What is Plant Biology?

Plants and fungi play critical roles in ecosystems and are used for food, fiber, oil, antibiotics, and pharmaceuticals, and they also can be employed to produce novel molecules of agronomic/economic interest. This Major program in Plant Biology allows students to explore life on Earth from the molecular to the supra-organismal level, with a focus on plants and fungal systems and processes that underpin growth and development, stress physiology, nutrition and metabolism, molecular genetics, ecology and evolution, and biodiversity.

Skills of Plant Biology Grads

- Research, analyze, and develop understanding from various scientific literature sources
- Decipher and organize relevant information from multiple sources, and convey a comprehensive scientific argument
- Write literature reviews and scientific reports
- Learn field and laboratory technologies and techniques
- Develop knowledge of how organisms interact with the environment
- Gain practical experience researching and understanding global problems and how plants can be used to address them
- Conduct and design experiments to test hypothesis
- Gather evidence and analyze data using statistical methods to test predicted outcomes

What makes Plant Biology at UTSC unique? This educational experience will allow students to recognize the unique niche of plants within the natural world and students will develop the cognitive and technical skills that are used to address local and global challenges. The program encourages active learning through its capstone course and by promoting participation in research activities.

Entry-Level Jobs for Bachelor Grads

Common employment destinations include:
- Field researcher: Agriculture and Environmental agencies
- Research or Teaching Assistant in Universities
- Lab Technician in Industry, Government, Healthcare
- Project Officer for Environmental Agencies
- Forestry/horticulture industry specialist
- Educator or Program Developer in Education
- Inspector, Canadian Food Inspection Agency
- Researcher, Biotechnology industry
- Intern, Ministry of Natural Resources

Graduate & Professional Studies

Popular further education opportunities include:
- Biology – Master, PhD
- Forest Conservation – Master, PhD
- Plant Sciences – Master, PhD
- Public Policy – Master, PhD
- Environmental Science - Master, PhD
- Sustainability – Master, PhD
- Education – Bachelor, Master
- Biotechnology – Post Diploma, Master, PhD
- Food Security – Graduate Certificate
- Project Management - Graduate Certificate
- Energy Management - Graduate Certificate
- Environmental Technology - Post-Graduate Certificate

Use LinkedIn!

UTSC Biology graduates are working in Research, Education, Healthcare and Business.

Attend our LinkedIn workshop to learn about the Find Alumni tool for networking!

Biology Grads from UTSC have gone on to:
- Intellectual property lawyer/patent agent
- Genome Diagnostics researcher (UHN)
- Teacher (Toronto Catholic District School Board)
- Canada Food Inspection Agency (Inspector)
Examples of Fields that ‘Fit’ the Skills of Plant Biology Grads

- Federal and provincial government agencies
- Colleges, universities, and research institutes
- Conservation/Environmental authorities
- Not-for-profit/non-governmental organizations
- Biotechnology and bio-medical industries
- Food & Agriculture organizations

Your 4-Year Career Exploration Action Plan

1. **Do Your Research**

The databases below provide you with details about job prospects, nature of work, educational requirements, working conditions, pay and related career paths:

- **Career Cruising**: Log into cln.utoronto.ca, click on Resources, and click on Career Cruising to be logged in automatically
- **O*Net**: online.onetcenter.org (U.S. site)

Attend our workshop **Discover Your Skills and Career Options**, meet with a Career Counsellor, and use our resources to get to know your skills, values, personality and interests: www.utsc.utoronto.ca/aacc/get-know-yourself

Use the advice on our tip sheets for gathering info: www.utsc.utoronto.ca/aacc/tipsheets

- Information Interviews
- Working On-Campus
- Internships
- Volunteering

2. **Explore Career Options & Get Experience**

Gain exposure to your options in the world of work and make connections while you’re a student via campus events and programs listed on cln.utoronto.ca and ccr.utoronto.ca:

- Extern Job Shadowing
- In the Field
- Explore It! (course-based)
- Partners in Leadership (4th year students)
- iLead, uLead, weLead (Dep’t of Student Life)
- Employer Information Sessions
- Career & Volunteer Fairs
- Departmental Student Association Events

Apply for **Work Study** jobs in CLN in Fall and Spring! You might also find work via www.scsu.ca/jobs.

- Find networking opportunities, internship programs and entry-level jobs via websites like www.talentegg.ca and www.charityvillage.ca.
- As an upper year student (14+ credits), attend UTSC’s Get Hired Conference and participate in Jobs for Grads.
- As a graduate, explore internships and other trainee programs like www.careeredge.ca

3. **Build Your Network**

Explore Professional Associations and get involved: volunteer for their events and conferences, and get to know people in your industry of interest. These are your future mentors, supervisors and colleagues!

- **Biology Student Association at UTSC**: www.thebiosa.org
- **BioTalent Canada**: biotalent.ca
- **Biotechnology Industry Association**: www.bio.org
- **Canadian Food Inspection Agency**: www.inspection.gc.ca
- **Conservation Ontario**: www.conservation-ontario.on.ca
- **Food Secure Canada**: foodsecurecanada.org
- **Good Works**: www.goodwork.ca
- **Ministry of Natural Resources**: www.ontario.ca/jobs-and-employment/paid-internships-government
- **Environmental Careers Organization Canada (ECO Canada)**: www.eco.ca

BioteCanada - www.biotech.ca
Sustain Ontario - sustainontario.com
Parks Canada - www.pc.gc.ca

Please note: This document is a starting point for your further research into career options in this field of study. For more information on this program and course requirements, please visit the departmental website at the top of the first page.