PALEONTOLOGY (HBSc)

Department of Biology

Paleontology is a basic science concerned with the evolutionary history of life. Students are required to have a broad knowledge base of biological and geological knowledge. Areas of detailed knowledge will include vertebrate and invertebrate paleobiology, evolutionary biology, systematics, functional morphology, sedimentology, stratigraphy, and plate tectonics.

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

Programs of Study (POSt)

- Major Program ERMAJ1004 Paleontology (Science)

Check out...

Why not interpret ancient geological environments on the north shore of Lake Huron? Apply to ERS325H5 (Field Camp I). Get excited about vertebrate form and function! In BIO354H5 the design and adaptive consequences of vertebrate structure are revealed.

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: Curator; Survey technician; Taxidermist; Paleontologist; Research consultant; Field technician/director; Epidemiologist; Museum technician; Primatologist; University professor; Laboratory technician; Archivist; Preservationist/restorer.

Workplaces: Government; Scientific R&D; Non-profit agencies; Conservation authorities; Zoos, aquariums, national/provincial parks; Academic medical centres/laboratories; Universities and colleges; Museums.
Academic year all students will be required to complete BIO259H5 as the statistics course for this program. **STA215H5 will no longer be accepted as an appropriate course for this program AFTER 2022-2023 Academic year. Beginning 2023-2024**

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

FOR YOUR
GLOBAL
BUILD A
ACADEMICS
PLAN YOUR
NETWORK

MAJOR Program Plan

1ST YEAR

Enrol in courses BIO150H5, 153H5; CHM110H5, 120H5; MAT132H5, 134H5; and ERS101H5/ERS111H5. Achieve 1.0 credit from the second list of required first year courses in the Academic Calendar.

Choose a program of study (Subject POS) once you complete 4.0 credits. Use the Degree Explorer and the Academic Calendar to plan your degree.

Develop foundational academic skills and strategies by enrolling in a uBioOne course. Build community and gain academic support through LAUNCH. Join a RGASC Peer Facilitated Study Group.

**BUILD SKILLS**

Use the Co-Curricular Record (CCR). Search for opportunities beyond the class list, and keep track of your accomplishments.

Attend the Get Hired Fair through the Centre for Career (CC) to learn about on- and off-campus opportunities.

Attend the Experiential Education Fair.

**BUILD A NETWORK**

Networking simply means talking to people and developing relationships with them. Start by joining the Erindale Biology Society (EBS). Follow them @utmEBS. Go to the EBS Meet the Prof Night, or the Biology department’s Walk with your Professor.

Visit the UTM Library Reference Desk.

**BUILD A GLOBAL MINDSET**

Attend events held by the International Education Centre (IEC), whether you are an international or domestic student. Explore your culture and other cultures through weekly/regular conversations. Language Conversation Circles, debates, and activities to enhance your global and intercultural mindset.

Engage in programs like the Global and Intercultural Fluency Training Series (GIFTS) to strengthen and enhance your intercultural skill set, and learn about other cultures while sharing your own.

2ND YEAR

Enrol in courses BIO208, 209; ERS201, 202, 203; ETS261 and **BIO259H5 or STA215H5.**

Consider applying for the Research Opportunity Program (ROP) courses BIO299Y and BIO399Y. Visit the EEU website for ROP Course Prerequisites. Attend the RGASC’s P.A.R.T. to enhance your research skills.

Use the Career & Co-Curricular Learning Network (CLNs) to find postings for on- and off-campus work and volunteer opportunities as well as Work-Study.

Ask your professor about volunteering in their lab.

**3RD YEAR**

Enrol in courses ERS325H5; BIO354H5, 356H5; and ESS331H1.

Throughout your undergraduate degree:

- use the Degree Explorer to ensure you complete your degree and program requirements.
- see the Office of the Registrar about degree requirements and the Biology Undergraduate Advisor about program requirements.

Explore your interests. Do you want to make UTM eco-friendly? Consider applying for the Research Opportunity Program (ROP) courses BIO299Y and BIO399Y. Visit the EEU website for ROP Course Prerequisites. Attend the RGASC’s P.A.R.T. to enhance your research skills.

Establish a professional presence on social media (e.g. LinkedIn).

Curious about grad school? Connect with a grad student through the CSE's Grad Connect program to get inside scoop.

Get a global experience through our Biology Seminar Series. Every Friday during the academic year, the Department of Biology hosts an exciting seminar given by a guest speaker. Guest speakers are from Ontario, across Canada, as well as International. Topics cover every aspect of biology. All Biology students are welcome to attend.

What's your next step after undergrad?


Considering further education? Research application requirements, prepare for admission tests (LSAT, MCAT), and research funding options (OGS, NSERC, CIHR).

**4TH OR FINAL YEAR**

Attain 1.0 additional BIO credits. Ensure you have at least 5.0 credits at the 300/400 level, of which 1.0 must be at the 400 level.

Conduct a research project under the supervision of a faculty member through BIO481Y5. Speak to the Biology Undergraduate Advisor for advice and details.


Skills are transferable to any job regardless of where you develop them. Need to strengthen your presentation skills? Consider a role as an RGASC Facilitated Study Group Leader.

Gain research skills by working one-on-one with graduate students and a professor through BIO481Y5. Speak to the Biology Undergraduate Advisor.

Establish a professional presence on social media (e.g. LinkedIn).

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Get a global experience through our Biology Seminar Series. Every Friday during the academic year, the Department of Biology hosts an exciting seminar given by a guest speaker. Guest speakers are from Ontario, across Canada, as well as International. Topics cover every aspect of biology. All Biology students are welcome to attend.

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**PLAN FOR YOUR FUTURE**

Speak to the Biology Undergraduate Advisor for biology program advice and details.

Attend the Program Selection & Career Options workshop offered by the Office of the Registrar and the CC.

Check out Careers by Major at the CC to see potential career options.

Explore careers through the CC’s Job Shadowing Program.

Consider further education? Attend the CC’s Graduate & Professional Schools Fair. Talk to professors – they are potential mentors and references for further education.

What's your next step after undergrad?


Considering further education? Research application requirements, prepare for admission tests (LSAT, MCAT), and research funding options (OGS, NSERC, CIHR).

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

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Skills developed in Paleontology

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:

**Communication & interpersonal**: write scientific reports; present research findings; interact professionally with a multidisciplinary team of researchers, technicians, students and professors; and literacy writing.

**Research**: define a problem; establish hypotheses; gather scientific data; analysis of materials; and review scientific literature.

**Technical**: use specialized computer programs; perform laboratory procedures; maintain laboratory equipment and instrumentation; and comply with quality control procedures.

**Quantitative**: analyze data for trends and apply statistical tests to data.

**Critical thinking & problem-solving**: logically interpret trends and results.

**Get involved**

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

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

For a listing of clubs on campus visit [www.utm.utoronto.ca/clubs](http://www.utm.utoronto.ca/clubs).

**Department of Biology**

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Undergraduate Advisor: 905-828-3999
d.matias@utoronto.ca
[www.utm.utoronto.ca/biology](http://www.utm.utoronto.ca/biology)

**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)

**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 and Chemistry. The approximate average required for admission is low- to mid-80s. More information is available at [utm.utoronto.ca/viewbook](http://utm.utoronto.ca/viewbook).

**NOTE**: During the application process, applicants will select the Life Sciences 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**

Peel back the layers of the earth in ERS202H5 – a course that takes a close look at the dynamic evolution of the surface and of the interior of the Earth.

Effective biological training involves careful study of real organisms, both living and dead. Consequently, almost all Biology courses with laboratories involve students in one or more of the following activities with animals, plants, and/or microorganisms: collecting and preserving organisms from the field; dissecting or handling preserved or euthanized specimens (or properly anaesthetized living specimens); observing and making measurements on organisms maintained under laboratory conditions approved by the Canadian Council of Animal Care.

**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)