



Global Forestry, Forestry Education, You and Faculty of Forestry

Prof. Shashi Kant

Faculty of Forestry

University of Toronto, Canada

A large green leaf with a prominent hole is shown on the left side of the slide. Below the leaf, its reflection is visible in a body of water. The background of the slide is a soft, yellowish-green gradient.

Global Forestry

- **Forests:**

- Public Goods as well as Private Goods
- Global as well as Local Resources
- Ecosystems rather than sources of wood
- Ecosystem-based/Sustainable Forest Management rather than timber harvest scheduling/ SYTM
- Recognition/importance of various ecosystem services in global challenges



Global Forestry

- Carbon sequestration, climate change, REDD+
- Biodiversity and Convention of Biological Diversity (CBD)
- Forests and Air and Water Pollution
- Forests, Bio-economy, and Sustainable Development
- Forests and Urbanization
- Forests and Health
-



Forestry Education

- **For successful career in forestry**
- Management of ecosystem rather than timber, and ecosystems include people
- Not only biological science but biological, social, and management science
- Integration science
- Global perspective
- Hard skills as well as professional skills



You

- **Foresters of China in the 21st Century**
- A Different Role in China
- Much Wider Global Presence
- Leadership and Supporting Role
- Different Perspective
- Need of a Different Skill Set



Faculty of Forestry

- 1996 - Master of Forest Conservation (MFC)
- A Professional Program – produce Professionals/Managers and not experts

MFC Program Objectives

- To have knowledge about recent technical, institutional, and managerial innovations;
- To integrate knowledge and expertise from natural, social, and management sciences;
- To apply academic knowledge to the solution of practical management problems;
- To develop skills in decision making and conflict resolution;
- To develop leadership skills and the capacity to function effectively in multi-disciplinary teams; and
- To produce professionals who can articulate and have effective oral and written communications skills

Top Ranked Universities and Forestry Education (QS Ranking -2013)

| Rank | University | Forestry | Rank | University | Forestry |
|------|------------|----------|------|-------------------|----------|
| 1 | MIT | | 10 | Princeton | |
| 2 | Harvard | | 12 | ETH | |
| 3 | Cambridge | | 13 | Pennsylvania | |
| 4 | UCL | | 14 | Columbia | |
| 5 | ICL | | 15 | Cornell | x |
| 6 | Oxford | x | 16 | John Hopkins | |
| 7 | Stanford | | 17 | Edinburgh | x |
| 8 | Yale | x | 17 | Toronto | x |
| 9 | Chicago | | 18 | Ecole Polytechnic | x |
| 10 | Caltech | | 19 | King's College | |

University of Toronto



Established in 1827, University of Toronto has one of the strongest research and teaching faculties in North America.

Consistently ranked number 1 in Canada and within the top 20 in the world.

Faculty of Forestry



Established in 1907, the Faculty of Forestry at the University of Toronto was Canada's first forestry faculty.

The Faculty of Forestry is globally recognized as a power house in scientific advancement and technological creativity.



First Professional Program in Forest Conservation

MFC Program Description

- **A 16 month intensive course-based multidisciplinary program;**
- **Strong focus on practical training – internship and field trips;**
- **Unique in its design and delivery**

- **A Global Perspective –**
 - **International field trip**
- **Students from diverse background – History to Computer Science**
-



Local Field Trips

High Park-Toronto

Haliburton Forest

Long Point

Jokers Hill



Durham Region Forest

Canadian Ecology Centre (Mattawa)

Summer Internships

MFC Coordinator advises and assists with arrangements for internship opportunities.

Internships are a 2-3 month placement with a forest conservation-related host organizations (June to August).



International Forest Conservation Field Camp

D



Core Courses

First Semester – starts right after labour day

Orientation – 2 days and then off to camp

First semester courses

| | |
|----------|---|
| FOR3000H | Current Issues in Forest Conservation |
| FOR3001H | Biodiversity of Forest Organisms (Haliburton) |
| FOR3002H | Applied Forest Ecology and Silviculture |
| FOR3003H | Economics of Forest Ecosystems |
| FOR3012H | Analytical Methods in Forest Conservation |







Core Courses

Second Semester

- FOR3004H Forest Management Decision Support Systems
- FOR3009H Forest Conservation Biology
- FOR3010H Society and Forest Conservation

Plus electives

North Bay Field Trip,
late February











TOYOTA
TUNDRA

4x4

PETERBOROUGH
ONTARIO
202 4VH



Krivoklat Castle
Czech Republic 2006

Core Courses



Third Semester

FOR3011H International Forest Conservation Field (May)

OR

FOR1585H Urban Forest Conservation Field Camp

OR

Another U of T field course approved by the Faculty of Forestry

- Haida Gwaii

**FOR3007 Internship in Forest Conservation
(June-August)**

International Forest Conservation Field Camp

| | | | |
|------|--------------------------------|-------------|--------------------------------|
| 1997 | Northern Mexico | 2006 | The Czech and Slovak Republics |
| 1998 | Germany and Austria | 2007 | Germany and Switzerland |
| 1999 | Brazil | 2008 | Denmark and Sweden |
| 2000 | Sweden | 2009 | Brazil |
| 2001 | Germany, Switzerland and Italy | 2010 | Brazil |
| 2002 | England, Scotland and Wales | 2011 | China |
| 2003 | Pacific NW of USA | 2012 | Malaysia |
| 2004 | Spain | 2013 | New Zealand |
| 2005 | North-eastern Mexico | 2014 | <i>Nepal</i> |



Malaysia 2012



Kembang Rafflesia Arnoldi

- Meet up in Kuala Lumpur
- Lectures on forest practices and utilization – Forest Research Institute of Malaysia (Kepong)
- Visits to plantation forests near Kepong
- Palm oil and rubber plantations, Negeri Sembilan State
- Lowland and hill forests, Negeri Sembilan
- Home gardens and traditional medicine; Minangkabau traditional culture
- Flight from Kuala Lumpur Intl airport to Sandakan, Sabah (Borneo)
- Visit at Sepilok Forest Reserve – including talks on forest conservation and research in Borneo
- Orangutan “rehabilitation” center (and sun bear conservation)
- Mangrove forests and proboscis monkeys
- Heath (“kerangas”) forest
- Rafflesia park (world’s largest flower)
- End up at Kota Kinabalu — coral reefs / snorkeling



China 2011

- Beijing
 - Visit Beijing Tiantan Furniture Plant
 - Visit Badaling Great wall
 - Visit Badaling Forest Farm
 - Title: conservation of ancient wood structures in China Speaker: Mr. Duan Xinfang, professor of Chinese Academy of Forestry
 - Title: introduction on Chinese Society of Forestry Speaker: Professor Shen Gui, Deputy secretary-general of Chinese Society of Forestry
 - Title: Forest policy issues in China Speaker: Mr. Hu Yuanhui, division director of State Forestry Administration
 - Visit Summer Palace
 - Visit Forbidden City and Tiananmen Square
 - Fly to Kunming
 - Stone forest, Jiuxiang cave
 - Yunnan nationalities / minorities
 - Western hill forest park
 - Dongchuan landslide area (erosion control projects)
 - Haikou forest farm / Golden temple
 - Boat trip through forest types (into tropics at Xishangbanna on Laos border)
 - Northernmost shorea forest in Asia
 - Wild elephant valley
 - End up at Jinghong



The background of the slide features a close-up of a vibrant green leaf on the left side, with its veins clearly visible. Below the leaf, there are soft, circular ripples on a body of water, reflecting light in shades of green and yellow. The overall aesthetic is natural and fresh, with a bright, slightly hazy light source in the upper left corner.

Internships

- 2-3 month placement with a forest conservation- related host organization
- June to August
- Any safe place in the world-from Toronto to Global Destinations

INTERNSHIPS



BRAZIL

Environmental Conservation and Indigenous Peoples

July 14 - August 3, 2011



This course to the Brazilian Amazon will address tropical forest ecology; conservation of Amazonia; and the role of the indigenous Kayapó and other local groups in the Amazon region.

The Amazon basin is the largest remaining tract of tropical rainforest in the world, and is also the home to many different types of human communities: indigenous groups, river dwelling families, rubber tappers, farmers, ranchers, and miners. Because of the widespread development and expansion in the Amazon region, a number of indigenous and local communities now participate in arrangements of “partnering” with outside entities, intended to increase the security of their lands and their well-being. In this study abroad course, students have the rare opportunity to visit with and learn about the many different actors and activities in the Amazon region.

The Kayapó territories represent one of the largest remaining tracts of neotropical rainforest in the world. The Kayapó, who continue to practice hunting and horticulture, have effectively protected their lands through organization, political prowess, and technological advances. In 1989, they earned worldwide recognition for their precedent-setting victory in halting a large hydroelectric project that would have inundated their lands. Today, the Kayapó supplement their own on-the-ground monitoring of their territory with overflights and Landsat imaging made possible through their partnership with environmental NGOs.

The Pinkaiti Ecological Research Station has been in Aukre, center of the Kayapó indigenous area, for 15 years. During this time, researchers have studied the sustainability of local hunting practices and their impact on fauna. In a rare partnership with Pinkaiti, the University of Maryland has arranged for a small class of students to learn about the reserve, meet the Kayapó, and be taught by them along with researchers.

Courses: Students will enroll in one of the following 6-credit courses.

ANTH 495 Ethnographic Fieldwork

ANTH 698C Advanced Field Training in Ethnology

LASC 448C Special Topics in Latin American Studies: Brazilian Ethnography

ITINERARY: Students will be based initially in Belém, and will travel on many excursions in the surrounding area to learn about community-conservation issues. The course will feature a visit among the Kayapó and first-hand experience of the Kayapó’s partnership with environmental NGOs. In the rare event that student are not permitted to enter the Kayapó area, students will make several excursions from Belém, and get a first-hand experience of ecology and river-dwelling communities in the Amazon region.

Program Cost: \$4,200

Application Deadline: Tuesday, March 1, 2011

For program and course information, please contact **Janet Chernela** at chernela@umd.edu, or visit:

Field Research Opportunity

With the Jane Goodall Institute of Canada and Uganda



The Jane Goodall Institute (JGI) is undertaking a "[Sustainable Livelihoods Project](#)" in Uganda, which aims to improve the health, well-being and livelihoods of local people, while simultaneously conserving and restoring habitat for wild chimpanzee populations. This project will benefit 3,500 people in 700 households, and create forest resources between two forest reserves, for both humans and chimpanzees.



JGI is looking for students to conduct research in the field, to monitor and assess the immediate and long-term impacts of the project, on local communities and the environment. This project takes a holistic approach to conservation and development, and is the first attempt at restoring a forest corridor in the Albertine Rift. Therefore, research will be essential in gathering science-based evidence to inform actions moving forward.

Potential project topics include:

- River restoration and water quality
- Survivorship and success of trees
- Corridor effects, including returning species
- Socio-economic data over time
- Perceptions of local people on wildlife and conservation issues



Logistics: Local staff at the offices in Entebbe and Hoima will provide advice and support throughout. Resources and materials are also available to use at these bases. Basic accommodations are available at the field site (rural western Uganda), with field and lodging assistants present. Staff in Canada and Uganda will assist with project planning and preparations for the field.



Interested? Please contact:

Sophie Muset, Africa Programs & Office Manager
Jane Goodall Institute of Canada
Email: sophie@janegoodall.ca
Phone: 416-978-3565
JaneGoodall.ca

Come join us for an information session on

Haida Gwaii

**Big changes, our success to date and challenges
for the future on Haida Gwaii:
Sustainability of a small island**

When: Thursday, December 8th, 2011

5:10pm

(following the MFC presentations)

Where: Room 4001, Earth Sciences Centre
Faculty of Forestry
33 Willcocks St



Presented by:

Leonard Munt, District Manager
Haida Gwaii Forest District

Ministry of Forests, Lands and Natural Resource Operations

Closer to home



Ontario

Ministry of Natural Resources



Core Courses

Fourth Semester

FOR3006 Case study analysis in forest management

FOR3008 Major Paper in Forest Conservation
Academic and Host Supervisors

Complete remaining electives

Major Paper Defenses
December 2006



A green leaf with a hole and a reflection in water.

Electives and Design Your Own Program

Three Electives (1.5 FTE):

- Forestry or non-forestry graduate courses, directed studies etc.
- Recommended NOT to take any electives in the first semester
- Plus Internship
- Plus Major Paper

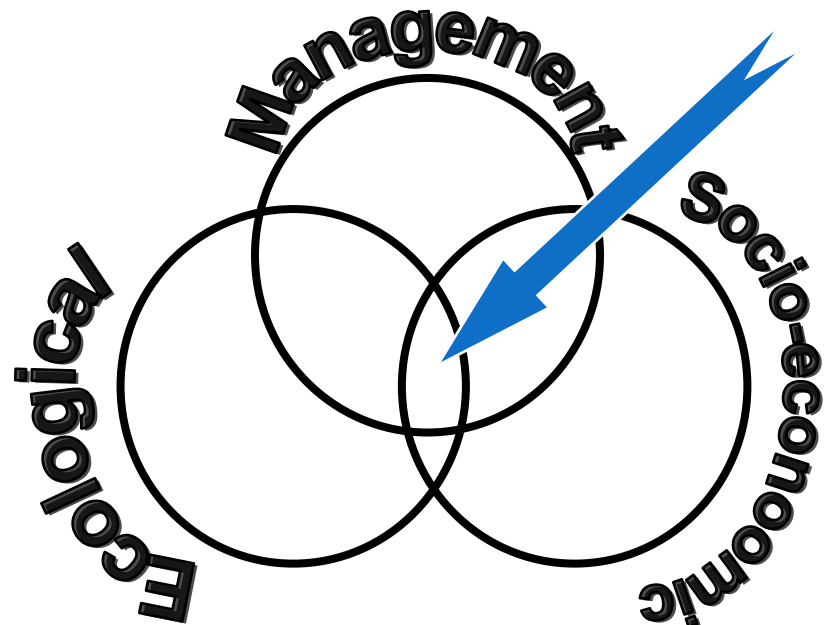


Design your own Program

- Conservation Biology,
- Fire Ecology,
- Human Dimension of Conservation,
- Urban Forest Conservation,
- Forest Health and Protection,
- Tropical Forest Conservation,
- Environmental Conservation,
- Biomaterial and Bio-energy

Graduates of the program are:

- knowledgeable
- problem solvers
- communicators
- integrators
- team workers



A green leaf with a hole and a reflection in water.

Admission Requirements and Application Process

- 4-year Bachelor's degree
- Transcripts (mid-B (80-82%) in both of last 2 years)
- English
- 3 letters of reference
- Letter of interest



Fees and Financial Support

Compulsory annual tuition and incidental fees for M.F.C. candidates in 2013-2014:

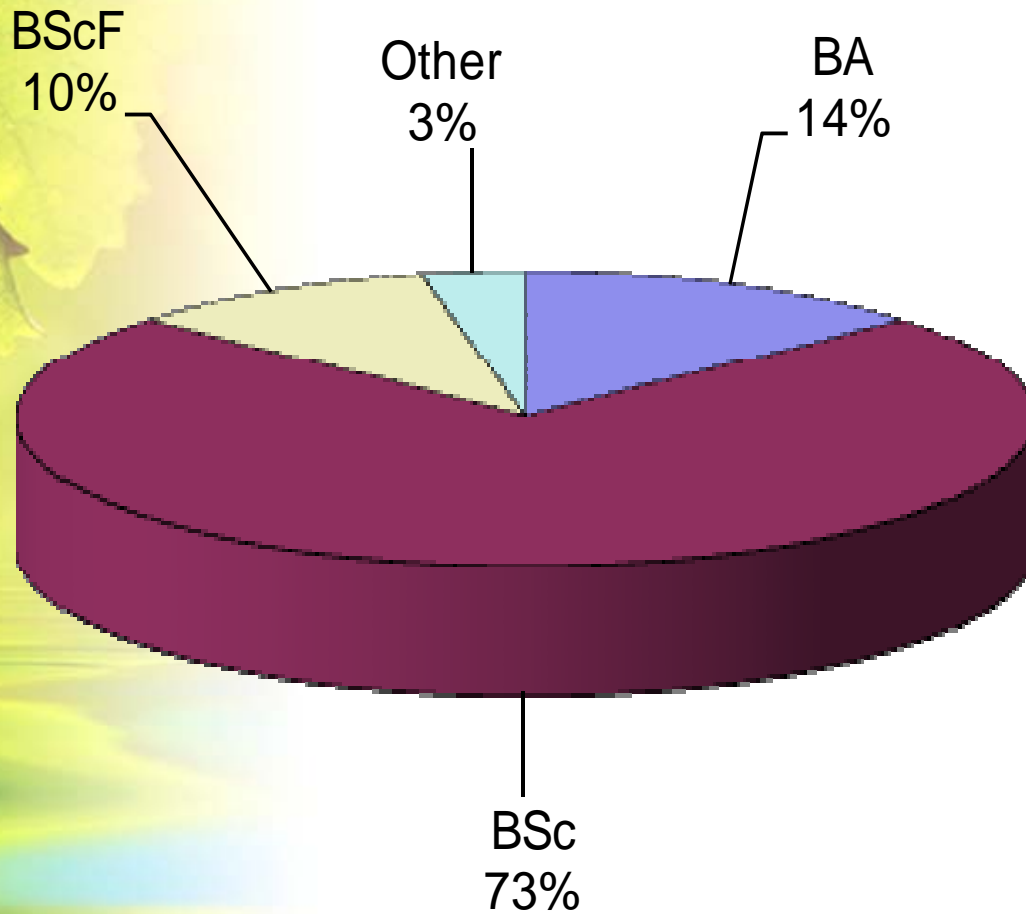
- One year full-time fees from September through August are **\$29,403** per year including mandatory health insurance coverage.
- As a graduate student of the University of Toronto, M.F.C. students have access to the number of facilities and resources existing at the University.



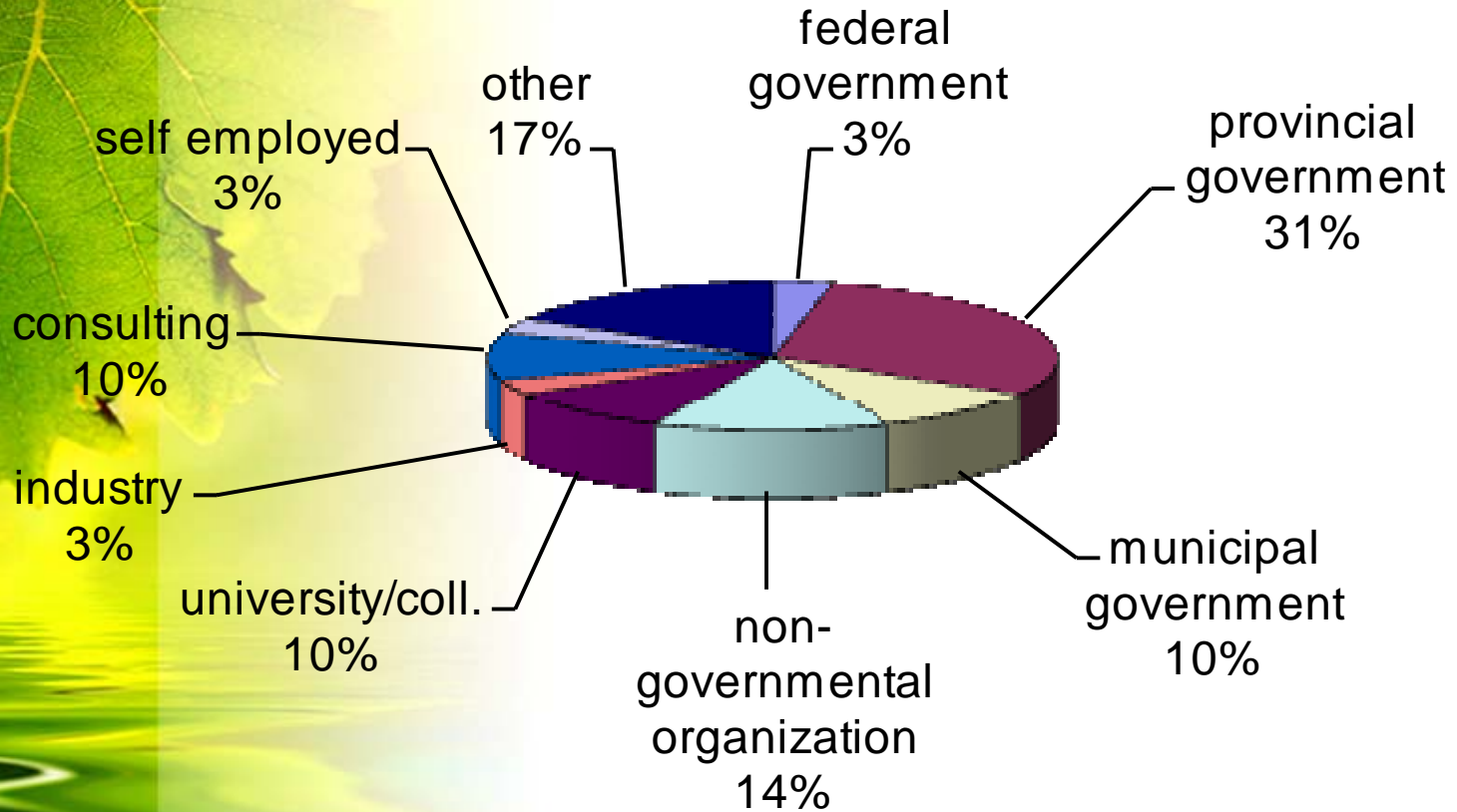
Student Background

- Biology
- Ecology
- Engineering
- Environmental Studies
- Forestry
- Geography
- Natural Sciences & Agricultural
- Relevant Social Sciences
(Anthropology, Economics, Business, History, Policy, etc.)

Undergraduate Degree



Employer Types





Post-graduation work permit program and immigration opportunity

After graduation, students can gain Canadian work experience by applying for a work permit. For details, please refer to:

<http://www.cic.gc.ca/english/study/work-postgrad.asp>

Thanks so much for your attention!

Welcome to Faculty of Forestry!

www.forestry.utoronto.ca

