a full-time, paid 4, 8, 12 or 16-month internship experience.

Recent Placements

- A nutrition and food sciences student worked at Daiya Foods and analyzed food product formulations and ingredients for pH, moisture, viscosity and stability, and engaged in micro-testing.
- An environmental and conservation sciences student worked as a Hydrometric Technologist with Environment Canada: Meteorological Service of Canada Department. Their role included height modernization and benchmark installations.

What can you do during your degree?

uab.ca/ALESExp

ALES Mini-Internship Program (AMIP)

Students get first-hand career experiences in agriculture, environmental and food production systems. During fall and/or winter reading weeks, students are matched with an industry-specific organization for a visit and volunteer work. The AMIP also shares engaging virtual presentations from agricultural producers around the world.

Business Co-op

Students in any ALES Business Management Program can access the School of Business Co-op Program – an exciting opportunity for companies to take on your skill set in a 12-month paid work experience.

Human Ecology Practicum

Required for students in Human Ecology, this practicum formally integrates a student's academic study with work experience in community organizations and agencies.

Dietetics Internship

Students in the Dietetics Specialization are required to participate in professional practice during the fourth year of the program. For a course of one year, students work in various community settings, including rural areas, such as hospitals, food service operations, schools and community agencies/clinics. These placements fulfill part of the requirements to qualify as a Registered Dietitian with the College of Dietitians of Alberta.



Students Get the Spotlight

In addition to sustainability-focused research and the pursuit of environmentally friendly campus operations, it was student-led initiatives that boosted us to top ranks in sustainability. Students pursuing the Certificate in Sustainability turned ideas to reality for the greater good with their campus-wide initiative DishZero, a reusable takeout container program.

EXPERIENTIAL OPPORTUNITIES

FIELD SCHOOL

Introductory Forestry Field School

Join other first-year forestry and forest business management students in August for this six-day course that will introduce you to the broad field of forestry through experiential learning. We'll travel through the forested areas of west-central and northern Alberta, learning about forest plants, animals and ecology, field operations (including harvesting and silviculture) and forest protection. You'll even visit manufacturing facilities. Learn basic field skills and meet forest practitioners and professionals, many of whom participated in field school themselves! You'll also get to know your "cohort" of students — and feel well prepared for your upcoming classes!

Field Skills in Environmental, Conservation & Forest Sciences

- After completing your second year, you'll have the opportunity to take part in this immersive 10-day program to learn field skills on location and to help solve current and future landscape management issues. You'll apply the academic knowledge you've gained so far in practical and experiential environments alongside your fellow students.
- REN R 456: Explore the Yukon's natural and cultural history with week-long, for-credit field trip courses in summer, fall and winter terms! Discuss environmental, social and economic challenges in this region, and identify ecologically and culturally appropriate research and management approaches for Canada's northern systems.

CERTIFICATES

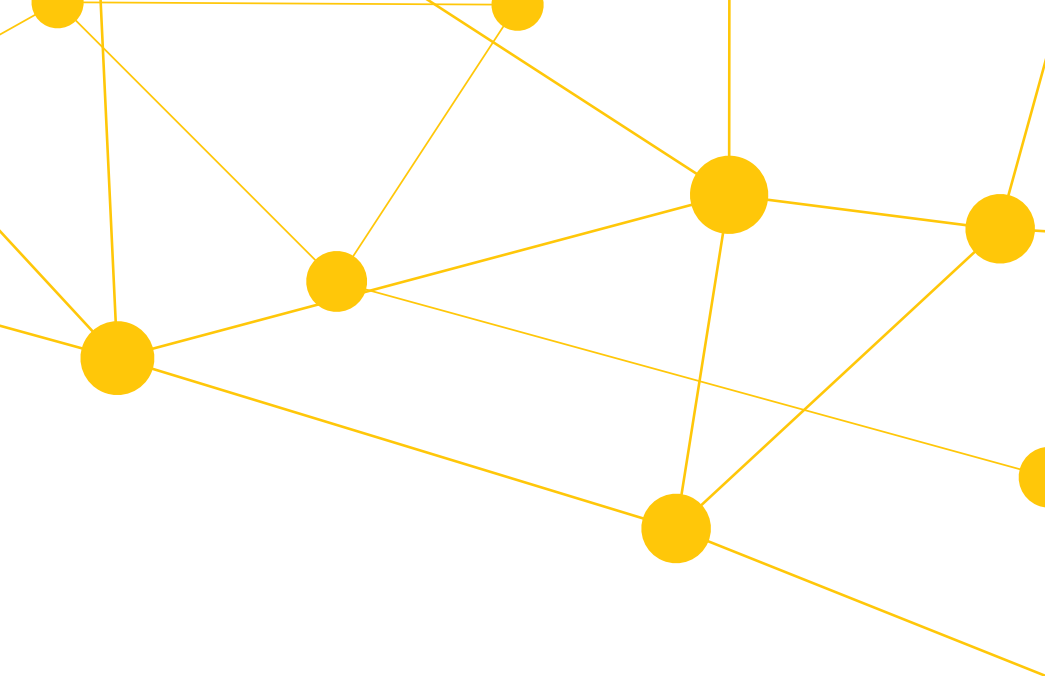
Set your degree apart with an embedded certificate on a topic that interests you. Popular certificates that pair well with our programs are:

- Certificate in Sustainability
- Certificate in International Learning
- Certificate in Innovation and Entrepreneurship
- Certificate in Community Engagement and Service-Learning

STUDY ABROAD

Imagine taking courses somewhere else in the world... and having them count for credit towards your degree! Planning with our advisors is recommended to ensure options fit into your program and maximize your ALES experience.

- **Wageningen University & Research Experiential Learning (Netherlands)**
The ALES Centennial Dutch Endowment Travel and Experiential Learning Award was established to commemorate the relationship between Canada and the Netherlands, to mark the 70th anniversary of the liberation of the Netherlands and the Centennial of the Faculty of ALES. ALES students study, research and work with Wageningen University & Research and organizations in the Netherlands to learn the leading-edge agricultural practices that have made that country the world's second-leading agricultural exporter.
- **Semester in the North - Yukon University (Whitehorse, YK)**
Students in environmental-related programs can spend a semester in the Yukon to learn about protecting Canada's northern systems and help develop solutions to global climate change, all while earning credit towards their degree.
- **Bangor University (Wales)**
Get credit for specialized coursework in forestry or environmental and conservation sciences programs.



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