Professional Remotely Piloted Aircraft Systems Certificate

SCHOOL OF TRANSPORTATION

Overview

Launch a cutting-edge career with our Professional Remotely Piloted Aircraft Systems (RPAS) program, designed to equip you with the knowledge and skills to operate drones across various commercial sectors.

As industries such as agriculture, forestry, oil and gas, energy, construction, cinematography and emergency response rapidly integrate drone technology, the need for qualified pilots continues to increase.

This program offers a comprehensive education that includes the construction, maintenance and operation of drones, familiarization with Transport Canada's stringent aviation guidelines, and hands-on experience with geomatics data. You'll also learn to conduct inspections and mapping for environmental, agricultural and industrial applications and become familiar with the key elements of Beyond Visual Line of Sight (BVLOS) operations and their business applications.

As a student, you will be trained to:

- create basic GIS-ready data outputs from RPAS projects
- coordinate RPAS flight operations with various RPAS pilots and projects
- lead RPAS teams in high-risk, complex operations
- carry out complex image analysis and create high-level geospatial outputs for RPAS projects
- develop policy for RPAS operation at the company or federal level
- ensure company compliance and site audits
- contribute to your company's business plan and design.

You will develop the technical skills necessary to navigate the technology of unmanned aerial vehicles (UAV) and the strategic insight to enhance company value and comply with regulatory standards.

Once you graduate, you'll be prepared to become a drone pilot and take on pivotal roles within your organization, leveraging RPAS technology to meet and exceed business objectives and client needs in many rapidly evolving fields.

Traits, skills and aptitudes

Following Transport Canada's requirements, remotely piloted aircraft system (RPAS) pilots must:

- not suffer from any condition which would render them unfit to perform their duties
- have a visual acuity of 20/20 (the use of corrective lenses to achieve this is acceptable)
- have sufficient English language ability to be understood by local air traffic control when using VHF radio
- provide evidence of good health
- be a Canadian citizen or a permanent resident.

To become a drone pilot and operate RPAS, you'll also need:

- a strong interest in aviation
- the ability to think in 3D
- strong concentration skills
- the ability to remain calm under pressure
- IT and math skills
- the ability to make quick decisions in emergencies, give accurate instructions and accept considerable responsibility.

Accreditations, designations and certifications

Graduates will be certified in:

- Transport Canada Advanced Small Remotely Piloted Aircraft System (RPAS)
- Visual Line-of-Site (VLOS) pilot

- Restricted Operator certificate with Aeronautical qualification (ROC-A).

Credentials

After successfully completing this program, you'll receive a SAIT Professional Remotely Piloted Aircraft Systems certificate.

Admission requirements

Applicants educated in Canada

Applicants must demonstrate English language proficiency and completion of the following courses or equivalents:

- a minimum of 50% in English Language Arts 30-1 or English Language Arts 30-2, and
- a minimum of 50% in Math 30-1 or Math 30-2, and
- a minimum of 50% in one Grade 12 Science course.

SAIT accepts high school course equivalents for admission for applicants educated outside of Alberta.

Applicants educated outside of Canada

All applicants who were educated outside of Canada must demonstrate English language proficiency and provide proof they meet the program admission requirements with an international document assessment. Find accepted educational documents and assessment options.

SAIT may also accept courses completed at certain international post-secondary institutions.

Costs

2026/27 tuition and fees

The following estimated costs are effective as of July 1, 2026.

The estimated total cost of tuition and fees is based on completing the program in one semester of study. Following a modified schedule will impact the fees you pay per semester and may alter final costs.

Domestic Students

Year	Number of semesters	Tuition fees	Additional fees	Total per year
1	1	$10,386	$1,083.25	$11,469.25
			Total cost:	**$11,469.25**

The estimated total cost of tuition and fees for domestic students is based on the recommended course load per year.

International Students

The program total is based on the estimated amount you will pay if you enter this program during the 2026/27 academic year. The program total amount listed on your letter of admission may appear higher. This amount is your maximum tuition guarantee for the program. SAIT will not exceed this maximum, regardless of changes in tuition and fees between academic years.

Year	Number of semesters	Tuition fees	Additional fees	Total per year
1	1	$15,696	$1,024.30	$16,396.30
			Total cost:	**$16,396.30**

The estimated total cost of tuition and fees for international students is based on the recommended course load per year.

Year	Number of semesters	Tuition fees	Additional fees	Total per year

Books and Supplies

Books are approximately $50 - $150.

This is a bring-your-own-device program with a standard computer hardware and software requirement. See the specific requirements on our computers and laptops page.

Find your booklist on the SAIT Bookstore's website. The booklist will be available closer to the program start date. Can't find your program or course? The bookstore didn't receive a textbook list. Contact your program directly to determine if they're still refining course details or if you're in luck; no textbook purchase is required this term.

Required equipment/tools

You'll require a drone build kit, which can be purchased from SAIT for approximately $1,000 - $1,200. This kit will be used to build and understand how all the components of a basic drone work.

A tool list and timeline for purchasing the required items will be provided at orientation.

Required personal protective equipment (PPE)

You'll be required to use personal protective equipment (PPE) when working in the shop and performing flight duties. Some of this equipment can be purchased from SAIT and others will need to be sourced elsewhere. The cost for PPE is between $250 to $400.

A PPE list and timeline for purchasing the required items will be provided at orientation.