TE KUNENGA KI PŪREHUROA | MASSEY UNIVERSITY
UNIVERSITY OF NEW ZEALAND

# THAT MOMENT AVIATION IMPACTS THE WORLD, AOTEAROA AND YOU


# Rankings & Accreditation

**MASSEY'S SCHOOL OF AVIATION IS UNIQUE IN NEW ZEALAND, AND WAS ESTABLISHED IN 1987 TO MEET THE AVIATION INDUSTRY'S NEEDS FOR GRADUATES WITH A WIDE INDUSTRY PERSPECTIVE.**

### QS (QUACQUARELLI SYMONDS) WORLD UNIVERSITY RANKINGS

Business Management Studies Massey University is ranked by QS (Quacquarelli Symonds) as one of the top 400 universities for Business and Management.

### SHANGHAIRANKING

Business Administration Massey University is ranked in the top 300 universities globally and 2nd equal in New Zealand for Business Administration by ShanghaiRanking.

### ASSOCIATION TO ADVANCE COLLEGIATE SCHOOLS OF BUSINESS (AACSB)

Massey Business School is rated in the top 5% of global business colleges by AACSB International.

### NEW ZEALAND CIVIL AVIATION AUTHORITY (CAA)

The Bachelor of Aviation is the only flight training programme that has Equivalence Approval from the New Zealand Civil Aviation Authority.

### AIR NEW ZEALAND ACADEMY OF LEARNING

Massey University School of Aviation is the only Air New Zealand Preferred Flight Training Organisation (PFTO) that offers an integrated aviation degree, and one of only four PFTOs selected by the academy to provide airline-informed ab initio flight training.

### ROYAL AERONAUTICAL SOCIETY ACCREDITATION

The Royal Aeronautical Society accredits all aviation qualifications at Massey University, certifying that they meet the RAeS's international professional standards.

### SINGAPORE AVIATION ACADEMY

Massey's School of Aviation offers the Bachelor of Aviation Management and Master of Aviation via distance learning to international students through a partnership with Singapore Aviation Academy. The academy is an ICAO TRAINAIR PLUS Full Member, ICAO endorsed Government Safety Inspector Training Centre and ICAO Aviation Security Training Centre.

### TRAINING ARTICULATION AGREEMENTS

The school has articulation arrangements with the following institutions and organisations whose graduates will be eligible to be awarded credits into the Bachelor of Aviation Management.

- Airways New Zealand
- New Zealand Defence Force and Royal New Zealand Air Force
- Singapore Polytechnics (Republic Polytechnic, Nanyang Polytechnic, Singapore Polytechnic and Temasek Polytechnic)
- Sri Lanka Airport and Aviation Academy

# Aviation

## DEGREES



## OTHER QUALIFICATIONS



## OTHER COURSES



**UPDATED JANUARY 2025**


MTR
MTS


Diamond

Bachelor's degree
NZQF level 7 | Undergraduate study
3 years full-time (480 credits)

# Bachelor of Aviation

## BAv

**Become part of a new generation of pilots, and learn how to fly in Massey's state-of-the-art training fleet, while gaining a qualification that sets you up for the aviation industry of the future.**

Massey's Bachelor Of Aviation (Air Transport Pilot) is a university undergraduate qualification intended for career pilots. It will not just train you to be a competent pilot, but to become a 'flight deck manager' with a university education, and an in-depth understanding of the aviation industry.

### WHY ARE WE DIFFERENT?

We lead the field in flight training in New Zealand.

**The only professional aviation degree in New Zealand**
integrating the Professional Pilot licensing requirements of the Civil Aviation Authority of New Zealand. Graduates are issued with a Commercial Pilot's Licence and a Multi-Engine Instrument Rating.

**Equivalence Approval from the NZCAA**
BAv students' examination results are accepted in lieu of CAA examinations, and flight examiners from the School are approved for conducting Flight Examinations for issue of licences.

**State of the art technology**
Including a full fleet of technologically advanced aircraft fitted with Garmin 1000 cockpit displays. Flight Simulation Training devices include DA 40 and DA 42 simulators.

**Real-world problem solving**
Scenario-based flight training methodology builds the 'soft skills' required to produce professional aviators (decision making, communication, judgement, conflict resolution, workload management, threat and error, management, 'single pilot resource management' (SRM).

**Required Navigation Performance (RNP)**
The School of Aviation became the first flight-training organisation in New Zealand to receive approval from the Civil Aviation Authority of New Zealand to carry out Required Navigation Performance (RNP) operations on its 12 Diamond DA 40 single-engine aircraft.

**Electronic Flight Bags (EFBs)**
Massey reflects airline practices, including the move to a mostly digital (paperless) cockpit via the use of EFBs. As a new Bachelor of Aviation student pilot you will be issued with an Apple iPad to be used as your EFB for the duration of your flight training practicum period.

**Industry alliances**
In recognition of the quality of training delivered in the BAv qualification, Air NZ selected the School of Aviation as an 'Air NZ Preferred Flight Training Organisation'.

**Purpose-built aviation centre**
The state-of-the-art 2200 square metre Massey University Aviation Centre was officially opened on 18 October 2019. Designed to house both Bachelor of Aviation students and Aviation Management students under one roof, the facility has become a nucleus for the development and delivery of research-led aviation education and training.

### MAJORS INCLUDE

– Air Transport Pilot

### CAREERS

A career as a pilot is exciting and highly sought-after, offering global opportunity.

The Bachelor of Aviation (Air Transport Pilot) opens up opportunities to become airline pilots or any other potential career within the aviation industry.

Many graduates work as flight instructors in New Zealand or Australia, enabling them to build on their instructional techniques expertise which is a valuable skill for those who eventually decide to take up a role as an Airline Training Captain.

You may wish to progress to key management or training positions for an airline or with international bodies such as the International Air Transport Association (IATA) or the International Civil Aviation Organisation (ICAO). Postgraduate study in aviation would be worth considering if you intend to follow this path.

### GRADUATE PATHWAYS

– Massey University Assistant Flight Instructor Scheme (by selection).
– Massey Flight Instructor graduates have direct pathways to roles with other NZ domestic flight training organisations and international training schools in Australia (e.g., Basair and Soar Aviation) as per demand from these organisations.

AIR NEW ZEALAND

PFTO | PREFERRED FLIGHT TRAINING ORGANISATION

FIND OUT HOW AND WHEN TO APPLY TO STUDY

APPLY FOR A CAANZ CLASS ONE MEDICAL CERTIFICATE

# Entry requirements

**There are two intakes per year into the Bachelor of Aviation qualification**

**A** Semester One (January)

**B** Semester Two (July)

All applicants wishing to enrol in the Bachelor of Aviation are required to meet the undergraduate admission requirements.

**APPLICATION FOR THE BAV**
All academic entry requirements are detailed on the web page.

## STAGE ONE

**1 ADAPT TEST**

All prospective candidates must complete the 'ADAPT' assessment.

Candidates will receive a code to complete the ADAPT assessment three months prior to their Stage Two assessments. Payment for the assessment must be made in advance through the Massey University student portal.

You are required to meet a satisfactory standard in this test in order to be invited to the next stage of the selection process. Required results to progress are:

- Average,
- Above Average, or
- Good.

Candidates submitting a 'Below Average' result may attempt the ADAPT test assessment. Those submitting a 'Poor' result will not proceed to stage two.

Before you will be considered by selection board in stage two, you will have:

**2 TRIAL FLIGHT**

You are required to have taken at least one trial (experience) flight before your selection board appointment is confirmed. This is to give you an understanding of what it is like to fly in a small aircraft. Trial flight experiences can be flexible (e.g., taken at any flight training organisation), with pilot friends, or at the annual Massey University Aviation Open Day.

**3 MEDICAL AND VISION ASSESSMENTS**

Pre-book your medical appointments with a CAANZ approved medical examiner and optometrist. Provide evidence of either a current CAANZ Class One Medical Certificate, or the date of the medical appointment for confirmation of stage two.

# STAGE TWO

### 4 SELECTION BOARD

Your application will be assessed, and you may then be invited to the 'selection board'. This is usually held in Palmerston North in person on the 7th, 8th and 9th of October and 4 December 2025 (TBC) at the Massey University Aviation Centre. Semester two selection will be scheduled for a date TBC in late May / early June 2026. An online selection may be scheduled for international students. This involves:

### A PILOT APTITUDE ASSESSMENT TESTS

Including a flight simulator aptitude test, psychometric and physics tests.
2 hours.

### B A SELECTION INTERVIEW

Taking part in a panel interview.
45 minutes.

### C TWO WRITING TASKS

**English language tests**
Short essay and vocabulary assessment.
30 minutes.

**Maths assessment**
Multi-choice / short answer assessment.
30 minutes.

Once you are successful in gaining a place in the Bachelor of Aviation qualification you will also need to complete further tasks. These include:

### 5 'FIT AND PROPER PERSON' DECLARATION

Completing a declaration that you know of no barrier to being issued a 'Fit and Proper Person' clearance by the CAANZ.

### 6 CAANZ CLASS ONE MEDICAL CERTIFICATE

You must obtain a CAANZ Class One Medical Certificate before being confirmed into the Bachelor of Aviation. Allow enough time to complete before your degree commences. See stage one, step 3. You must maintain a CAANZ Class One Medical Certificate for the duration of the degree.

### IN PERSON SELECTION

Domestic candidates are required to attend their Selection Board in person at:

Massey University,
Aviation Centre
47 Airport Drive,
Palmerston North,
New Zealand.

### ONLINE SELECTION

In the interest of equity, students with a valid inability to visit NZ to undergo selection board testing may be offered an online selection board instead. This will be assessed on an individual basis.

## OTHER REQUIREMENTS

**English language communication**
As per the CAA Advisory Circular AC61-2 Rev 4 "Pilot Licences and Ratings—Student Pilots" 14 February 2012, Rule 61.105(a)(3) requires a person to have sufficient ability in reading, speaking, understanding and communicating in the English language to enable them to adequately carry out the responsibilities of a pilot-in-command of an aircraft before a flight instructor can authorise the person to fly solo as a student pilot. Students must have gained the literacy credits at NCEA Level 2 required for University Entrance.

In addition Massey University requires that prospective domestic students successfully attain a minimum of 14 credits (or equivalent) in a language-rich subject such as (but not limited to) English, history, art history, geography, biology. This is to demonstrate evidence of a student's ability to write an extended formal essay.

International students must gain an IELTS score of 6.5 with no band lower than 6.0 – or pass an alternative approved English language test to an equivalent standard.

**Fit and proper person**
In simple terms, anyone holding or applying for an aviation document, or anyone who has control over the exercise of the privileges of an aviation document, must satisfy the Director of Civil Aviation that they are a fit and proper person to do so. This is a requirement of the Civil Aviation Act 1990, Section 9. An aviation document includes, for example, a licence, a rating, or an air operator certificate. This process will be undertaken in your second semester. Your instructor will advise you as to when to commence your application.

You will be required to apply for an up-to-date Criminal Convictions Report showing:

- A conviction-free period of at least three years prior to the date on which training will commence; and
- No more than one conviction for drink driving
- An up-to-date Demerit Points and Suspension History Report (Traffic Offence History) showing a maximum of 65 demerit points* (or equivalent for international students) within the three years immediately prior to the date on which training will commence

* Equivalent to two minor speeding offences (20 demerit points each) and a restricted driver carrying an unauthorised passenger (25 demerit points)

**Note:** A conviction for drink driving or drug offences (or other serious offence or serial offending) while you are on the course breaches the Fit and Proper Person criteria, and your training may be terminated.

**Enrolment for the first time in January 2026**
Students enrolling in the degree for the first time in January 2026 will be enrolled in the compulsory courses as listed on page 7. The qualification structure of 480 credits delivered in three calendar years will remain unchanged. Please contact Massey for more information.

**Note:** If you are interested in applying for Semester 2, 2026 (July 2026) please contact Massey University on 0800 627739 well before 01 May 2026 for information on courses in which to enrol and selection board dates etc.

**Assistant Instructor scheme**

- Bachelor of Aviation Air Transport Pilot
- FIC Graduates: Performance based selection and interview.
- Employment: fixed-term position
- Upgrade to B Cat

# Dates and Study plan

| | JANUARY START | | JULY START | |
|---|---|---|---|---|
| | Domestic Students | International Students | Domestic Students | International Students |
| **Apply Online** | Due 1 November | Due 1 October | Due 1 May | Due 1 April |
| **Selection Board** | Early October (and December if required) | October | Late May / early June | Early June |
| **NZCAA Class 1 Medical Certificate** | Due by 15 December | | Due start of July | |
| **University Entrance** | NCEA results published early January. ICE and IB results released in January. | | Evidence of UE status must be submitted no later than 30 June. | |
| **Orientation** | TBC in January | | Early July | |

## FIRST YEAR STUDY PLAN

### JANUARY START

**Semester One 2025**

| | |
|---|---|
| 190.104 | Principles of Navigation |
| 190.107 | Human Performance |
| 190.112 | Introduction to Flying |
| 190.113 | Aviation Meteorology 1 |
| 190.114 | Aircraft Systems 1 |
| 190.116 | Introduction to Management in Aviation |

**Semester Two 2025**

| | |
|---|---|
| 190.120 | Aeronautical Legislation |
| 190.123 | Aircraft Systems 2 |
| 190.124 | Aircraft Performance |
| 190.154 | Principles of Navigation |
| 190.164 | Aeroscience |
| 190.220 | Managing Airline Systems |

### JULY START

**Semester Two 2025**

| | |
|---|---|
| 190.104 | Principles of Navigation |
| 190.107 | Human Performance |
| 190.112 | Introduction to Flying |
| 190.113 | Aviation Meteorology 1 |
| 190.114 | Aircraft Systems 1 |
| 190.164 | Aeroscience |

**Semester One 2026**

| | |
|---|---|
| 190.116 | Introduction to Management in Aviation |
| 190.120 | Aeronautical Legislation |
| 190.121 | Aviation Meteorology |
| 190.123 | Aircraft Systems |
| 190.124 | Aircraft Performance |
| 190.154 | Principles of Navigation |

## YEARS 1 AND 2

### Parts 1–4

Courses include those that are designed to meet the required competencies to achieve the Commercial Pilot Licence, multi-engine instrument rating and Airline Transport Pilot Licence subject theory credits (i.e. integrated courses), plus Air Transport Pilot Subject Courses (30 credits) and Aviation Management Subject Courses (30 credits).

**100 Level**

| | |
|---|---|
| 190.104 | Principles of Navigation I |
| 190.107 | Human Performance |
| 190.112 | Introduction to Flying |
| 190.113 | Aviation Meteorology 1 |
| 190.114 | Aircraft Systems 1 |
| 190.116 | Introduction to Management in Aviation |
| 190.120 | Aeronautical Legislation |
| 190.121 | Aviation Meteorology 2 |
| 190.123 | Aircraft Systems 2 |
| 190.124 | Aircraft Performance |
| 190.154 | Principles of Navigation II |
| 190.164 | Aeroscience |

**200 Level**

| | |
|---|---|
| 190.201 | Aircraft Systems 3 |
| 190.203 | Air Traffic Control /Aviation Law |
| 190.204 | Flight Planning and Advanced Navigation (Part 1) |
| 190.205 | Crew Resource Management |
| 190.206 | Aerodynamics 1 |
| 190.220 | Managing Airline Systems |
| 190.221 | Climatology |
| 190.237 | Heavy Aircraft Performance |
| 190.254 | Flight Planning and Advanced Navigation (Part 2) |
| 190.288 | Advanced Aircraft Handling |

**300 Level**

| | |
|---|---|
| 190.351 | Aircraft Systems 4 |
| 190.356 | Aerodynamics 2 |

## YEAR 3 OPTIONS

### 1 Flight Instruction Course

By selection only. All courses are compulsory. Candidates completing the Flight Instruction Option must complete the necessary competencies to achieve a CAA NZ 'C' Category Flight Instructor Rating, and pass the following integrated courses.

**200 Level**

| | |
|---|---|
| 190.282 | Introduction to Flight Instruction |
| 190.285 | Aerobatic Aircraft Handling |
| 190.288 | Advanced Aircraft Handling |

**300 Level**

| | |
|---|---|
| 190.301 | Flight Instructor Human Factors |
| 190.315 | Flight Instruction Fundamentals 1 |
| 190.335 | Flight Instruction |

OR

### 2 Aviation Business Management

At least 60 credits including 190.288 (Advanced Aircraft Handling) must be selected from the 190 prefix (Aviation) and up to 60 credits may be selected from the following prefixes

**Selected courses**

| | |
|---|---|
| 110._ _ _ | Accountancy |
| 114._ _ _ | Human Resource Management |
| 115._ _ _ | Business |
| 125._ _ _ | Finance |
| 152._ _ _ | Management |
| 153._ _ _ | Dispute Resolution |
| 155._ _ _ | Business Law |
| 156._ _ _ | Marketing |
| 157._ _ _ | Information Systems |
| 178._ _ _ | Economics |
| 219._ _ _ | Business Communication |

**Note:** At least 30 credits must be at 300 level.

Bachelor's degree
NZQF level 7 | Undergraduate study
3 years full-time (360 credits)

# Bachelor of Aviation Management

## BAvMan

**We focus on human factors and aviation management competencies.**

**This qualification is aimed at those candidates entering the aviation industry or for those already employed in aviation (with or without a professional licence) but with no previous tertiary qualifications.**

**The BAvMan evolved from the aviation management major in the Bachelor of Aviation and was first introduced in 2002.**

### QUALIFICATION OVERVIEW

A specialised aviation qualification, preparing you for a management role. If you're already employed in the industry this qualification is a great way to qualify yourself for career advancement. Some professional aviation qualifications may be eligible for cross-credit into the degree. The Massey school of Aviation also has relationships with the Singapore Aviation Academy and the Sri Lanka Airport and Aviation Academy.

### STRUCTURE

Candidates for the Degree of Bachelor of Aviation Management follow a flexible programme of study, which consists of courses totalling at least 360 credits, comprising:

- not more than 135 credits at 100 level;
- at least 75 credits at 300 level,
- at least 270 credits from Schedule A or B,
- all compulsory courses in the Schedule to the Degree,
- up to 90 credits from the schedules of other undergraduate degrees.

### Requirements

Schedule A

**Compulsory Courses**
150 credits

| | | |
|---|---|---|
| 190.109 | Aviation Studies | 15 credits |
| 190.115 | Introduction to Aeronautics | 15 credits |
| 190.116 | Introduction to Management in Aviation | 15 credits |
| 190.117 | Introduction to Human Factors | 15 credits |
| 190.216 | Aviation Human Factors | 15 credits |
| 190.220 | Managing Aviation Systems | 15 credits |
| 190.224 | Environmental Impacts of Aviation | 15 credits |
| 190.225 | Introduction to Research Methods in Aviation | 15 credits |
| 190.327 | Managing Cultures in Aviation | 15 credits |
| 190.340 | Contemporary Issues in Aviation Security | 15 credits |

Schedule B

**Aviation Management Courses**
Select 120 credits

| | | |
|---|---|---|
| 190.210 | Aviation Safety Management | 15 credits |
| 190.211 | Aviation Strategic Management | 15 credits |
| 190.222 | Basic Air Safety Investigation | 15 credits |
| 190.240 | Air Power | 15 credits |
| 190.299 | Aviation Special Topic | 15 credits |
| 190.306 | Airline Strategic Management | 15 credits |
| 190.307 | Airport Planning | 15 credits |
| 190.308 | Airport Operational Management | 15 credits |
| 190.309 | Design of Airways and Air Traffic Systems | 15 credits |
| 190.313 | Advanced Aviation Human Factors | 15 credits |
| 190.314 | Legal Issues in Aviation | 15 credits |
| 190.318 | Air Transport Economics | 15 credits |
| 190.328 | Aviation Management Practicum | 15 credits |
| 190.398 | Aviation Internship Project | 15 credits |
| 190.399 | Special Topic | 15 credits |

* Not all courses are offered every year

**Note:** This is a guide only, for comprehensive up-to-date information on each course including offerings, requirements and restrictions please scan the above QR code.

## INTERNSHIPS

Explore internship opportunities in Aviation Management and get insight into one of the world's most dynamic and exciting industries, and maximise your potential with leading NZ aviation organisations.

- Air Chathams
- Airways International
- Aviation Security Service
- Fieldair Engineering Ltd
- Massey University School of Aviation
- MPI (Biosecurity)
- Oceania Aviation
- Palmerston North Airport Ltd
- PHI-International
- TAIC
- Tasman Cargo
- Wellington International Airport

## AVIATION MANAGEMENT PRACTICUM / AVIATION SPECIAL TOPIC

During your final year, BAvMan students enrolled in these 'internship' courses have the opportunity to engage in real-world projects under supervision for aviation related organisations in New Zealand or internationally. The School of Aviation strongly encourages students to consider integrating real world experience into the BAvMan degree wherever possible. Students will receive credit for successfully working in an approved aviation organisation for a specified project and/or duration, and completing suitable work reports. This opportunity lets BAvMan students apply theories learned in class to a variety of aviation scenarios.

## DELIVERY

Most courses for the Bachelor of Aviation Management are available internally at the Manawatū campus or by distance. International students may enrol for distance study via the Singapore Aviation Academy in conjunction with Massey.

### Suggestions for your first year

**Semester One**
February to June

| | |
|---|---|
| 190.116 | Introduction to Management in Aviation |
| 190.117 | Introduction to Human Factors |
| 100-level | Elective course (Business or other) X2 |

**Semester Two**
July to November

| **Option 1**<br>Four core courses | **Option 2**<br>Any **two** of the following core courses |
|---|---|
| 190.109 | 190.109 |
| 190.115 | 190.115 |
| 190.216 | 190.216 |
| 190.220 | 190.220 |
| | **Plus** A BAvMan elective course (e.g. 190.210 or 190.240) |
| | **Plus** A non-Aviation, 200-level elective course |

### Overseas exchange

Gaining international experience during your study will strengthen your CV and benefit you throughout your career. Businesses and companies increasingly look to employ applicants who demonstrate a global perspective to work with their culturally diverse employees and overseas clients.

Studying overseas on exchange for a semester as part of your degree can propel you along your path toward an exciting career in the aviation industry. Courses successfully completed during the exchange period are credited back to your degree. You will pay the usual tuition fees for 60 credits for your studies at the host university. Tuition fees can continue to be paid to Massey by StudyLink if you qualify for StudyLink assistance. We encourage our students to consider applying for an international student exchange opportunity to increase their understanding of the exciting and dynamic global aviation industry.

Previous exchange students have leveraged their experiences as exchange students at universities such as Embry Riddle Aeronautical University, (USA), European Business School (Germany) and in the UK to secure exciting roles upon graduation.

Diamond
AIRCRAFT

Master's degree
NZQF level 9 | Postgraduate study
18 months full-time | Up to 5 years part-time available

# Master of Aviation

## MAv

**Massey University's Master of Aviation is a 180-credit Master's qualification and offers a rigorous programme of learning yet can be achieved in three semesters (one-and-a-half years). Students should have achieved a B- grade Average in the highest level courses in their undergraduate degree.**

**You may choose from two pathways: research or professional practice. The Master of Aviation may be studied by distance learning.**

### Turn your passion into a career

Massey University is the only place in New Zealand where you can turn your passion for aviation into a tertiary qualification. We are an internationally-recognised pilot training facility, but we also give you a broad knowledge of the global aviation industry. You will learn communication, management and administrative skills that will broaden out the range of careers open to you in the aviation industry.

### Research-led learning

Massey teaching is research-led and our academics are internationally- ranked and among the best in the world. Our teaching staff are widely published and are in demand as keynote speakers on topical global issues. International visitors regularly seek out visits to our facilities to learn more about what we do.

### World-leading lecturers and supervisors

We work to help you succeed. Massey University offers smaller classes and more personalised learning than many other tertiary institutions, giving you greater access to lecturers and the help you need to succeed and thrive during your master's study.

Massey's aviation staff are internationally-renowned for their research and teaching and learning methods. You will be working with internationally-recognised specialists.

## RESEARCH PATHWAY

If you choose this pathway your study will include at least 60 credits of taught courses including a compulsory Research Methods course. Part Two will incorporate a minimum of 60 credits of research.

### Part One

At least 60 credits

**Compulsory courses**

| | | |
|---|---|---|
| 190.704 | Research Methods in Aviation | 30 credits |

**Subject courses**

| | | |
|---|---|---|
| 190.701 | Human Factors for Professional Aviation | 30 credits |
| 190.703 | Management in Aviation Systems | 30 credits |
| 190.720 | Aviation Strategic Management | 30 credits |
| 190.721 | Design and Management of Airports | 30 credits |
| 190.790 | Special Topic | 30 credits |

### Part Two

At least 60 credits

**Courses**

| | | |
|---|---|---|
| 190.890 | Thesis (Part 1) | 45 credits |
| 190.891 | Thesis (Part 2) (Prerequisite 190.890) | 45 credits |
| 190.892 | Thesis (Part 1) | 60 credits |
| 190.893 | Thesis (Part 2) (Prerequisite 190.892) | 60 credits |
| 190.895 | Research Report | 60 credits |
| 190.898 | Thesis | 90 credits |
| 190.899 | Thesis | 120 credits |

## PROFESSIONAL PATHWAY

Those wanting a more practice-based qualification which reflects their industry experience should enrol in the Professional Practice option.

This option includes two compulsory aviation management courses, elective aviation courses and culminates in a 60-credit 'Professional Practice in Aviation' course. Students who are already aviation professionals may wish to draw on their current aviation role for the purpose of a case study.

### Part One

120 credits

**Compulsory courses**
60 Credits

| | | |
|---|---|---|
| 190.703 | Management in Aviation Systems | 30 credits |
| 190.720 | Aviation Strategic Management | 30 credits |

**Subject courses**
60 Credits

| | | |
|---|---|---|
| 190.701 | Human Factors for Professional Aviation | 30 credits |
| 190.721 | Design and Management of Airports | 30 credits |
| 190.790 | Special Topic (Permission HoS) | 30 credits |
| 190.791 | Special Topic (Permission Hos) | 30 credits |

### Part Two

60 credits

**Course**

| | | |
|---|---|---|
| 190.894 | Professional Practice in Aviation | 60 credits |

**LEARN ABOUT PHDs AND PROFESSIONAL DOCTORATES**

Discover how to apply and find a supervisor, and how we'll support you to succeed.

For information on applications, requirements, and visas for International students

Doctor of Philosophy (PhD)
NZQF level 10 | Postgraduate study
3 years full-time | Up to 6 years part-time available

# Doctor of Philosophy (Aviation) PhD

**The ultimate achievement in aviation at tertiary level is the Doctor of Philosophy – Aviation.**

**The Doctor of Philosophy (PhD) is a prestigious research qualification which is essential for a career in any research institution or university.**

The School of Aviation is active in research in several areas, including flight training devices, transference of learning, risk taking, accident legislation, call-sign confusion, crew resource management, and the effect of sleep deprivation. The School's research outcomes contribute to enhancing safety and efficiency, and improving the body of aviation knowledge in this dynamic industry.

The School also has an active programme of postgraduate research, with a number of students currently enrolled. Postgraduate students are encouraged to disseminate their work by publishing it in relevant peer-reviewed journals or by presenting it at conferences.

University scholarships may also be available for students wishing to undertake research at postgraduate level.

## ENTRY REQUIREMENTS

The doctoral programme is open to academically able students who have achieved First Class Honours or Distinction or Second Class Honours (Division I) in a Master's or Bachelor's (Honours) qualification. A PhD is completed by thesis and is expected to take three years of full-time study or up to six years of part-time study.

Your initial research proposal needs to include sufficient information for your prospective supervisor to be able to assess your current knowledge around your research topic. It will also be used by the School of Aviation to gauge whether there is a current staff member within the School who is able to supervise your research. Our supervisors are active and well known in their fields of expertise. When you use the expertise search, use filters to narrow your search.

Students are enrolled provisionally in the first year of PhD study, during which time your research proposal is developed. You are then confirmed into the doctoral degree.

## ENROLLING IN THE DOCTORAL PROGRAMME

You cannot enrol directly into a doctoral programme – you need to apply to the Doctoral Research Committee for admission.

If you're a New Zealand citizen or hold New Zealand permanent residency, you can download a DRC 2 Application Form for Provisional Registration as a PhD candidate, which can be found on the Graduate Research School (GRS) website.

Graduate diploma
NZQF level 7 | Graduate study
1 years full-time (120 credits) | Part-time available

# Graduate Diploma in Aviation
## GDipAv

**The Graduate Diploma in Aviation (GDipAv) is for those already working in the aviation industry who want to expand their knowledge in areas that may enhance their industry experience and opportunities. It has been developed from the Graduate Diploma in Business Studies.**

In the GDipAv (Aviation Studies) option, two compulsory courses in aviation management systems and human factors provide the core, along with six elective courses – building a solid aviation qualification.

The GDipAv (Flight Instruction) option includes five integrated compulsory courses and two courses taken from the schedule to the Bachelor of Aviation Management degree.

### ENTRY REQUIREMENTS

To qualify for entry into this qualification you need to hold a relevant undergraduate degree or be able to demonstrate relevant practical, professional or scholarly experience equivalent to that of a graduate. You'll need to satisfy the School of Aviation that you have the background and experience to follow the programme with a reasonable chance of success.

**Note:** Candidates are deemed to have met the prerequisite requirements for the 200-level courses listed in the following schedule when they've been admitted to the qualification.

### STRUCTURE

Students enrolling in this qualification must successfully complete 75 credits at 300 level. You will need to follow an approved course of study of 120 credits in one of the following endorsements as listed in the schedule.

### Aviation Studies

| **Compulsory courses** | |
|---|---|
| 190.216 | Aviation Human Factors |
| 190.220 | Managing Aviation Systems |
| **Plus** | **90 credits with at least 75 credits at 300-level from the following:** |
| 190.211 | Aviation Strategic Management |
| 190.222 | Basic Air Safety Investigation |
| 190.224 | Environmental Impacts of Aviation |
| 190.225 | Intro Reaser Methods in Aviation |
| 190.240 | Air Power |
| 190.249 | Aircraft Maintenance Management (30 Credits) |
| 190.306 | Airline Strategic Management |
| 190.307 | Airport Planning |
| 190.308 | Airport Operational Management |
| 190.309 | Design of Airways and Air Traffic systems |
| 190.313 | Adv Aviation Human Factors |
| 190.314 | Legal Issues in Aviation |
| 190.317 | Evaluation Methods in Aviation |
| 190.321 | Adv Air Safety Investigation |
| 190.327 | Managing Cultures in Aviation |
| 190.340 | Contemporary Aviation Security |

**Note:** Not all courses are available every year.

### Flight Instruction

A Commercial Pilot Licence (Aeroplane) is a prerequisite for this qualification. An application to the Flight Instruction Course is required. Please contact the School for details.

| **Compulsory courses** | |
|---|---|
| 190.282 | Flight Instruction Foundation Studies |
| 190.285 | Introduction to Aerobatic Principles |
| 190.301 | Flight Instruction Human Factors |
| 190.315 | Flight Instruction Fundamentals I |
| 190.335 | Flight Instruction |
| **Plus** | **30 credits at 200 or 300 level from 190-prefix courses.** |

# Contract Flight Training

**In addition to degree qualifications Massey University School of Aviation offers contract flight training to airlines and international aviation training institutions wishing to train cohorts of prospective pilots.**

**Massey University School of Aviation, a NZ CAA Rule Part 141 certified flight training organisation, offers world class training and facilities with a fleet of technically enhanced G1000 (full glass cockpit) Diamond DA40 and DA42 training aircraft fully equipped and certified for PBN operations.**

Flight simulation training devices include a new-generation Diamond DA-42 flight simulator, a Frasca Tru-Flite simulator plus part-task training devices and DA 40 Mentor. Training packages include training, accommodation and meals / laundry plus 'operations support' and all students have access to the University's pastoral care and accommodation facilities.

All students are issued with an iPad-based Electronic Flight Bag (EFB), and their uniforms, (except for strong black footwear and black socks which they must provide). International students must provide evidence of travel and medical insurance.

## FLIGHT TRAINING OPTIONS

### Basic Training

This training course is designed to prepare cadet pilots for entrance into an airline environment using scenario-based training methodologies (SBT), check-lists, SOPs and en-route guides. It includes PPL(A) and CPL (A) and Multi-Engine Instrument Rating (MEIR).

**Airline Cadetship**
69 weeks

| | |
|---|---|
| 216 hours in both single-engine and multi-engine aircraft, and multi-engine simulator: | |
| 190 hours | DA40 single-engine |
| 12 hours | DA40 Simulator |
| 10 hours | DA42 multi-engine |
| 4 hours | DA42 multi-engine sim |
| All relevant pre-flight and post-flight ground briefings | |
| PPL (A) and CPL (A) and IR theory | |
| CAA NZ subject examinations | |
| CAA NZ Licence / rating issues | |

## ADVANCED TRAINING OPTIONS

**Airline Bridging Course ('ABC')**
Two weeks

| |
|---|
| Equivalent of EASA MCC |
| Limited numbers per cohort. |

# Remotely Piloted Aircraft Systems

**The rapidly developing unmanned aviation (RPAS) sector has seen the need for increased formalisation and professional oversight of the industry, resulting in a drive by UAVNZ to ensure the quality and integrity of training for all clients seeking to upskill themselves in operating this technology in New Zealand.**

## PROFESSIONAL TRAINING COURSES

Massey University School of Aviation is one of only five New Zealand RPAS training organisations to be officially recognised as a UAVNZ Recognised Training Provider. Signatories agree to abide by a set of professional standards which embed standards governing the quality of the training, peer reviews of the training, and a complaints process for clients who consider that their training failed to meet these professional standards. This recognition fits seamlessly with Massey's continuing drive for best practice and 'safety -first' approach which governs both its Bachelor of Aviation degree and RPAS training courses.

As a CAANZ Part 141 training provider (fixed wing and RPAS) Massey offers two professional RPAS training courses:

1. **Introduction to Regulations and Operator Conduct**
2. **Human factors for RPAS Operators**

UAVNZ RECOGNISED TRAINING PROVIDER

INTERPINE INNOVATION

ROYAL AERONAUTICAL SOCIETY

STANDARDS NEW ZEALAND PAEREWA AOTEAROA

## INTRODUCTION TO REGULATIONS AND OPERATOR CONDUCT

RPAS continue to prove their capabilities in the aviation marketplace as utility vehicles and, with increasing technology, have become a dominant force in many aviation sectors. This course encompasses an ever-widening cache of NZ RPAS operators.

Massey has now graduated more than 1300 certified RPAS operators from this course since its inception.

| Certified RPAS operators include | |
|---|---|
| Dept. of Conservation | NZDF |
| Electricity lines companies | NZUSAR |
| Geospatial Analysts | Professional beekeepers |
| Higgins Roading and Infrastructure | Regional Councils |
| NZ Fire Service | RNZAF |
| NZ Police | Stuff NZ |

| Industries RPAS operators are working within include | |
|---|---|
| Aerial mapping | Oil and gas |
| Forestry | Real estate |
| Maintenance Facility Management companies | Tourism |

### Course overview

The three-day course is designed to meet CAANZ requirements for people with little or no aviation experience who want to enter the industry, or to expand their RPAS operations further. Successful outcomes from this course meet the initial training requirements for CAA Rule Part 102. The School is a CAA Rule Part 141 certified provider for both piloted and non-piloted training.

Graduates of the course will be able to:

- Identify threats to your operation and develop methods of mitigation
- Interpret the various aviation documents and regulations and be able to apply these to your operation
- Practice and comprehend radio telephony procedures
- Submit as evidence of training from a Part 141-M6 training organisation for an RPAS Part 102 Operator Certificate.
- Understand the conduct required to operate an RPAS in accordance with aviation best practice

### Course delivery and assessment: on-campus or online

The course is available as a three day on-campus training course comprising eleven modules. Alternatively, the theory modules may be undertaken online, followed by the practical assessment at a later date.

The course has 3 sections:

- Online assessment
- Theory course
- Practical flight examination

Successful completion of all three sections gains candidates the *Massey University Certificate of Competency – Remotely Piloted Aircraft Systems*, which complies with the initial training requirements for Part 102 operators.

| The theory course covers |
|---|
| Threats |
| Regulations |
| Visual navigation charts (VNC's) |
| Aeronautical information publications (AIP's) |
| Notice to Airmen (NOTAM) |
| An introduction to the Airshare website |
| Meteorology |
| Basic radio wave propagation |
| Transceivers |
| Procedures and phraseology |
| Call signs |
| Making and interpreting radio calls |
| Introduction to safety management systems |
| Operation planning |

**Note:** The final elective module can be tailored for a particular organisation or industry (e.g. forestry, NZ Defence Force, agricultural operations, regional councils, etc.). A practical demonstration of pre-flight planning, regulations, and operator conduct is included.

| The flight examination covers |
|---|
| Pre-flight test briefing |
| Field work |
| An RPAS flight test examination. (Multi Rotor Manual Reversion) |

**Note:** For those organisations holding NZCAA Part 102 Certificates, the School is authorised to conduct annual 'Part 102 MultiRotor Annual Operational Competency Assessments (OCAs) – including night-rated OCA assessments where required.

## HUMAN FACTORS FOR RPAS OPERATORS COURSE

Developed by Massey's in-house RPAS consultant and the RPAS team leader who observed that Human Factors principles applying to pilots of manned aircraft are also relevant to the operators in the unmanned aircraft industry. Consisting of 10 topics including the final assessment, it is particularly relevant to Part 102 operators and/or those engaging in multi- crew operations, night operations, and large, high-risk complex operations. Those applying for, or renewing, an OCA will find it particularly useful.

The course covers a wide variety of Human Factors pertaining to the operation of unmanned platforms in many different scenarios giving it international appeal and relevance. RPAS operators based in NZ or offshore are welcome to enrol.

| Modules include |
|---|
| Crew resource management and communication |
| Discussion topic: Accidents (Manned and Unmanned). This is designed to get students to start applying their knowledge to various scenarios. |
| Human information processing |
| Introduction to Human Factors |
| Judgement and decision making |
| Safety culture and Just culture |
| Stress anxiety and depression |
| Sleep and fatigue |
| Vision and visual illusions |

### Course delivery and assessment

The course is offered as an online course. Assessment is by way of a series of short answer questions. A grade of at least 50% will be required to pass the assessment.

### RPAS CONSULTANCY SERVICE

The School of Aviation also offers an RPAS consultancy service for those preparing their PART 102 Exposition for submission to the CAANZ.

Contact the School of Aviation for more information on RPAS courses and the consultancy services.

aviation@massey.ac.nz

MASSEY.AC.NZ

## CONTACT US

If you'd rather speak to a real person, feel free to give our friendly contact centre staff a call on 0800 627 739.

If you'd like to actually see a real person, drop in to our campuses in Auckland, Palmerston North, or Wellington.

Email contact@massey.ac.nz

## STUDENT ADVISERS

We understand it's a big decision. We have heaps of people available to answer any questions you may have about studying with us.

Dedicated international, Māori and Pacific student advisers are also available.

## EVENTS

We host a variety of exciting events. Please visit massey.ac.nz/events for details. We also have stands at various career and tertiary education expos held all over New Zealand (and beyond). Feel free to contact us if you want to find out when and where.

## INTERNATIONAL STUDENTS

The International Recruitment team is the first point of contact for prospective students. If you are considering studying at Massey we welcome your enquiry, and look forward to helping you join us.

Phone +64 6 350 5701
Email international@massey.ac.nz
Web massey.ac.nz/international

## SOCIAL MEDIA

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