DISCOVER YOUR STORY IN AVIATION
From the first hot air balloons to modern fighter jets, we’ve come a long way in the field of flight and aerospace. In just over 100 years, we’ve moved from simple gliders to aircraft that can carry more than 850 passengers. This industry was born with innovation in its DNA.

Aviation continues to offer some of the most exciting professions of our time. Soaring through the skies and defying the laws of gravity is captivating – especially if you love adventure. From environmental innovation to technological advances, there’s no shortage of challenges for qualified pilots and professionals to tackle.

A university degree and the professional training to become a commercial pilot will give you the advantage you need – along with the skills and knowledge to fly with confidence.

Let’s explore your story in Aviation at Waterloo.

ACCESS 30+ AIRCRAFT
through Waterloo Wellington Flight Centre

200+ FLIGHT HOURS
gained by graduation
INDUSTRY INNOVATORS

According to industry projections, long-term demand for newly qualified aviation personnel remains strong, as 612,000 new pilots, 626,000 new maintenance technicians, and 886,000 new cabin crew members are needed to fly and maintain the global commercial fleet over the next 20 years.

The aviation industry is cyclical and defies the status quo each time around. Though COVID-19 has been an unprecedented challenge for aviation professionals around the world, our collective passion for travel and exploration will drive post-pandemic recovery.

PARTNERSHIPS FOR SUCCESS

We’re leaders in aviation education and the industry has taken notice. We’ve established multiple partnerships with airlines to create expedited pathways from graduation to airline pilot positions.

CANADA’S LARGEST university aviation program

MORE TO EXPLORE

Meet us online for more tips and stories:

- UofWaterloo
- University_Waterloo
Chart your course and take flight. Experience the world as a geographer and pilot, from the soil below to 30,000 feet in the air. You’ll explore landforms, identify weather patterns, and use cutting edge technology like drones and geographic information systems (GIS) from one of Canada’s top-ranked geography departments – all while completing the flight training needed to acquire your commercial pilot licence (CPL). You’ll graduate with your CPL enhanced with multi-engine and instrument ratings, and the skills needed to advocate for responsible industry practices through your knowledge of sustainable tourism and the environment.

**SAMPLE COURSES:**
- Earth from Space Using Remote Sensing
- Global Environmental Systems: Processes and Change
- Designing Effective Maps
- Hydroclimatology
- Geodesy and Surveying
- Geography of the Global Economy

+ Introduction to Aviation
- Human Factors in Aviation
- Aviation Safety
- RPAS (UAV) Requirements for Geomatics
Things are looking up. The science of flight is fascinating – and even more so when you can take courses that teach the foundations of physics, chemistry, biology and earth sciences. Learn from award-winning professors in the Faculty of Science while you pursue both your BSc degree and commercial pilot licence (CPL) with multi-engine and instrument ratings. Test your skills in labs that reinforce classroom learning and join one of the most active student societies on campus – SciSoc. Enjoy a career in the aviation industry while understanding the underlying principles of flight.

**SAMPLE COURSES:**
- Introductory Earth Sciences,
- Communication in the Sciences,
- Introductory Environmental Sciences,
- Physics, Mathematics,
- Designing Effective Maps,
- General Chemistry

**+**

- Introduction to Aviation,
- Human Factors in Aviation,
- Aviation Safety,
- RPAS (UAV) Requirements for Geomatics
Whether you choose Science and Aviation or Geography and Aviation, you’ll receive the same innovative aviation-industry and flight training and graduate with a deep understanding of the practice of aeronautics.

POSSIBLE CAREER FIELDS
(some may require further training)

- Commercial pilot
- Flight instructor
- Charter/corporate pilot
- Military pilot
- Flight dispatcher

Waterloo Wellington Flight Centre (WWFC) is your school for flight training. Located 20 minutes from the University of Waterloo at the Region of Waterloo International Airport, it’s one of Canada’s top flight schools. When you start your training, you’ll fly in single pilot, non-high-performance aeroplanes (i.e., Cessna, Diamond, or Piper Seminoles). When you finish your training, you’ll be eligible to fly commercial aircraft.

COMMUNITY CONNECTIONS
Meet students who share your passion. Join the UW Aviation Student Society for industry networking, mentorship opportunities, and social events.
Take your career sky-high. Gain the skills and expertise you need to excel in the growing aviation or aerospace industries. Earn a three- or four-year Bachelor of Environmental Studies degree from one of the world’s best geography departments, where you’ll learn how to use tools such as geographic information systems and remote sensing, interpret weather patterns, read multi-layer maps, understand the impact of tourism, and advocate for sustainable practices within the aviation industry.

Take advantage of the program’s flexibility and enrol in independent flight training. Or apply into the co-op program to graduate with a prestigious Waterloo degree and up to 20 months of paid work experience. The choice is yours.
NEW INSTITUTE, NEW INNOVATION

The Waterloo Institute for Sustainable Aeronautics (WISA) is the world’s leading hub for sustainable aviation and aerospace research, technology, and education. Building a sustainable future in air transport means finding innovative solutions within the environmental, economic, and social aspects of aviation, aerospace, and space research. Welcome aboard a new way of thinking about traditional aviation.

MORE TO EXPLORE

Meet us online for more tips and stories:

Instagram: wisa_uw
Facebook: wisa_uw
Twitter: wisa_uw
WISA SIM LAB

The WISA Sim Lab is home to an advanced flight simulator that supports researchers and students on campus. The simulator plays an important role in researching pilot health and psychology – with the added benefit of allowing students to participate in studies and get flight time without burning any fuel.

Most exciting, the simulator has technical specifications that help to mimic real world sensory stimuli, such as a high-definition visual system, electrical force tactile effects, weather impacts, turbulence, and aerodynamic auditory effects (like engine noise, touchdown and runway rumble, precipitation, malfunctions, and damage).
YOUR NEXT STEPS
(after application)

1. MEDICAL EXAM
   Submit your Transport Canada Medical Category 1 certification by an approved civil aviation medical examiner to WWFC no later than the end of August of your entry year. Students should confirm medical eligibility prior to accepting an offer of admission.
   [tc.canada.ca/en/aviation]

2. CONFIRM PREPAREDNESS
   Review the FAQ and financing sections of our website, so you’re well informed of the financial and time commitments of our program.
   [uwaterloo.ca/aviation]

3. ATTEND INFO SESSION
   Attend a post-secondary information session with Waterloo Wellington Flight Centre.
   [wwfc.ca]

4. ACCEPT OFFER
   Accept your offer by June 1, 2023.
   [ouac.on.ca]
Six grade 12 U or M courses, including the specific courses listed:

<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>REQUIRED COURSES</th>
<th>ADDITIONAL REQUIREMENTS</th>
<th>ADMISSIONS AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography and Aviation (regular only)</td>
<td>English (ENG4U) (minimum final grade of 70% is required)</td>
<td>Transport Canada Category 1 Medical Certification</td>
<td>Mid-80s</td>
</tr>
<tr>
<td></td>
<td>One Grade 12 U Mathematics course (minimum final grade of 70% is required)</td>
<td>Post-secondary Program Information Session</td>
<td></td>
</tr>
<tr>
<td>Science and Aviation (regular only)</td>
<td>Advanced Functions (minimum final grade of 70% is required)</td>
<td>Transport Canada Category 1 Medical Certification</td>
<td>Mid-80s</td>
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<tr>
<td></td>
<td>Calculus and Vectors (minimum final grade of 70% is required)</td>
<td>Post-secondary Program Information Session</td>
<td></td>
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<tr>
<td></td>
<td>English (ENG4U) (minimum final grade of 70% is required)</td>
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<tr>
<td></td>
<td>Any two of the following: Biology, Chemistry, Earth and Space Science, Mathematics of Data Management, Physics</td>
<td></td>
<td></td>
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<tr>
<td>Geography and Environmental Management (co-op or regular)</td>
<td>Any grade 12 U English (minimum final grade of 70% is required)</td>
<td>N/A</td>
<td>Low 80s</td>
</tr>
</tbody>
</table>

Data is subject to change at any time. Visit uwaterloo.ca/future-students for current requirements and tuition fees.

uwaterloo.ca/future/admissions

TUITION AND FEES

<table>
<thead>
<tr>
<th>PROGRAM(S)</th>
<th>APPROXIMATE TUITION FEES (PER YEAR)</th>
<th>APPROXIMATE FLIGHT TRAINING FEES (THREE-YEAR TOTAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography and Environmental Management, Aviation Specialization</td>
<td>&gt; $9,000 for two terms for Canadian citizens and permanent residents</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>&gt; $46,000 for two terms for international students</td>
<td></td>
</tr>
<tr>
<td>Science and Aviation Geography and Aviation</td>
<td>&gt; $8,000 for two terms for Canadian citizens and permanent residents</td>
<td>$80,000</td>
</tr>
<tr>
<td></td>
<td>&gt; $44,000 for two terms for international students</td>
<td></td>
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</tbody>
</table>

STILL UNSURE? FIND YOUR CAREER FIT.

Need some support determining your professional goals and career path? Check out “Aviation Fundamentals” – an online self-study course. Developed in collaboration with the University of Waterloo and the United Nations International Civil Aviation Organization (ICAO), this is your introductory guide to the exciting fields and opportunities in the aviation industry.

uwaterloo.ca/aviation/icao
ACKNOWLEDGEMENT OF TRADITIONAL TERRITORY

The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg, and Haudenosaunee peoples. Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River.

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Waterloo is committed to acting on the climate emergency and is working toward carbon neutrality and zero waste in our own practices. The paper this publication is printed on contains 100% post-consumer fiber, is manufactured using renewable energy and is Forest Stewardship Council® (FSC®) certified.