**What is Physics & Astrophysics?**

Physics & Astrophysics is a Physical Science based on experiments, measurements and mathematical analysis with the purpose of finding quantitative physical laws for everything from the nanoworld of the microcosmos to the planets, solar systems and galaxies that occupy the macrocosmos. Physicists and astronomers study the ways in which various forms of matter and energy interact.

**Skills of Physics & Astrophysics Grads**

- Apply physical principles to problems and formulate solutions
- Integrating theoretical approaches
- Mathematical and numerical modelling
- Computer programming and computational modelling
- Team-based research and ability to work in multidisciplinary groups
- Apply and process new information quickly
- Design and execute experiments
- Write technical reports and project proposals relevant to given audience
- Communicate complex information and data through presentations and discussions
- Demonstrate ethical scientific behaviour
- Utilize qualitative and quantitative analysis and problem solving
- Assess the reliability of data and the significance of results

**What makes Physics & Astrophysics at UTSC unique?**

Studying Physics and Astrophysics at UTSC means that you will be part of a small cohort of students and receive individualized attention from faculty. UTSC specializes in the study of the Solar System and extrasolar planetary systems. Faculty use local and national supercomputers to run large-scale particle-based and fluid dynamics planetary simulations.

**Entry-Level Jobs for Bachelor Grads**

Common employment destinations include:
- Instrumentation Technologist in Mining Processing and Power Generation
- Junior Policy and Data Analyst in Government
- Quality Assurance Analyst in Healthcare Technology and Pharmaceuticals
- Junior Associate in Information Technology Service Providers
- Tester / Developer in Software Solutions
- Product Tester in Industrial and Electronics Manufacturing
- System Specialist in Data Management Services

**The Career Directory:** [www.canadastop100.com/tcd](http://www.canadastop100.com/tcd)

**Graduate & Professional Studies**

Popular further education opportunities include:
- Physics – Master of Science
- Computer Science – Master
- Software Development – Post-Graduate Certificate or Diploma
- Finance – Master, Professional Certification
- Engineering – Bachelor or Master
- Nuclear Medicine or Radiation Therapy – Degree or Diploma

**Use LinkedIn!**

UTSC Physics graduates are working in Research, Information Technology, and Engineering.

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

**Physics Grads from UTSC have gone on to:**
- Malatest & Associates (Survey Operations Manager)
- PwC (Senior Associate)
- IBM (Services Technical Sales Leader)
Examples of Fields that ‘Fit’ the Skills of Physics & Astrophysics Grads

- Healthcare Technology
- Private/Public Research and Development
- Education
- Banking and Finance
- Energy Production
- Manufacturing
- Software and Computer Systems
- Government (Municipal, Regional, Provincial, Federal)

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 on CLN in the 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!

   Environmental & Physical Sciences Student Association - www.myepsa.ca

   Canadian Association of Physicists - www.cap.ca

   Society of Energy Professionals - www.thesociety.ca

   Canadian Information Processing Society - www.cips.ca

   IEEE - www.ieee.org

   Association for Financial Professionals - www.afponline.org

   Canadian Association of Nuclear Medicine and Molecular Imaging - www.canm-acmn.ca

   Canadian Association of Medical Radiation Technologists - www.camrt.ca

   **Other associations and websites for finding networking opportunities and experience include:**

   PhysLink - www.physlink.com

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.