Chemistry plays a vital and well-integrated role in many areas of scientific discovery, including the development of new drugs, materials and diagnostics. Advancements made in the field of chemistry have brought improvements to our quality of life, and will help us to control the impact we are making on our environment in order to form the basis for a strong economy. Chemistry plays a major role in solving global issues such as combating disease, feeding our growing population and providing clean energy.

Chemistry at UTM provides preparation for work in areas such as medicine, pharmaceutical and biotechnology research, materials production and quality assurance.

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)

- Specialist Program ERSPE1995 Biological Chemistry (Science)
- Specialist Program ERSPE1376 Chemistry (Science)
- Major Program ERMAJ1376 Chemistry (Science)
- Minor Program ERMIN1376 Chemistry (Science)

Check out...

Curious about forensics? Learn how to analyze physical evidence — drugs and alcohol, gunshot residue, explosives and paint analysis — through FSC311H5. Interested in science education? Consider ER1398HS, Teaching Opportunities in Sciences.

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: Food scientist; Microbrewery technologist; Hazardous waste management technologist; Quality controller; Pulping and bleaching manager; Biochemistry technologist; Medical lab technologist; Water purification chemist; Government affairs specialist; Forensic laboratory analyst.

Workplaces: Cosmetics and fragrance production; Pulp and paper; Pharmaceutical; Government; Medical organizations; Food and beverage production; Plastic manufacturing; Scientific R&D.
**CHEMISTRY MAJOR** Program Plan

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**1ST YEAR**

**Enrol in courses CHM110H5, 112H5, and MAT134Y5:**

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

**Start strong and get informed with utmONE and LAUNCH through the Centre for Student Engagement (CSE). Join a RGASC Peer Facilitated Study Group.**

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**2ND YEAR**

**Enrol in courses CHM211H5, 231H5, 242H5, 243H5 and JCP221H5, MAT212H5/232H5.**

Consider applying for Research Opportunity Program (ROP) courses CHM299Y5 or CHM399Y5. Visit the EEU website for ROP Course Prerequisites. Attend the RGASC’s Program for Accessing Research Training (P.A.R.T.) to enhance your research skills.

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**3RD YEAR**

**Enrol in courses CHM311H5, 331H5, 341H5/345H5, 361H5, 394H5, 396H5, JCP321H5.**

Throughout your undergraduate degree:

- use the Degree Explorer to ensure you complete your degree and program requirements.
- use the Office of the Registrar and the CPS Academic Counsellor.

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**4TH OR FINAL YEAR**

**Enrol in courses CHM395H5, 397H5/399Y5/489Y5/ CPS400Y5/ JGB487Y5; Attain 1.5 400 level CHM/UCP courses, 1.0 credits from 300/400 level CHEM/UCP or ER1396H5 (with permission of the Department of Chemical and Physical Sciences).**

**What is Experiential Education?** It means learn by doing! Speak to the CPS Academic Counsellor about opportunities such as JGB487Y5 (Advanced Interdisciplinary Research Laboratory) and CHM489Y5 (Introduction to Research in Chemistry).

Log on to ACORN and request graduation.

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**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.

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**PLAN YOUR ACADEMICS**

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

**BUILD SKILLS**

**BUILD A NETWORK**

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

Attend the Get Experience Fair through the CC to learn about on- and off-campus opportunities.

Networking simply means talking to people and developing relationships with them. Start by joining the Erindale Chemical and Physical Sciences Society (ECPS).

Make sure to go to the ECPY’s Meet the Pros Night.

Visit the UTM Library Reference Desk.

Attend events held by the International Education Centre (IEC), whether you are an international or domestic student. Explore different cultures through food, music, and sport or through sight-seeing around the GTA.

Start with the International Education Week events and learn about the diversity, culture, and international opportunities on campus!

Embark on a UTM Abroad Global Impact Project through the IEC. Take advantage of this opportunity to travel with a faculty member and learn about a topic of interest in a unique location.

Interested in deepening your global perspective? Register for the Global Citizenship Certificate offered by the IEC.

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**BUILD A GLOBAL MINDSET**

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

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

Explore careers through the CC’s Extern Job Shadowing Program.

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

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**PLAN FOR YOUR FUTURE**

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

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*Revised on: 6/5/2018*
Skills developed in Chemistry

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:

Research: conduct journal research and utilize logical reasoning to interpret results/data derived from scientific experimentation.

Technical: experience with state-of-the-art laboratory technology and instruments; ability to use computer programs to manipulate and display data; and comply with quality control procedures while conducting experiments.

Quantitative: analyze data for trends and apply statistical packages to data to test for significance.

Communication: organize research ideas and information into comprehensive reports; and interact professionally with a multidisciplinary team of researchers, technicians, students and professors.

Get involved

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

- Erindale Chemical and Physical Sciences Society (ECPS)
- UTM Student Union (UTMSU)
- UTM Athletics Council (UTMAC)

For a listing of clubs on campus visit www.utm.utoronto.ca/clubs.

Services that support you

- Accessibility Services (AS)
- Career Centre (CC)
- Centre for Student Engagement (CSE)
- 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)

Department of Chemical & Physical Sciences

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905-828-5351; 905-828-3800 cpscounsellor.utm@utoronto.ca www.utm.utoronto.ca/cps

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. Your admission average is calculated using English plus your next best five courses. The Grade 12 prerequisites for Chemistry are Advanced Functions, Chemistry and Physics. The approximate average required for admission is mid- to high-70s. More information is available at utm.utoronto.ca/viewbook.

NOTE: During the application process, applicants will select the Chemical & Physical 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

Support is available to first-year chemistry students through tutorial classes, office hours, Facilitated Study Groups and a 24/7 system of Virtual Office Hours. In addition, all of our students have access to new, state-of-the-art teaching laboratories.

Upper-year students can become involved in cutting-edge research projects in our research labs. We recently launched the Centre for Medicinal Chemistry, an interdisciplinary centre for the development of new drugs. It will become a research hub of leading scientists dedicated to developing innovative approaches in the fight against cancer and other diseases.

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