## HONOURS BACHELOR OF SCIENCE IN FORESTRY (HBSCF)

This program allows for professional accreditation upon graduation and prepares students for managing the sustainable use of forest resources in both Canadian and global contexts. Learning about resilient communities, strong businesses, and healthy ecosystems, students engage in problem solving in areas that include fair resource sharing and climate change readiness. Emphasis is on cutting-edge technology and tools that are best grasped in practical, field-based endeavours vital to facing the challenges of complex resource management issues.

#### FOREST MANAGEMENT

- o Mastering decision making for sustainable use of the forest
- o Optimizing multiple options while safeguarding biodiversity
- o Reconciling new economies with traditional and community values

#### FOREST HEALTH AND PROTECTION

- Balancing values with stresses caused by natural and human disturbances
- o Developing sophisticated spatial tools for rapid response to disease and fire
- Managing trees and habitats in urban settings

#### FOREST PRODUCTS AND MARKETING

- Understanding forest industry transition
- Developing and marketing value-added forest products
- Optimizing biomass supply chains
- Mapping forest resource properties

**Upper-year Courses and Electives** – Management planning, policy and legislation in natural resources, remote sensing, renewable energy alternatives, forest economics, habitat planning, Indigenous Peoples and natural resources.

# HONOURS BACHELOR OF ENVIRONMENTAL MANAGEMENT (HBEM)

This program allows for professional accreditation after graduation and prepares students for challenges and opportunities in integrating peoples' beliefs and cultural values, dynamic populations, and ecosystem services with uncertain futures. Learning about decision making, modelling and the scientific method, students engage in laboratory and field-based exercises that mimic real-world problems. Emphasis is on understanding components of sustainable populations, limits to the land base and multiple perspectives on the use of resources.

## FISH & WILDLIFE CONSERVATION AND MANAGEMENT

- o Modelling diverse populations
- Understanding resource users
- Safeguarding cultures and ecosystems

#### **CONSERVATION PLANNING AND MANAGEMENT**

- Mastering decision making
- Knowing about stresses on land and in water
- o Developing sophisticated spatial tools for evaluating multiple future options

#### SUSTAINABLE LAND USE

- Building a resilient resource base
- Innovating creative agroforestry alternatives
- o Developing strategies and new legal frameworks for adapting to climate change

**Upper-year Courses and Electives** – Fish and wildlife practice, remote sensing, management planning, environmental assessment, decision support tools, public administration, Indigenous Peoples and natural resources.





## NATURAL RESOURCES MANAGEMENT

Natural resources management is the practice of environmental stewardship for the outcome of reaching a balance of ecological sustainability, economic viability and societal acceptance. It includes the conservation of wildlife, clean water, scenic aesthetics, respect for First Nations people, and the continued best practices in resource development and extraction.

## **FACULTY MISSION AND VISION**

The Faculty of Natural Resources Management is committed to producing high-quality graduates to face the challenges of the management of ecosystems around the world while meeting society's needs. The Faculty follows a student-centred approach to producing adaptable team players with professional attitudes, ethical behaviour and an appreciation for life-long learning.

## LOCAL AND INTERNATIONAL FIELD SCHOOL

Field school is an opportunity for students of all years to hone their skills with team-based learning at a variety of off-campus facilities. Students visit natural environments and professional networks in local, regional, and international settings.

Past International Field Schools – Croatia, Czech Republic, Ecuador, Finland, India, the U.S.A.

## **EMPLOYMENT OPPORTUNITIES**

Consultants in forestry, environmental assessment, and ecosystem rehabilitation, water and soil testing facilities, forest-based industries, environmental consulting firms, conservation authorities, Ministry of Natural Resources and Forestry, Department of Fisheries and Oceans.

## **DR. ULF RUNESSON**

DEAN FACULTY OF NATURAL RESOURCES MANAGEMENT

ACTING CHAIR FOREST MANAGEMENT

ulf.runesson@lakeheadu.ca PHONE: (807) 343-8507

#### **DR. W. LENSE MEYER**

CHAIR Environmental Management

leni.meyer@lakeheadu.ca PHONE: (807) 343-8445

#### Lakehead University

Faculty of Natural Resources Management 955 Oliver Road, Thunder Bay, ON, Canada P7B 5E1 Phone (807) 343-8507 Fax (807) 343-8116 Web http://nrm.lakeheadu.ca/ Last Modified: 1<sup>st</sup> July, 2016 Copyright © 2016 Faculty of Natural Resources Management All Rights Reserved Questions & Comments? ulf.runesson@lakeheadu.ca





# PROGRAMS

- Honours Bachelor of Science in Forestry (HBScF) with Co-op option
- Honours Bachelor in Environmental Management (HBEM) with Co-op option
- College Transfer Program (HBScF / HBEM 2+2 option)
- Master of Science in Forestry (MScF) (12-month course-based with internship / 2-year thesis-based option)
- PhD in Forest Sciences

# HBScF / HBEM

## Years 1 & 2

- Common foundational courses in:
  - Basic Sciences and Geomatics

College Transfers

- Ecology and Evolution
- Environmental Philosophy
- Quantitative Skills

Years 3 & 4

- Specialization courses
- Senior research project
- Planning / Policy courses