

# Physical Sciences (HBSc)

Department of Physical & Environmental Sciences

Specialist

Major

Minor

The Physical Sciences Major is intended for students desiring a general background in the physical sciences with emphasis in the area of astronomy, physics and physical chemistry. It is intended for students who want to combine physical skills with work in other subjects, and those who do not intend to pursue graduate studies.

**Complementary Programs:** Major programs in Mathematical Sciences, Chemistry, Biochemistry

## Make the most of your time at UTSC!

We want to help you maximize your university experience, so we've pulled together information and 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 listed. In fact, activities such as joining a student club, engaging with faculty and seeking opportunities to gain experience should occur in each year of your study.

## Check out future career opportunities and skills acquired from completing this program:

### Competencies & Skills

- Apply physical principles to problems and formulate solutions
- Integrate theoretical approaches
- Mathematical and computational modelling
- Design and execute experiments

### Careers for Graduates

- Researcher in Academia or Industry
- Financial Industry
- Data Science
- Education
- Policy and Data Analyst in Government

### Further Education

- Teacher Education
- Finance
- Engineering
- Nuclear Medicine



Connect with Alumni at events on **CLNx** and through **Partners in Leadership**, **10,000 Coffees**, **LinkedIn** and more!

For more information go to:  
[uoft.me/alumni-services](https://uoft.me/alumni-services)

**NEED HELP CHOOSING  
YOUR PROGRAM?**

See [uoft.me/choosing](https://uoft.me/choosing)



# Physical Sciences (HBSc) Major Program Pathway

## HOW TO USE THIS PROGRAM PATHWAY

Read through each year; investigate what appeals to you here and in other Program Pathways that apply to you. Note that this Pathway is only a suggestion. **For the most up to date information, please check the UTSC Calendar.**

### YEAR 1 (0 - 3.5 Credits)

### YEAR 2 (4 - 8.5 Credits)

### YEAR 3 (9 - 13.5 Credits)

### YEAR 4 or FINAL YEAR (14 - 20 Credits)

#### CHOOSE YOUR COURSES WISELY

- 3.5 credits as follows: PHYA10H3, PHYA21H3, CHMA10H3, CHMA11H3, MATA30H3, MATA23H3, [MATA36H3 or MATA37H3].
- Explore different kinds of courses; this will also help with fulfilling breadth requirements and electives.
- Use Degree Explorer and the UTSC Calendar to plan your courses and program.

- 2.5 credits from: PHYB10H3, PHYB21H3, PHYB52H3, PHYB54H3, PHYB56H3, MATB24H3, MATB41H3, MATB42H3, MATB44H3, ASTB23H3, CHMB20H3, CHMB21H3, STAB22H3.
- Use Degree Explorer and meet with your Program Advisor to ensure you are on track with your degree.

- 2.0 credits from (taken in year 3 to 4): ASTC25H3, MATC34H3, MATC46H3, PHYC50H3, PHYC56H3, PHYC11H3, PHYC54H3, PHYD37H3, PHYD38H3, PSCB57H3, PSCD02H3, PHYD26H3, PSCD50H3, [PHYD01H3 or PHYD72H3].
- Use Degree Explorer to ensure you are on track with your degree.

- Consider an independent research project with a faculty member (PHYD01 or PHYD72).
- Ensure you have fulfilled your breadth requirements.
- Use Degree Explorer to ensure you are on track to graduate.
- Register your "Intent to Graduate" on ACORN by the deadline.

#### DEVELOP YOUR ACADEMIC & RESEARCH SKILLS

- Attend Facilitated Study Groups.
- Use the Physics Aid Centre for support.
- Schedule an appointment with your Program Librarian for in-depth library research assistance.
- Writing support is available at the Centre for Teaching & Learning (CTL) Writing Centre.

- Check the Research Catalogue and jobs on CLNx for possible research opportunities.
- Drop by the Math & Statistics Learning Centre to have your course-related questions answered.

- Take an elective course to expand your academic horizons and skills.
- Contact professors about summer research opportunities.
- Attend the department's iSPEAC seminar series where invited guests share their cutting-edge research.

- Apply for the Academic Travel Fund through DSL to conduct research, present at a conference, or engage with the academic community internationally.
- Consider research courses in physics (or other disciplines).

#### APPLY THEORY TO PRACTICE

- Attend the UTSC Faculty Mix & Mingle Fair to connect with professors and learn more about their specialties.
- Start building your Co-Curricular Record (CCR) and search for Experiential Learning opportunities.

- Check out Global Research Abroad opportunities through the International Student Centre (ISC) to gain valuable international and research experiences.

- Build on your skills and knowledge through relevant events offered through your department, student groups, DSL and the AA&CC.

- Attend the Summer & Full-time Job Fair in January to meet with potential employers looking to hire students for summer and full-time positions relevant to your field.

#### BECOME AN ENGAGED CITIZEN (LOCALLY & GLOBALLY)

- Join the Environmental and Physical Sciences Students' Association (EPSA) and get involved in their activities.
- Volunteer in DSL's Alternative Reading Week program to gain experience and knowledge about social change and community development.

- Look into ISC's Global Learning opportunities, such as the Summer Abroad, Explore, or Student Exchange Programs.
- Consider volunteering at science events such as the Scarborough Science Fair and Science Literacy Week.

- Consider running for an elected position in EPSA or another campus club.
- Become a tutor at the Physics Aid Centre.

- Participate in the AA&CC's Partners in Leadership program to learn and network with an alumni mentor about transitioning into the work field or further education.

#### PLAN FOR YOUR FUTURE CAREER

- Volunteer with organizations to explore your interests; check listings on CLNx.
- Attend the UTSC Get Experience Fair in September and register with SCSU's Volunteer Network Program to explore opportunities.

- Gain experience by applying for a summer, part-time or Work Study position via CLNx.
- Considering grad school? Speak to professors and advisors early so you are on track.
- Explore careers through the AA&CC's Job Shadowing and In The Field programs.

- Plan a career path with a staff member at the AA&CC.
- Check CLNx for networking events and employer information sessions to attend.
- Attend the Graduate & Professional School Fair in September.

- Attend the AA&CC's Get Hired job search conference in April/May.
- Attend a Jobs for Grads orientation for a job search "crash course" and for access to full-time job listings.
- Discuss grad school plans early with staff at the AA&CC and your professors; get your Personal Statement reviewed in the AA&CC.

# Physical Sciences (HBSc)

Department of Physical & Environmental Sciences

## SERVICES AT UTSC THAT SUPPORT YOU:

To learn about resources and departments that can support you, download the UTSC Student Experience app or visit [uoft.me/StARTNow](https://uoft.me/StARTNow)

### Diversity & Inclusion

The University of Toronto Scarborough commits to intentionally foster a welcoming and supportive environment for students, faculty, and staff where diversity is valued, and every member of the community feels a sense of belonging on campus.

[utsc.utoronto.ca/edo/](https://utsc.utoronto.ca/edo/)

### Academic Integrity

The university community supports an environment of academic integrity; these are values that include honesty, trust, fairness, respect and responsibility. Learn about the university's academic rules and how to avoid accidental plagiarism by attending an Academic Integrity Matters (AIM) workshop.

[academicintegrity.utoronto.ca/](https://academicintegrity.utoronto.ca/)

### Healthy Campus

UTSC provides supportive environments, resources and services to empower students to maintain their overall physical and mental health and foster their academic success.

[uoft.me/healthycampus/](https://uoft.me/healthycampus/)

### Co-Curricular Record

The co-curricular record is an official institutional document that recognizes your involvement outside the classroom as a significant part of your U of T experience.

[clnx.utoronto.ca/ccr](https://clnx.utoronto.ca/ccr)

## FUTURE STUDENTS

For admission requirements to UTSC, check out the U of T Scarborough Viewbook or contact:

### Admissions & Student Recruitment

University of Toronto Scarborough  
Room HL104, Main Floor, Highland Hall  
416-287-7529

[admissions@utsc.utoronto.ca](mailto:admissions@utsc.utoronto.ca)

## CURRENT STUDENTS

### Departmental Contact

Prof. Salam Tawfiq,  
[salam.tawfiq@utoronto.ca](mailto:salam.tawfiq@utoronto.ca)

### Physical Sciences Librarian

Sarah Forbes, [s.forbes@utoronto.ca](mailto:s.forbes@utoronto.ca),  
416-287-5616

### Academic Advising & Career Centre

Room AC213 | 416-287-7561

### Department of Student Life

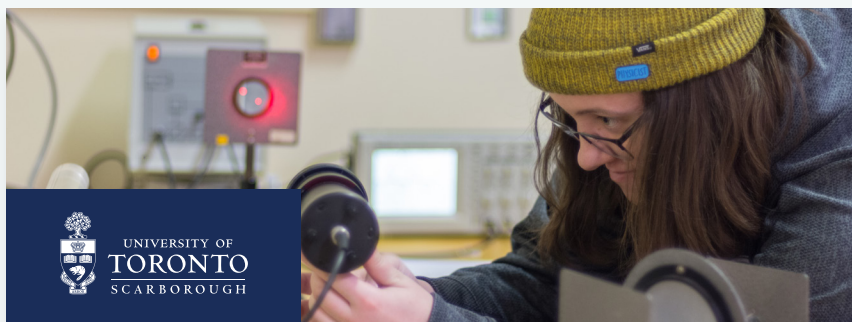
Room SL157 | 416-208-4760

### Environmental & Physical Sciences Students' Association (EPSA)

<https://www.mye psa.ca/>

## DID YOU KNOW...

This is a highly flexible program that gives students opportunities to engage in physics, chemistry, and astronomy.



## Glossary of acronyms:

AA&CC - Academic Advising & Career Centre

CLNx - Career & Co-Curricular Learning Network

CCR - Co-Curricular Record

CTL - Centre for Teaching and Learning

DSL - Department of Student Life

EPSA - Environmental and Physical Sciences

Students' Association

ISC - International Student Centre

iSPEAC - invited Speakers in Physics, Environmental science, And Chemistry