

# FORENSIC BIOLOGY (HBSc)

## Forensic Science Program

**Forensic Science** is the study of physical evidence in a modern legal context. It is best defined as “science in service to the courts.” Forensic Biology is the study of forensics and molecular biology.

UTM’s Forensic Science program, the first of its kind in Canada, is designed to provide the student with an understanding of scientific analyses, theories, laboratory skills, applications, and field techniques — while allowing the student to emphasize one particular area in greater detail. We have developed well-established partnerships with organizations such as the Centre of Forensic Sciences, the Office of the Chief Coroner for the Province of Ontario, the Ontario Provincial Police, the RCMP, and numerous other police services and agencies worldwide.

## MAKE THE MOST OF YOUR TIME AT UTM!

We want to help you maximize your university experience, so we’ve pulled together information and interesting suggestions to get you started, although there are many more! As you review the chart on the inside pages, note that many of the suggestions need not be restricted to the year they are mentioned. In fact, activities such as joining an academic society, engaging with faculty and seeking opportunities to gain experience should occur in each year of your study at UTM. Read through the chart and create your own plan using **My Program Plan** found at [www.utm.utoronto.ca/program-plans](http://www.utm.utoronto.ca/program-plans)

### Programs of Study (POSt)

- Specialist Program ERSPE1410, Forensic Biology (Science)
- Major Program ERMAJ0205 Forensic Science (Science)
- Minor Program ERMINO205 Forensic Science

### Check out...

How is biological evidence interpreted in the forensic context? Take FSC315H5 to learn about biological and instrumental techniques used for the analysis of evidentiary items, including DNA, bodily fluids and hair.

### What can I do with my degree?

The career you choose will depend on your experience and interests. Visit the Career Centre to explore your career options.

**Careers for Graduates:** Forensic laboratory analyst; Coroner; Crime scene technician; Biological technician; Forensics scientist; Bacteriologist; Criminologist; Crime scene investigator; Medico-legal investigator; Pathology technician.

**Workplaces:** Biology labs; Government; Forensic laboratories; Medical examiners/coroner offices; Scientific R&D companies; Pharmaceutical companies; Police agencies.



# FORENSIC BIOLOGY

## SPECIALIST Program Plan

## HOW TO USE THIS PROGRAM PLAN

Read through each year. Investigate what appeals to you here and in any other Program Plans that apply to you.

Visit [www.utm.utoronto.ca/program-plans](http://www.utm.utoronto.ca/program-plans) to create your own plan using [My Program Plan](#). Update your plan yearly.



	1 <sup>ST</sup> YEAR	2 <sup>ND</sup> YEAR
PLAN YOUR ACADEMICS*	<p>Enrol in BIO152H5, 153H5; CHM110H5, 120H5; FSC239Y5; (MAT132H5, 134H5) / (135H5, 136H5) / 134Y5 / 135Y5 / 137Y5 / 157Y5; PHY136H5, 137H5.</p> <p>Choose a program of study (Subject POST) once you complete 4.0 credits. Use the <b>Degree Explorer</b> and the <b>Academic Calendar</b> to plan your degree.</p> <p>Develop foundational academic skills and strategies by enrolling in a <b>utmONE</b> course. Build community and gain academic support through <b>LAUNCH</b>. Join a RGASC <b>Peer Facilitated Study Group</b>.</p>	<p>Enrol in courses BIO206H5, BIO207H5, BIO259H5, (BIO208H5, BIO209H5)/ FSC316H5; CHM242H5, CHM243H5; FSC271H5.</p> <p>Consider applying for <b>Research Opportunity Program (ROP)</b> courses BIO299Y, FSC399Y and BIO399Y. Visit the EEU website for <b>ROP Course Prerequisites</b>. Attend the RGASC's <b>PART</b> to enhance your research skills.</p>
BUILD SKILLS	<p>Use the <b>Co-Curricular Record (CCR)</b>. Search for opportunities beyond the classroom, and keep track of your accomplishments.</p> <p>Attend the <b>Get Hired Fair</b> through the Career Centre (CC) to learn about on- and off-campus opportunities.</p> <p>Attend the <b>Experiential Education Fair</b>.</p>	<p>Use the <b>Career &amp; Co-Curricular Learning Network (CLNx)</b> to find postings for on- and off-campus work and volunteer opportunities.</p> <p>Work on-campus through the <b>Work-Study program</b>. View position descriptions on the CLNx.</p> <p>Sign up to become an <b>Experiential Education Unit Student Ambassador</b> and earn a CCR notation.</p>
BUILD A NETWORK	<p>Networking simply means talking to people and developing relationships with them. Start by joining the <b>UTM Forensics Society (IVNVI)</b>. Find them on Facebook and follow them @utmforensics on Twitter. Go to IVNVI's <b>Meet the Prof Night</b>.</p> <p>Visit the UTM Library <b>Reference Desk</b>.</p>	<p>Do you have a professor you really like or connect with? Ask them a question during office hours. Discuss an assignment. Go over lecture material. Don't be shy! Learn <b>Tips On How to Approach a Professor</b> available through the Experiential Education Unit (EEU).</p>
BUILD A GLOBAL MINDSET	<p>Engage with the many programs offered by the <b>International Education Centre (IEC)</b>, whether you are an international or domestic student. Consider joining the <b>Canada Eh?</b> day trips or <b>English Language Conversation Circles</b> to deepen your global mindset.</p> <p>First-year international students can also take advantage of <b>THRIVE'IN</b>, a one-day conference dedicated to helping you start your UTM journey successfully.</p>	<p>Participate in <b>International Education Week</b> and engage in programs like <b>Global and Intercultural Fluency Training Series (GIFTS)</b> to build on your leadership and communication skills in global citizenship. Learn about and prepare for a future <b>UTM Abroad Experience</b> through the IEC to strengthen and enhance your intercultural skill set, and learn about other cultures while sharing your own!</p>
PLAN FOR YOUR FUTURE	<p>Attend the <b>Program Selection &amp; Career Options</b> workshop offered by the Office of the Registrar and the CC.</p> <p>Check out <b>Careers by Major</b> at the CC to see potential career options.</p>	<p>Explore careers through the CC's <b>Job Shadow Program</b>.</p> <p>Considering <b>further education</b>? Attend the CC's <b>Graduate &amp; Professional Schools Fair</b>. Talk to professors – they are potential mentors and references.</p>

\*Consult the Academic Calendar for greater detail on course requirements, program notes and degree requirements.

3 <sup>RD</sup> YEAR	4 <sup>TH</sup> OR FINAL YEAR
<p>Enrol in courses BIO362H5; CHM361H5; (FSC300H5, FSC302H5)/ (FSC210H5, FSC303H5), FSC315H5, FSC330H5, FSC335H5, FSC340H5, FSC360H5.</p> <p>Throughout your undergraduate degree:</p> <ul style="list-style-type: none"> <li>use the <b>Degree Explorer</b> to ensure you complete your degree and program requirements.</li> <li>see the <b>Office of the Registrar</b> and the <b>Forensic Science Academic Advisor</b>.</li> </ul>	<p>Enrol in BIO458H5/372H5/341H5; FSC415H5, 416H5, 481Y5/ (482H5, 483H5/485H5). Attain 0.5 additional credits from: BIO341H5, 374H5, FSC307H5, 350H5, 70H5, 371H5, 401H5, 402H5, 406H5, 407H5.</p> <p>Conduct a mentored individual research experience in FSC481, work in a collaborative research team in FSC483, or experience professional opportunities in FSC485. If you're planning a career in police investigation, you may consider the FSC407 field school as an alternate capstone experience.</p> <p>Log on to ACORN and request graduation.</p>
<p>Become a volunteer in the <b>Forensic Science Outreach Program</b>, and teach the community about your unique and highly specialized skills through student led workshops.</p> <p>Explore your interests. Why not pass on your passion for science? Be a <b>UTM Let's Talk Science Outreach</b> volunteer to support educators and help youth form positive attitudes towards the role that STEM plays in their lives and futures.</p>	<p>Learn techniques forensic scientists use in the field! Collect, process, and analyze evidence found at a "crime scene" through FSC407H5. Speak to the <b>Forensic Science Academic Advisor</b>.</p> <p>Apply to the Ontario Ministry of Natural Resources Internship Program as a recent graduate. View the <b>MNRF website</b> for details.</p>
<p>Establish a professional presence on social media (e.g., LinkedIn).</p> <p>Attend the <b>Biology Seminar Series</b>: weekly departmental seminars featuring exciting guest speakers from across North America.</p>	<p>Join a professional association. Check out the <b>Canadian Society of Forensic Science</b>.</p> <p>Attend a conference such as <b>Ontario Biology Day</b> and the <b>Forensic Training Conference</b>.</p>
<p>Expanding your intercultural awareness and developing intercultural skills will help you in your academics, personal growth and are highly sought out by employers.</p> <p><b>Earn credits overseas!</b> Apply to study for a summer term, or year at one of 170+ universities. Speak to the IEC for details about <b>Course Based Exchange</b>, funding and travel safety. Attend Global Learning Week to learn about the various opportunities available to you!</p>	<p>Engage in programs like <b>ISTEP</b> and <b>THRIVE</b> to support your transition out of the University!</p>
<p>What's your next step after undergrad?</p> <p>Entering the workforce? Evaluate your career options through a CC <b>Career Counselling appointment</b>. Create a job search strategy - book a CC <b>Employment Strategies</b> appointment.</p> <p>Considering further education? Research application requirements, prepare for admission tests (LSAT, MCAT), and research funding options (OGS, SSHRC).</p>	<p>Market your skills to employers. Get your <b>resume critiqued</b> at the CC. Attend the CC workshop <b>Now That I'm Graduating What's Next?</b></p> <p>Write a strong application for further education. Attend the CC's <b>Mastering the Personal Statement</b> workshop.</p> <p>Ready to transition from the classroom to the workplace? Check out the <b>Recent Graduate Opportunities Program (RGOP)</b>.</p>

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Visit [www.utm.utoronto.ca/program-plans](http://www.utm.utoronto.ca/program-plans) for the online version and links.

# FORENSIC BIOLOGY

## Skills developed in Forensic Biology

To be competitive in the job market, it is essential that you can explain your skills to an employer. Visit the Career Centre to learn how to articulate and market the following skills:

**Technical:** DNA and genomic sequencing; make and record accurate measurements; make observations, draw diagrams and take photographs; crime scene investigation; and use statistical tests.

**Communication:** report writing; verbal testimony; understanding of cultural diversity; translate scientific evidence; and analyze and present data.

**Organizational:** casework; teamwork; and understanding legal issues related to evidence.

**Problem-solving:** identify alternative solutions and interpret lab findings.

**Research:** draw conclusions based on the evidence obtained and communicate results of investigative work through proper channels based on the conclusions drawn.

## Get involved

Check out the 100+ student organizations on campus. Here are a few:

- UTM Forensics Society (IVNVI)
- Erindale Biology Society (EBS)
- UTM Student Union (UTMSU)
- UTM Athletics Council (UTMAC)

For a listing of clubs on campus visit

**Student Groups & Societies Directory**

## Services that support you

- **Accessibility Services (AS)**
- **Career Centre (CC)**
- **Centre for Student Engagement (CSE)**
- **Equity, Diversity & Inclusion Office (EDIO)**
- **Experiential Education Unit (EEU)**
- **Health & Counselling Centre (HCC)**
- **Indigenous Centre (IC)**
- **International Education Centre (IEC)**
- **Office of the Registrar (OR)**
- **Recreation, Athletics and Wellness Centre (RAWC)**
- **Robert Gillespie Academic Skills Centre (RGASC)**
- **UTM Library, Hazel McCallion Academic Learning Centre (HMALC)**

## Forensic Science Program

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416-705-5876

[www.utm.utoronto.ca/forensic](http://www.utm.utoronto.ca/forensic)

## FUTURE STUDENTS

### Admission to UTM

All program areas require an Ontario Secondary School Diploma, or equivalent, with six Grade 12 U/M courses, or equivalent, including English. The admission average is calculated with English plus the next best five courses. The Grade 12 prerequisites for this program are Advanced Functions, Biology, Chemistry and Physics. The approximate average required for admission is mid- to high-70s. More information is available at [utm.utoronto.ca/viewbook](http://utm.utoronto.ca/viewbook).

**NOTE:** During the application process, applicants will select the Forensic Science admissions category but will not officially be admitted to a formal program of study (Specialist, Major, and/or Minor) until after first year.

### Sneak Peek

Interested in the design of the human body? Learn the fundamentals of human anatomy and physiology in BIO210Y5. What is the role of a coroner? Take FSC239Y to find out about crime scene investigation, forensic botany and forensic entomology. Get excited for FSC481Y5! You will spend at least 200 hours at a forensic agency collaborating with a professional forensic specialist on an original project.

Our courses provide students the opportunity to learn about all aspects of forensic science in the classroom and to apply their knowledge to practical assignments using state-of-the-art technology and instruments. Courses are taught by professionals who bring their own expertise and unique field experience to the classroom.

### Student Recruitment & Admissions

Innovation Complex, Room 1270  
University of Toronto Mississauga  
3359 Mississauga Rd  
Mississauga ON Canada L5L 1C6

905-828-5400

[www.utm.utoronto.ca/future-students](http://www.utm.utoronto.ca/future-students)

