

THE FACULTY OF AGRICULTURAL,  
LIFE & ENVIRONMENTAL SCIENCES

# MEDIA GUIDE 2019/20



**UNIVERSITY OF ALBERTA**  
FACULTY OF AGRICULTURAL,  
LIFE & ENVIRONMENTAL SCIENCES





# DEAN'S OFFICE

Welcome to the Faculty of Agricultural, Life & Environmental Sciences (ALES). We are a research-intensive faculty that provides solutions to a variety of global challenges facing our world. Our researchers and students focus on issues such as climate change, renewable energy, agriculture, aging, nutrition – and just about everything in between that helps improve the health and wellness of people and our living planet as well as growing economic opportunities in Alberta, Canada and across the globe.

It's exciting to be part of a faculty that is so incredibly relevant, forward-thinking and focused on turning science into real-life solutions.

As you read this curated guide to our faculty, remember this gives you an overview of who we are and what we do, and more information is available on our website, [ales.ualberta.ca](http://ales.ualberta.ca).

If you don't find what you're looking for, please feel free to contact us – we're always happy to share our stories.

- Dean Stan Blade, PhD

A portrait of Dean Stan Blade, a middle-aged man with glasses, wearing a blue shirt and a dark blue blazer. He is smiling slightly and looking towards the camera. The background is a blurred outdoor scene with greenery. The name 'Stan' is written in a cursive font in the bottom left corner of the image.

Stan

## OUR TEAM

Stan Blade – dean

Vic Adamowicz – vice dean

Scott Jeffrey – associate dean, academic

David Bressler – associate dean, research

Leluo Guan – associate dean, graduate studies

Marie Perron – assistant dean, development

Jim Bohun – assistant dean, academic and student programs

Sarah Pratt – director of communications

Carl Charest – senior officer, strategy and initiatives

## CONTACT US

[alescomm@ualberta.ca](mailto:alescomm@ualberta.ca)

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

[ualberta\\_ales](https://www.instagram.com/ualberta_ales) Instagram



# THE FACULTY OF AGRICULTURAL, LIFE AND ENVIRONMENTAL SCIENCES

The Faculty of Agricultural, Life & Environmental Sciences is one of the most research-intensive faculties at the University of Alberta. Our 120 faculty members and 2,100 graduate and undergraduate students are working to provide solutions to global challenges through four departments:

**AGRICULTURAL, FOOD & NUTRITIONAL SCIENCE**

**HUMAN ECOLOGY**

**RENEWABLE RESOURCES**

**RESOURCE ECONOMICS AND ENVIRONMENTAL SOCIOLOGY**

*Plus the University of Alberta Botanic Garden*

Through these departments, we conduct academic and research programs along four important and highly relevant themes:

**Helping feed the world**

**Ensuring a healthy environment**

**Strengthening individual and community well-being**

**Nurturing bio-resource innovation**

We are:

**1,600 undergraduate students**

**500 graduate students**

**Nine programs leading to a BSc and one leading to BA**

**120 faculty members**

**Four 3M Teaching Fellows**

**Annual average of \$40 million in external research funding**

Our vision is to:

**ENHANCE THE STUDENT EXPERIENCE**

**INCREASE CONNECTIONS TO OUR COMMUNITY**

**TURN SCIENCE INTO SOLUTIONS FOR THE PUBLIC GOOD**

# COMMUNICATIONS

Every day we communicate with each other. A passing smile, a honk in traffic, clicking the heart on an Instagram photo...these actions mean something. We are constantly processing how we give and receive communications, and humans aren't the only ones. Dogs wag their tails, squid change their colour and pattern, and demon African mole rats bang their heads on tunnels (thank you National Geographic for that random fact).

Here in the Faculty of ALES, we aren't quite as unique as a bioluminescent squid or a mole rat that uses an inner Metallica soundtrack and seismic waves to let others know, "back off, this is my dirt tunnel," but we do want to connect with you. We want to get you thinking, talking and acting.

We want to tell stories and share our academic excellence, world-changing research and exceptional student experiences, and we are committed to helping feed the world, ensuring a healthy environment, strengthening individual and community well-being and nurturing bio-resource innovation.

If you need communications – a source, a story, a photo, faculty information or a press release, or to pitch a story or get event details – email us at [alescomm@ualberta.ca](mailto:alescomm@ualberta.ca)

- Sarah Pratt,  
director of communications



# DEPARTMENT OF AGRICULTURAL, FOOD AND NUTRITIONAL SCIENCE

We serve the community through excellence in teaching and research in efficient and sustainable agricultural production, value-added processing, food safety and human health, to improve health and quality of life.

The **Department of Agricultural, Food and Nutritional Science (AFNS)** at the University of Alberta is a unique department and the first of its kind in North America.

AFNS integrates many disciplines across agriculture, food and nutrition, ranging from primary production and biotechnology in plant and animal sciences via innovative food and agri-food products, to human nutrition and wellness.



*Ruurd Zijlstra*  
*Chair*

## **DIVISIONS**

### ***Animal Science***

#### *Examples of research*

Alternatives to antibiotics in chicken feed  
How cattle can produce less methane

### ***Plant Biosystems***

#### *Examples of research*

New wheat varieties to help improve yield and early maturation  
Battling clubroot disease in canola

### ***Food Science and Bioresource Technology***

#### *Examples of research*

What peptides in food protein can do for health  
Taste and smell alterations in cancer patients  
A new way to convert lipids into hydrocarbons that are used as fuel

### ***Human Nutrition***

#### *Examples of research*

New ways to treat diabetes  
A gluten-free food guide for children

## **CENTRAL LABORATORIES**

Agri-Food Material Science Unit  
Agriculture Genomics and Proteomics Unit  
Chromatography facilities  
Food science facilities  
Nutrition and metabolism facilities  
Human Nutrition Research Unit  
Plant growth facilities  
Proximate analysis facilities

## **OFF-CAMPUS RESEARCH FACILITIES**

Agri-Food Discovery Place  
Alberta Poultry Research Centre  
Crops & Land Resources Unit  
Dairy Research and Technology Centre  
Laird W. McElroy Metabolism & Environment  
Research Unit  
Swine Research and Technology Centre  
Enclosed Composting Facility  
Feedmill  
Ministik Field Station  
Roy Berg Kinsella Research Ranch  
St. Albert Research Station  
Mattheis Research Station



**UNIVERSITY OF ALBERTA**  
DEPARTMENT OF AGRICULTURAL,  
FOOD & NUTRITIONAL SCIENCE

# DEPARTMENT OF HUMAN ECOLOGY

We have four main research areas: aging; children, youth & families; material culture studies; and textile and apparel science. Human Ecology is highly multidisciplinary and research overlaps between these four areas.

## *Examples of research*

### **Aging**

New research shows five separate trajectories of caregivers and caregiving across the life course  
– Janet Fast

### **Children, youth and families**

Nearly 40 per cent of mothers of children under 16 are underemployed: are mothers opting out or are there systemic barriers to their inclusion in the workforce? – Rhonda Breitzkreuz  
Lots of sexting can wreck a romance: tech-communication shortcut undermines features of strong relationships – Adam Galovan

Teaching financial literacy and money management in the family – more than simple middling behaviours are needed (this study was carried out by MSc and PhD student Johana Zuluaga)  
Fair division of household labour can help your sex life – Matthew Johnson

### **Material culture**

The relationship between language (particularly conversation) and the design, construction, and mediation of the material world in pedagogic, professional and popular culture contexts. Recent projects include an ethnographic study of contemporary architecture education and professional practice, a linguistic analysis of cross-cultural communication in product design, and a cultural studies analysis of film-based media. – Arlene Oak

Dementia care facilities can utilize everyday objects of personal value to their residents to improve well-being – Megan Strickfaden

Chaos in women's wear sizing: many blame themselves when clothing doesn't fit, but the problem is with the industry – Anne Bissonnette



*Deanna Willianson  
Chair*

### ***Textile and apparel science***

Is the efficacy of fire-protective clothing worn by firefighters decreasing as the fabric ages? – Patricia Dolez

Why cotton clothes just don't smell as bad as synthetic – Rachel McQueen

### ***Rotating exhibits***

The first-floor gallery of the Human Ecology building presents, on average, two exhibitions each year from the Anne Lambert Clothing and Textiles Collection. Due to the nature of our collection, each exhibition requires detailed work. In addition to the research conducted to understand the artifacts, each piece needs to be examined for stability, and conservation treatment may be required in the case of fragile materials. Garments need to be dressed on three-dimensional forms that do not damage the pieces and have a proper stand for the period of the piece. Mannequins made for the display of historical garments are typically padded to the shape of the original wearer and thus require skill and knowledge to be presented properly. As textiles are extremely fragile, they must be presented under low light levels for a limited time.



**UNIVERSITY OF ALBERTA**  
**DEPARTMENT OF HUMAN ECOLOGY**

# DEPARTMENT OF RESOURCE ECONOMICS AND ENVIRONMENTAL SOCIOLOGY

The Department of Resource Economics and Environmental Sociology applies economic and sociological theory, methods and perspectives to important problems and issues in food, agriculture, the environment, and natural resource management.

## RESEARCH AREAS

### ***Environmental and Resource Economics***

#### *Examples of research*

- Public policies and biofuel production
- How social structure impacts environmental valuation
- Household willingness to pay for environmentally favorable outcomes

### ***Economics of Agriculture, Food and Agribusiness***

#### *Examples of research*

- Public perception of GMOs
- Consumer trust and buying behaviour
- Optimizing food bank operations

### ***Rural and environmental sociology***

#### *Examples of research*

- Alternative food systems
- Rural and Indigenous community well-being
- Energy transition
- Gender and development



*John Parkins*  
Chair



**UNIVERSITY OF ALBERTA**  
DEPARTMENT OF RESOURCE ECONOMICS  
AND ENVIRONMENTAL SOCIOLOGY





*The Mural*  
Atrium

# DEPARTMENT OF RENEWABLE RESOURCES

Our goal is to develop approaches for a sustained flow of ecological goods and services that achieves a balance between economic and social benefits and the intrinsic value of nature.

We use science to guide better management, conservation and restoration of ecosystems and landscapes. We discover and share knowledge about forests, rangelands, crops, wildlife, soils and water.

## RESEARCH AREAS

### ***Conservation Biology***

*Examples of research*

Wildland fire management

Climate change adaptation

and forest ecology and  
management

### ***Forest Ecology and Management***

*Examples of research*

Mountain pine beetle

Bird responses to forestry

### ***Reclamation and Restoration of Land and Water***

*Examples of research*

Chicken feathers clean industrial wastewater

Rare butterfly species more abundant in older, wider seismic lines

### ***Agriculture and the Environment***

*Examples of research*

Perennial grain crops and carbon credits

Carbon and nitrogen fluxes in agroecosystems leading to strategies for greenhouse gas mitigation, climate change adaptation and improved nutrient and water-use efficiencies

### ***Environmental Soil Science***

*Examples of research*

Carbon release from thawing peatlands

Breton Plots help understand how agricultural practices can adapt to climate change



*Ellen Macdonald  
Chair*

## OFF-CAMPUS FACILITIES

Field research sites

George Lake research site

Breton Plots

EMEND Field station

## LABORATORY FACILITIES

Natural Resources Analytical Laboratory: provides environmental analysis of soil, plant and water samples

Stable Isotope Facility for Ecosystem Research: dedicated to the study of ecosystem functions by tracking molecular fluxes

Spatial Information Laboratory: houses geographic information system, remote sensing and other geomatic science analyses and resources



**UNIVERSITY OF ALBERTA**  
**DEPARTMENT OF**  
**RENEWABLE RESOURCES**

# UNIVERSITY OF ALBERTA BOTANIC GARDEN

The University of Alberta Botanic Garden (formerly the Devonian Botanic Garden) is a 97-hectare property in Parkland County, 15 minutes southwest of Edmonton, near the town of Devon, Alta.

As the largest botanic garden in Alberta, it is home to a collection of more than 8,000 actively managed plants, as well as extensive natural areas.

Three indoor showhouses (including the Tropical Plant and Butterfly House, Arid Plant House and Temperate Showhouse) and the Kurimoto Japanese Garden, a beautiful two-hectare garden, are popular highlights. Construction of the 4.8-hectare Aga Khan Garden, Alberta finished in June 2018. The new feature, made possible by a \$25-million gift from His Highness the Aga Khan, is a modern interpretation of Moghul-inspired gardens in Islamic landscapes, designed for the topography and climate of the Edmonton region.

The garden is the site of research on topics as diverse as fungal associations, mosses, forest fires, bat, frog and chickadee monitoring, and oilsands and wetland reclamation. The garden is part of a global network of botanic gardens working to understand and preserve biodiversity, and is a partner in the Millennium Seed Bank at Kew Gardens in England, the largest plant conservation project in the world.

The garden was named the 2014 Botanical Garden of the Year by Canada's Garden Tourism Council, and won the 2013 Emerald Award for excellence in environmental education.

## Contact

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Communications and marketing co-ordinator

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[kerry.mulholland@ualberta.ca](mailto:kerry.mulholland@ualberta.ca)



# FACULTY EXPERTS GUIDE

The Faculty of Agricultural, Life & Environmental Sciences is home to experts in an exciting variety of subjects. Below is a list of some of our experts – we have many more! If you're looking for a research area not listed here, please contact the director of communications.

## FOOD AND NUTRITION

Canola .....	Habibur Rahman
Canola-biotechnology.....	Nat Kav
Plant diseases .....	Steven Strelkov
Economics of food .....	Sven Anders
Food safety .....	Lynn McMullen
.....	Michael Gänzle
Genomics .....	Paul Stothard
.....	Graham Plastow
Beef.....	Heather Bruce
Swine.....	Michael Dyck
Poultry.....	Doug Korver
.....	Frank Robinson
.....	Martin Zuidhof
Gluten.....	Diana Mager
Diabetes .....	Jean Buteau
.....	Catherine Chan
Human nutrition, pregnancy, women's health, diabetes.....	Rhonda Bell
Nutrition, body composition and energy metabolism.....	Carla Prado
Community nutrition.....	Anna Farmer
.....	Noreen Willows (Indigenous community nutrition)
Consumer behaviour related to food.....	Ellen Goddard
Food access and food environment.....	Feng Qiu

## CLIMATE CHANGE/THE ENVIRONMENT

Climate change – forest ecology and management.....	Andreas Hamann
Forest insects and diseases.....	Nadir Erbilgin
Permafrost and climate change, wetlands, water quality .....	David Olefeldt
Soil science .....	Miles Dyck
Forest, soil and land remediation .....	M. Derek Mackenzie
Soil and water science, environmental geochemistry, trace elements.....	William Shotyk
Fish management, ecology and conservation.....	Mark Poesch
Grizzly bears.....	Scott Nielsen
Wildfire.....	Mike Flannigan
.....	Jen Beverly
Biofuel.....	David Bressler
Land reclamation .....	Anne Naeth
Health and wellbeing of Indigenous communities, local responses to sub-arctic and arctic ecosystem change.....	Brenda Parlee
Renewable energy opportunities, the social impact of climate change .....	John Parkins
Social impacts and responses to climate change.....	Debra Davidson

## HUMAN ECOLOGY

Aging .....	Janet Fast
Clothing and textiles .....	Vlada Blinova –apparel design and fashion product development
.....	Anne Bissonette - history, cut and construction of clothing from the 18th-century to the present day
Intimate relationships .....	Matthew Johnson
Family relationships .....	Adam Galovan



# IN THE COMMUNITY

## GARDENS

### University of Alberta Botanic Garden

The garden hosts visitors between May and September and boasts cultivated gardens, plant collections, indoor show houses and extensive education programming for adults and school children.

### Green & Gold Garden

A joint project by ALES and the School of Public Health, this two-acre garden on South Campus is run entirely by community volunteers who sell produce twice a week to the public.

### Prairie Urban Farm

PUF is a 1.5-acre garden that was established and is run by an ALES faculty member and a group of volunteers to motivate more food growing and food literacy amongst Edmontonians.

### Heritage Chicken program

Members of the program name a heritage chicken and receive a dozen eggs every other week on South Campus. The membership fees help maintain the heritage chicken breeds and their genetic diversity.



## **IN THE FIELD**

Breton Plots field day

Roy Berg Kinsella Research Station field day

Rangelands Research Institute field day

## **MUSEUMS, COLLECTIONS AND EXHIBITS**

ALES Agricultural Museum

Clothing and textiles collection

Clothing and textiles exhibit

The Pig Science Centre



# CAMPUS VISITORS GUIDE

Maps of each of the University of Alberta's five campuses are available online.

## **PARKING**

Campus parking for media vehicles displaying University of Alberta Press parking permits is available at Stadium, Education and Windsor car parks, in Lots N and U behind HUB Mall, in Lot L by Corbett Hall and at on-street U of A parking meters. Press parking permits are renewable annually at no charge to media. Call 780-492-7275 to arrange for one. Please note that parking locations not clearly identified as U of A property require a parking fee.



## PROTECTIVE SERVICES

Protective Services' peace officers are dedicated to ensuring the safety of our campuses and community.

Dispatch (non-emergency):.....780-492-5050

Lost and found:.....780-492-2943









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