



UNSW
SYDNEY

Australia's
Global
University

UNSW Science Aviation Postgraduate Programs Guide

How far can our
Business Class take you?





UNSW AVIATION is focused on combining leading research, world-class facilities and practical teaching to create graduates ready to take on global opportunities within the Aviation sector.

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WHY STUDY WITH UNSW AVIATION?



UNSW Sydney is one of Australia's leading research and teaching universities. The university is ranked highly in international university rankings, is recognised as being a leading innovator with the strongest links to industry, and has graduates that are sought after by industry. UNSW is also a member of the prestigious Group of Eight, a coalition of Australia's leading research intensive universities. UNSW Aviation operates as a School within the Faculty of Science at UNSW Sydney, and is the only stand-alone university aviation school in Australia. The School also includes the Transport and Road Safety group which is actively engaged with research benefiting the community.

Our aim at UNSW Aviation is to produce graduates of the highest calibre, whose qualifications are recognised throughout the world as being of superior academic quality and of industry relevance. Our strength lies within our connections with industry, through the industry facilitators who bring a wealth of aviation experience to the courses, and the constant dialogue our academic staff have with regulatory authorities, industry bodies, and research collaborators. We also deliver flying training under our own Air Operators

Certificate (under Civil Aviation Safety Regulations Parts 141/142).

At postgraduate level we offer coursework programs via distance to professionals planning to further their career in the Aviation industry. These programs are also for those working with or hoping to work with aviation organisations and who want to further develop their understanding of the industry. The flexibility of these programs is not just in courses being offered via distance to enable professionals to balance work and study, but programs are structured to allow entry and a duration of study that takes into consideration combinations of formal qualification and industry experience.

We also offer research programs of 1.5 to 4 years duration, which enable you to focus on a substantial piece of research under the guidance of one of our academic supervisors.

So if you are looking to take the next steps in your career with a professional industry-linked qualification in aviation, a degree from a world-class teaching and research university such as UNSW will take you there.

UNSW Achievements:

-  **45th in 2018 QS World University Rankings.**
-  **85th in 2018 Times Higher Education World University Rankings.**
-  **Graduates most hired by LinkedIn's top 30 most in demand employers.**
-  **Highest amount of funding in Australia from the Australian Research Council, 2015.**
-  **Highest level of funding in the country in linkage grants from the Australian Research Council, 2014.**

PROGRAM SNAPSHOT

Program Type	Description	Degree and Code*	Duration**	Who is it for?
Aviation Management Coursework	Coursework programs taken via distance for professionals working in an aviation related environment and wish to enhance their knowledge of aviation management.	Graduate Diploma in Aviation Management (5741)	0.5-1 year***	Students who do not hold a University degree but have at least 1 year of relevant industry experience.
		Master of Aviation Management (8741)	1-2 years***	Professionals who have a University degree and may or may not have relevant industry experience.
Research	Work on a substantial research project under the supervision of an academic staff member.	Master of Philosophy (2475)	1.5 years	An alternative to Honours for undergraduate degree holders returning to study after a period away, who would like experience and training in conducting research, or are looking to get into aviation research and do not have the relevant background.
		Master of Science (by Research) (2905)	2 years	Students who hold both an undergraduate and postgraduate coursework or honours degree, with some research experience.
		Doctor of Philosophy (1900)	4 years	Graduates from an undergraduate Honours degree with a minimum of Honours Class 2 Division 1.

*UNSW Program Code. **Full-time or part-time equivalent. ***Advanced Standing will be granted depending on your level of formal qualifications and industry experience which will shorten the duration of the program.

AVIATION MANAGEMENT COURSEWORK

Why do postgraduate study? Get the opportunity to network with a broad range of aviation professionals, extend and deepen your knowledge on aviation issues, and advance your career.

A broad range of students choose to undertake a postgraduate degree in Aviation. Current students work in administration, management, customer service, or technical areas; in jobs including managers, flight attendants, air traffic controllers, pilots, engineers, and safety officers. Employers of current students and graduates include Qantas, Airservices Australia, Rex, the Defence Forces, Sydney Airport, the Civil Aviation Safety Authority, Virgin Australia, Singapore Airlines, Cathay Pacific, Qatar Airways and Emirates, to name a few. These professionals are undertaking their studies to enhance their professional knowledge of the aviation industry and to gain a competitive edge for their career prospects. Personnel with technical skills, such as engineers and pilots, can enhance their knowledge of management and commercial issues, while people with a commercial and business background have the opportunity to more fully understand airline strategy or to further their overall knowledge of the technical issues which are so important to aviation operations. Almost everyone has to have some knowledge of safety and security. We also have students with non-aviation backgrounds working in the legal or banking industries who are looking to develop aviation industry specific knowledge so as to gain entry into the industry or work with aviation organisations.

The benefits to our students, regardless of their background, are the opportunities to interact with a broad network of people locally and internationally working in the aviation industry. The experience and

different perspectives every student brings to their course, along with the industry experience of our facilitators, creates a rich learning environment with practical tools and knowledge that can be used immediately in the workplace. Because of this, you are able to obtain career progression whilst undertaking the program and do not need to wait until you have finished. Through postgraduate study, especially the Master of Aviation Management program, you also gain experience in research methodology and techniques, another skill valuable to managers in the workplace.

As many of our students are professionals and managers working in aviation related environments, we offer courses for these programs via distance education to enable our students to balance work, postgraduate study and personal commitments. We also have dedicated student service staff who provide high quality advice and support, particularly important for busy professionals studying via distance.

The flexibility of our programs also extends to choosing the right program for you based on your formal qualifications and industry experience, and the program may be shortened depending on the length and type of industry experience you have. Articulation from the Graduate Diploma to the Master of Aviation Management is available where you are progressing well and wish to extend your studies to a higher level.

Examples of relevant industry experience considered in applications include:

- ✓ *Advanced flying training (e.g. any holder of Command Instrument Rating, Commercial Pilot Licence or Air Transport Pilot Licence)*
- ✓ *Air traffic controller*
- ✓ *Airport operations specialist*
- ✓ *Airport compliance personnel*
- ✓ *Airport/aviation consultant*
- ✓ *Aviation legal practitioner*
- ✓ *Airline captain, first officer, second officer*
- ✓ *Business strategy analyst*
- ✓ *Defence force personnel*
- ✓ *Flying instructor*
- ✓ *Flight attendant*
- ✓ *Flight scheduler*
- ✓ *Human factors analyst*
- ✓ *Licensed aircraft maintenance engineer, aircraft technician*
- ✓ *Managerial role*
- ✓ *Marketing and sales personnel*
- ✓ *Network planner*
- ✓ *Police and fire fighters*
- ✓ *Research analyst*
- ✓ *Revenue analyst*
- ✓ *Flight dispatcher and load controller*
- ✓ *Flight safety operations and risk management personnel*

Our Graduate Diploma in Aviation Management and Master of Aviation Management programs have been developed with industry input and draw upon a range of current and diverse fields to provide you with the skills and knowledge to be effective in a contemporary Aviation environment.



Graduate Diploma in Aviation Management (Program 5741)

DURATION

48 units of credit (UOC) (8 courses of 6 units of credit each)

MINIMUM ENTRY REQUIREMENT

One year of relevant professional experience

The Graduate Diploma in Aviation Management (GradDipAvMgmt) is designed for students who do not hold a University degree but have at least 1 year of relevant industry experience. It is also a pathway for those without a first degree to gain entry to the Master

of Aviation Management. The Graduate Diploma is comprised of 8 courses covering areas which include law and regulations, safety and security, airline and airport management, technical operations and aviation economics. You may choose courses in any order that suits your interests and may study one to three courses in any term depending on your other commitments. If you have more than one year relevant professional experience you may be eligible for advanced standing into the program which will shorten the duration of your studies as follows:

Industry Experience	Maximum credit granted (UOC)	Units of credit required for completion of GradDipAvMgmt (UOC)
A minimum of 1 year	0	48
A minimum of 2 years	12	36
Completion of advanced flying experience to ATPL	12	36
A minimum of 5 years	24	24

This table is a guide only and advanced standing will be formally assessed when you apply for the program.

Master of Aviation Management (Program 8741)

DURATION

96 units of credit (UOC)

MINIMUM ENTRY REQUIREMENT

A three-year AQF level 7 undergraduate Bachelor's degree or equivalent

The Master of Aviation Management is designed for professionals who have a university degree. It is comprised of 16 courses covering areas which include law and regulations, safety and

security, airline and airport management, technical operations, and aviation economics. It also includes a research project (AVIA5020) taken in your final term under the guidance of a supervisor on an aviation topic of your choice. You may choose courses in any order that suits your interests and may study part-time or full-time in any term depending on your other commitments. If you have more than half a year of relevant professional experience you may be eligible for advanced standing into the program which will shorten the duration of your studies as follows:

Degree*	Industry Experience	Maximum credit granted (UOC)	Units of credit required for completion of MAvMgmt (UOC)
Bachelor in Non-Cognate Discipline	0 years	0	96
	A minimum of 0.5 years	24	72
	A minimum of 2 years	36	60
	A minimum of 5 years	48	48
Bachelor in Cognate Discipline	A minimum of 0.5 years	36	60
	A minimum of 2 years	48	48
Bachelor of Aviation (Honours)	N/A	48	48
UNSW Graduate Diploma in Aviation Management	N/A	48	48

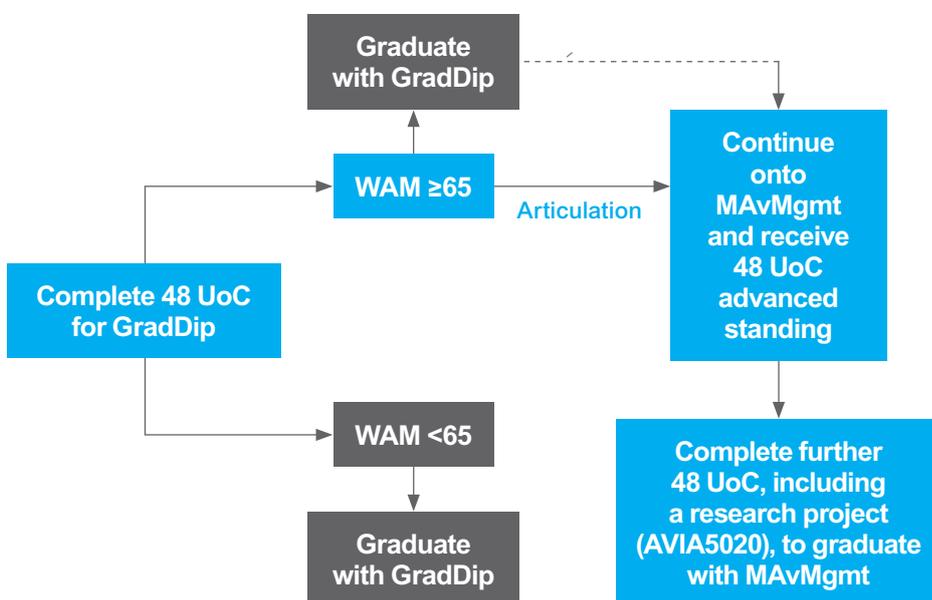
*Cognate disciplines include:- Aviation, Science, Engineering, Psychology, Management, Economics, and Commerce.

This table is a guide only and advanced standing will be formally assessed when you apply for the program.

Articulation to the Masters Program:

Students who successfully complete the requirements for the Graduate Diploma in Aviation Management with marks greater than or equal to an average of 65, may choose to articulate into the Master of Aviation Management. Upon articulation, students will only have 48 UOC of additional study including a research project (AVIA5020), remaining to achieve the Masters degree.

Articulation Pathway for students from the GradDip 5741 to Masters 8741:



AVIA5020 Research Project

The research project is a capstone course in the Masters program undertaken in your final term, and aims to draw together everything that you have learned during the program. The main aim of this course is to provide you with practical skills in research relevant to the applied aviation environment. This is your opportunity to demonstrate your ability to take initiative and use your imagination to solve problems in the industry, a key attribute of graduates from the program. The project must involve an original investigation to determine answers to questions that are pertinent and useful to developments in some area of aviation. It will be of a substantive size and can either be a comprehensive literature review or a short piece of original research which could be applied to your current workplace.

Examples of projects:

- Study of the development of low cost carriers in Hong Kong
- The importance of physical flexibility in airport terminal design
- Passenger standard weights and the obesity epidemic – the impact on air transport operations
- Analysis of best- practice principles for setting an outsourced service provider's scope of liability
- The future of biofuels
- Human factors issues in military unmanned aerial system accidents
- Flight crew role assignment on flight safety in air transport operations
- The safety implications of aircraft maintenance outsourcing
- Identifying the key job stressors affecting cabin crew performance and safety
- The risks and advantages of automation in air traffic control

OUR COURSES

Our courses are written and coordinated by experts with substantial industry experience, have rigorous academic standards, and are designed to guide student learning.

Our courses are delivered via distance using the university's eLearning system, and are regularly reviewed to ensure quality and relevance. Whilst enrolled, you will also have access to the UNSW library system with access to a wide range of books and journal articles online.

AVIATION LAW AND REGULATION

AVIA5001 **Law and Regulations in Aviation**

An overview of the regulatory structure of civil aviation in Australia with a focus on legal systems and the powers, responsibilities and scope of various aviation regulatory authorities. The course includes a practical insight into legal implications associated with roles in the industry.

AVIATION SAFETY AND SECURITY

AVIA5003 **Aviation and Security**

Exploration of the human and organisational dimensions of aviation security and mechanisms for implementation of security initiatives. An explicit understanding of responsibilities in relation to security is gained along with the ability to determine and report on security events.

AVIA5004 **Aviation Safety and Accident Prevention**

This course provides an introduction to the commercial aviation safety system and strategies to make that system safer, specifically in relation to commercial air service operations in Australia. The course also focuses on accident investigation and prevention, and the roles of the Australian

Transport Safety Bureau and aviation regulatory authorities.

AVIA5015 **Safety Management Systems**

The International Civil Aviation Organisation (ICAO) requires member states to implement Safety Management Systems regulations for air transport operations. This course describes the requirements for Aviation Safety Management Systems and provides a practical guide to their development, implementation and use, as well as their value in facilitating ongoing monitoring of safety health.

AVIA5017 **Human Factors in Transportation Safety**

This course focusses on the application of human factors in the context of transportation, and particularly transportation safety. It will consider the role that human factors play in normal operations, as well as in the tragedies that garner media attention. Most of the concepts discussed are applicable across transportation modes, and examples will be drawn from aviation, rail, maritime, road, and even space, transportation. The primary focus of the course is on commercial, rather than private, transportation.

AVIA5018 **Aviation Human Factors**

An in-depth introduction to human factors in the context of organisational efficiency, and management of error and safety. Basic principles of physical and cognitive human performance are covered along with a detailed analysis of error, situational awareness, ergonomics and

the evaluation of human factors. Specific aviation coverage includes crew resource management (CRM), human factors in aircraft operations, air traffic control, maintenance and management.

AVIA5022 **Accident Investigation Techniques**

Introduces students to the skills required of an aircraft accident investigator and the processes of investigation. Principles of investigation, regulatory requirements, material evidence, witness evidence, interview techniques, preservation, transportation and alternative sources of evidence, environmental issues, proactive investigation methods and reporting are covered.

AVIA9101 **Safety Risk Management: Human Performance**

Provides an introduction to safety risk management with a focus on issues in human performance through the introduction of basic processes in risk management and safety and models for managing workplace safety. A range of hazards where human interaction with systems is paramount will be examined considering their measurement, monitoring and risk management.

AVIA9201 **Safety Risk Management: Physical Hazards**

Examines the principles of safety risk management, focusing on physical hazards, including the identification, assessment and control of hazards such as manual handling, noise, electricity, chemical and biological hazards, and major hazards and disasters. Different theories of accident causation will be explored.

Where possible, assignments relate to the transfer of theory to workplace situations, and as such, many of the tasks undertaken in courses may be later used in the workplace, reinforcing the theory and benefiting both yourself and your employer.





Interaction and engagement between students and academic facilitators is encouraged.

AIRLINE MANAGEMENT

AVIA5005

Airline Operational Management

Covers the operational and day-to-day aspects of airline management which drive major airline cost areas such as operational control, aircraft maintenance outsourcing, crew planning and scheduling, airport management, catering, reservations management, delay and punctuality control, marketing and emergency planning.

AVIA5009

Airline Corporate Management

Provides an insight into the complex and interwoven nature of the airline business and gives a picture of the prime drivers, which differentiate airlines including organizational structures, business planning and budgeting, financial analysis, supply and demand analysis, economics, forecasting, commercial agreements liaisons, scheduling planning and fleet planning.

AVIA5037

Airline Operations and Delay Management

Provides practical airline operations knowledge, coupled with the use of maths models in delay analysis. The course focuses on airline ground operations, delay data collection and analysis, delay development modelling, airline networks and the emerging concept of robust airline scheduling.

AIRPORT MANAGEMENT

AVIA5006

Airport Planning

This course covers a range of issues relating to airport planning including: town planning, access, obstacles, growth, noise, environmental and political issues, and ownership issues. The process of privatisation and investment evaluation, community benefits, airport master plans, aircraft movement forecasting, passenger and freight flows, terminal planning issues, runway and taxiway planning are also included.

AVIA5007

Airport Operations Management

Day-to-day operational issues of airport management are covered such as managing annual budgets, fees and determination methods, emergency planning, relationships with airlines and industry bodies, political issues management, slot management-peak time issues, aircraft parking control, and managing concessions. General administrative tasks at airports including roads, signs, flight information, electricity and water are discussed, as well as exploration of business opportunities.

AVIATION ECONOMICS

AVIA5030

Aviation and Tourism: Economic and Geographic Perspectives

Develop the capacity to apply economic and geographic concepts and theories to understand air transport and tourism interactions. An introduction to issues in aeropolitics and tourism access, analytical methods to measure and quantify aviation's tourism impact, the economic geography of airline networks and route development is provided.

AVIA5032

Quantitative Analysis in Aviation Economics

Focuses on the application of quantitative methods in the field of aviation, providing a fundamental understanding of the quantitative skills and techniques applied in aviation economics, including a combination of specialised skills in modeling, and understanding and forecasting air transport trends and drivers.

AVIA5035

Airport Economics, Management and Policy

Introduction to the economics of air transport, including policy which will provide an appreciation of specialist knowledge through topics such as economics of air navigation service providers, economics of airports, finances of aviation safety and security, as well as introduction to the role of aviation in the broader economy.

AVIATION TECHNICAL OPERATIONS

AVIA5008

Air Traffic Management

Provides an understanding of Air Traffic System safety including the definition and quantification of risk, primacy and management, as well as Air Traffic System requirements, the development of efficient procedures, management of traffic priorities, environmental management, financial imperatives, and liaison with the industry and public.

AVIA5024

Flight Deck Operations of Advanced Transport Aircraft

This course has an emphasis on flight deck error: its origins and nature, as well as activities that can be undertaken to reduce error. Operational human factor issues, decision-making and implementation, and flight deck task management are considered. An extensive description of advanced transport aircraft technology such as fly-by-wire control theory and cockpit controls and automation is included.

AVIA5039

Airworthiness for Transport Category Aircraft

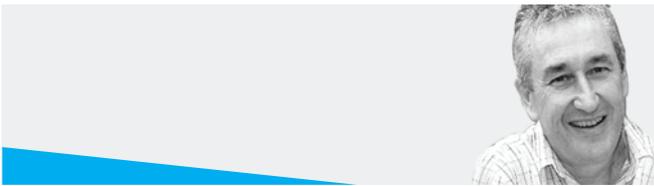
What does airworthiness really mean? What does it take in practice to achieve and sustain particularly for large, complex aircraft supported by large, complex organisations? These questions are answered considering international and national frameworks, underlying principles, regulatory requirements, processes, terminology, governance and implementation challenges.

OUR INDUSTRY FACILITATORS

UNSW Aviation's strength lies in its faculty/industry based structure and its qualified and versatile team.

UNSW Aviation is committed to maintaining high standards essential to the future of the aviation industry in Australia and throughout the world. Teaching staff are expected to be able to refer to academic readings and case studies, and also to relate examples from their own professional experiences. Each course has its own facilitator who is responsible for interacting

with students and enabling students to interact with one another. The course facilitator leads discussion groups, ensures participation in web-supported activities, advises students on where to source research materials and responds to questions relating to the course and assignments. Our Industry Facilitators are listed below.



DR RONALD BARTSCH

BA, BSc, LLB, LLM, MPhil, Dip Ed

Career Highlights

- Barrister to the High Court of Australia
- Aviation Specialist and Member of Administrative Appeals Tribunal
- Group General Manager Safety, Compliance & Operational Risk, QANTAS
- Manager of Air Transport Operations with CASA
- President Australian RPAS Consortium
- CEO Innovating Australia
- Principal and Managing Partner of AvLaw Aviation Consultants
- Director of Regional Express Holdings and Chair of their Board Safety and Risk Management Committee

Academic Interests

- Author of numerous publications including "International Aviation Law", "Aviation Law in Australia 4th Edition", "Drones in Society" and contributing author for "Halsbury's Laws of Australia."
- Course Facilitator of AVIA5001 Law and Regulations in Aviation and AVIA5004 Aviation Safety and Accident Prevention



DR MAREK BEKIER

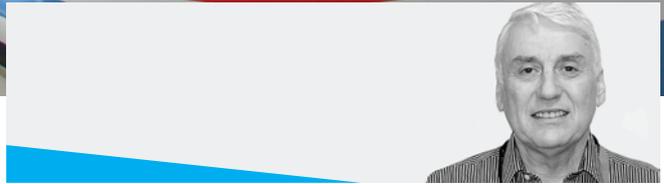
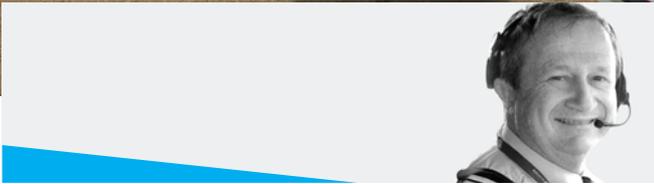
MSc (Aviation Management), PhD (UNSW)

Career Highlights

- ACC Air Traffic Controller in Central Europe (Zurich ACC)
- Domain Manager ATM, Head of Operations for the Tower and the Approach in Zurich Airport
- General Manager for Air Traffic Management, Zurich
- Director Integra (Norway): Integra is a globally operating Aviation consultancy
- Director Integra Aviation Academy Norway: IAAN is an ATM Training Organization providing ATM formation to professional ATCO
- Senior Vice-President Europe ACR Aviation: Swedish air traffic service provider

Academic Interests

- Course Facilitator of AVIA5008 Air Traffic Management
- Efficiency increase of ATM system through application of automation
- Capacity increase and cost-efficiency of aviation system
- CBA within the ATM industry
- Analysis of operational effectiveness of new technologies / target concepts within global ATM



CAPT. SIMON HENDERSON

BSc (Melb), Grad Dip (Technology Management), PhD (UNSW)

Career Highlights

- A330 Fleet Standards Manager with Virgin Australia
- Type Rating Examiner and Training Proficiency Captain with Emirates Airline
- Flight Training Development Manager for Ansett Australia
- Recipient of the Flight Safety Foundation Award for Achievement in Human Factors and Flight Safety in 2002
- Flying safety staff officer for Air Lift Group based at Richmond in NSW
- Worked with the LOSA collaborative and member of the UKCAA CRM advisory panel, IATA Training and Qualification Initiative and CASA's Flight Training Panel
- Industry co-chair of the Flight Crew Licensing Standards Sub-committee
- Member of the joint CAST/PARC Flight Deck Automation Working Group
- Founding member of the Evidence Based Training Foundation

Academic Interests

- Course Facilitator of AVIA5024 Flight Deck Operations for Advanced Transport Aircraft

MR TREVOR JONES

BSocSc(Econ) MSP

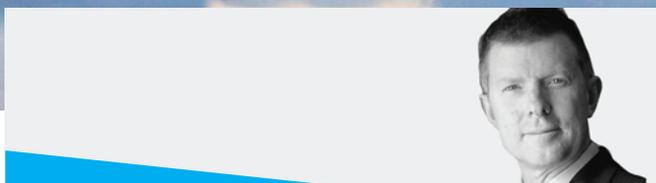
Career Highlights

- Head of Security Qantas Airways
- Manager Group Security Policy & Compliance
- Manager Policy and Compliance for the Federal Airports Corporation (FAC)
- Security Manager for Sydney (Kingsford Smith) Airport
- Australia's representative on the Airports Council International (ACI) World Operational Safety Task Force
- FAA Commercial pilots licence with instrument and multi-engine endorsements

Academic Interests

- Course Facilitator of AVIA5003 Aviation & Security

The course facilitator leads discussion groups, ensures participation in web-supported activities, advises students on where to source research materials and responds to questions relating to the course and assignments.



DR PETER MURPHY

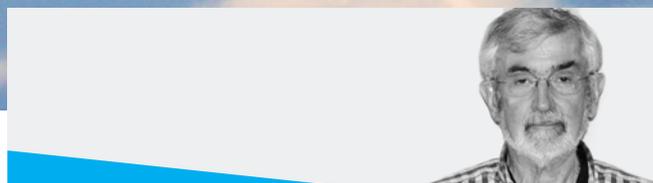
BA (Hons in Psychology) (UQ), Grad Dip Human Resource Management (University Canberra), MA (International Relations) (Deakin), PhD (Psychology) (Adelaide)

Career Highlights

- Royal Aeronautical Society (Australian Division) Field Award for Flying Safety
- Senior human factors specialist within Australian Army Aviation
- Aviation accident investigator, human factors specialist
- Director of Psychology, Australian Defence Force
- Award for Research Leadership, The Technical Cooperation Program
- Canadian Forces Chief of Military Personnel Commendation
- Fellow of the Australian Psychological Society
- Associate Editor – Australasia, Aviation Psychology and Applied Human Factors
- Consultant, CASA, non-technical skills and fatigue risk management systems

Academic Interests

- Aviation psychology and fatigue risk management
- Performance enhancement in high-reliability occupations
- Strategic human resource management
- Cross-cultural teams, individual and organisational resilience
- Human sciences research in real-world settings
- Course Facilitator of AVIA5018 Aviation Human Factors



MR ROD SULLIVAN

BE (Civil) (Qld), BEcon (Qld), GradDipAdmin (CU)

Career Highlights

- Airport operations specialist with extensive experience in airport planning and management, development/interpretation of airport standards, airport safety regulation, design of airport facilities, aircraft noise modelling and airspace protection.
- Career spans 50 years in the aviation industry – 25 years with the civil aviation regulator and 25 years as an independent aviation consultant.
- Has prepared Airport master plans for a number of Australian airports and conducted airport safety and technical audits in Australia, India, Mauritius and New Zealand. Prepared aerodrome manuals and safety management systems to meet ICAO and Australian standards. Provided advice to Qantas, CASA and the Commonwealth on airport design and operation.

Academic Interests

- Course Facilitator of AVIA5006 Airport Planning and AVIA5007 Airport Operations Management
- Provider of competency based training and assessment to airport roles of Aerodrome Reporting Officer and Works Safety Officer



ADJUNCT PROF. JOHN VINCENT

BE Aero (Hons) UNSW, FRAeS, CEng, GAICD

Career Highlights

- Executive consultant providing services to the aviation and broader engineering communities
- Chairman of the Board of the Qantas Foundation Memorial Ltd
- President of the Royal Aeronautical Society Australian Division
- Engineering and maintenance experience in executive, general and accountable airworthiness management roles in large airline Engineering and Maintenance organisations

Academic Interests

- Course Facilitator of AVIA 5039 Airworthiness for Air Transport Aircraft



MR DAMIEN WALLACE

BSc(Hons), MBA, GAICD

Career Highlights

- Head of Operations Planning and Control at Qantas Airways
- Group General Manager Network and Airline Operations at Qantas Airways
- Chairman of Airport Coordination Australia (ACA)
- Chief of Staff and Senior Policy Advisor to four Australian Government Cabinet Ministers

Academic Interests

- Air Traffic Management and improvements in predictability and efficiency in airline operations
- Course Facilitator of AVIA5005 Airline Operational Management



MR PETER WIGENS

MBA (UNE), LLB (Hon) London, LLB (UNE), GDLP (ANU)

Career Highlights

- Safety Investigator of the Bureau of Air Safety Investigation
- Director of Safety, Security and Quality Assurance for two major Asia-Pacific International Airlines
- Served on IATA and Flight Safety Foundation safety committees
- Involved in the establishment of IOSA
- Member of the International Society of Air Safety Investigators (ISASI)

Academic Interests

- Course Facilitator of AVIA5022 Aircraft Accident Investigation Techniques

UNSW Aviation is committed to maintaining high standards essential to the future of the aviation industry in Australia and throughout the world.

HOW TO APPLY

Visit [page 29](#) to see how you can get your ticket to join our **business class** and take the next steps in your career.

OUR STUDENTS AND ALUMNI



Frankie's observations:

- The administration support from the School is great.
- I like the structure of the units, assignments and exams that provide realistic examples of the industry activities.
- I have made some great connections.
- The program has given me a better understanding of the depth and breadth of my area, which has made me a better contributor to Flight Operations Support.

CURRENT STUDENT FRANKIE BRYANT

Can you tell us a bit about yourself and why you chose to study with UNSW Aviation?

I work for Virgin Australia managing a support function for the pilot workforce. My team members are located in all ports where our pilots are based, and provide information to facilitate pre-flight planning and day-to-day operations. We also pass company messages to pilots and pass pilot concerns to senior management. It's an unusual job, and Virgin prides itself on having concern for all its people. I came to UNSW as it had a good reputation amongst the pilots, and have stayed because it is very tailored to working individuals.

What features do you like about the program?

The administration support from the School is great. I never did an undergraduate degree so when I started studying at UNSW I hadn't written an essay since I was in high school. By asking for advice, and then following it, I have been able to work through the courses in a way that has helped

me develop the academic writing skills that I need. I also like the structure of the units, assignments and exams that provide realistic examples of the industry activities. I have also made some great connections with other students.

How do you manage work and study at the same time?

I use my downtime to study. I travel a lot for work so I read each unit and readings through once, usually when I am on a flight, getting an overview of the content. Then I have an app, pdf expert, which "reads" out text, so that is my second pass though the material. It's not always easy to understand after the first reading but if you have already read the text once then you can often pick up ideas that you missed the first time round when having the app read out the text. I can do this during my exercise program. The third step is longer, and I go through once more and make notes about the unit to which I can refer later. I include the notes for shorter readings in this text, but longer readings will get their own separate reference document. The actual

units are not too long, but the readings can be extensive, and take you a lot longer, as they go into more depth. You do have to limit your research time, as it can go on forever if you aren't careful! My company also offers study assistance, principally 2 days of study leave per term, that I take full advantage of for my exam preparations.

How has your career progressed during the course of the program?

I don't hold a pilot's license and I'm not a technical specialist so I am about as senior as I can be in Flight Operations. I enjoy my job and responsibility. The program has helped to give me a better understanding of the depth and breadth of my area, which has made me a better contributor to the overall Flight Operations Support team.



Graham's observations:

- The program offers a diverse range of courses, covering a wide spectrum of the aviation industry.
- I have been able to select courses that directly feed into my current role, while selecting other courses of interest that may help in my future career.
- These courses are facilitated by industry leading subject matter experts, who draw on their years of experience to make the modules both informative and interesting.

CURRENT STUDENT GRAHAM STEVENSON

Can you tell us a bit about yourself and why you chose to study with UNSW Aviation?

I am originally from Melbourne however I have been working overseas for the past 18 years. I currently work for Etihad Airways in Abu Dhabi, UAE. I am Head of PMO – Midfield Programme, managing Etihad Airways migration to, and launch of operations at the Midfield Terminal Building, the third largest terminal building ever constructed. I chose to study with UNSW Aviation for two reasons. Firstly, I made a major career change into the Aviation industry several years ago and felt that to better understand the industry and to progress my career, a formal qualification in aviation would be beneficial. Secondly, I had undertaken a previous postgraduate program at UNSW (MEngSc in Project Management) and really enjoyed the experience.

What features do you like about the program?

The program offers a diverse range of courses, covering a wide spectrum of the aviation industry. I have been able to select courses that directly feed into my current role, while selecting other courses of interest that may help in my future career. These courses are facilitated by industry leading subject matter experts, who draw on their years of experience to make the modules both informative and interesting. The level of interaction with a diverse student body, from both a cultural and professional perspective has added significantly to the experience. Being able to study at my own pace is key for me as I have to balance my studies with a busy work and family life.

How do you manage work and study at the same time?

The program offers maximum flexibility in how I balance my work and study at the

same time. Being organised has been the key to managing my time. I have also enrolled in only one course per term in order to maintain a healthy balance between, work, study and my family life.

How has your career progressed during the course of the program?

During the course of the program my career has progressed at Etihad Airways. I began my career at Etihad Airways as Senior Manager – Entry Into Service, project managing the introduction of the A380 and B787 aircraft types into Etihad Airways fleet. In 2015 I progressed into my current role as Head of PMO - Midfield Programme in which I have to drive effective coordination through an informed, knowledgeable grasp of issues across Midfield Programme decision and delivery levels. In this role I have drawn on much of the diverse knowledge gained from the UNSW Aviation postgraduate program to deal with a wide range of issues.



Kevin's observations:

- The Aviation Management program has provided me with the knowledge and skills, to not only understand the aviation environment, but also enhanced my approach when working to improve safety in other industries.
- In the future I want to be more involved in aviation investigation and this degree continues to help me to fulfill my ambitions.
- The program was a cornerstone in achieving my current executive role.

CURRENT STUDENT KEVIN KITCHEN

Where were you when you applied to study with UNSW Aviation and why did you want to do the postgraduate program?

I was working in the Technical Panel for the Office of the National Rail Safety Regulator in Sydney. My role was providing technical advice and carrying out investigations into system safety and rolling stock engineering matters. I chose to undertake the Masters program in aviation because I like aviation and I wanted to broaden my knowledge from another industry. I also enjoy new challenges.

Why did you choose UNSW?

I had completed an earlier postgraduate study through UNSW and I had received feedback that the UNSW Aviation

Management Masters program was a useful and well respected degree here and overseas.

Where are you now?

I am now the Deputy Chief Investigator for the Office of Transport Safety Investigations (OTSI). OTSI is an independent statutory authority responsible for determining the contributing factors and safety issues related to incidents and accidents involving, or within the bus, ferry and rail industry. We also carry out rail investigations on behalf of the Australian Transport Safety Bureau (ATSB). Through that collaboration I will shortly be undertaking training in aircraft accident investigation, an area of which I have a great passion.

How has the Master of Aviation Management helped you achieve your goals?

The Aviation Management program has provided me with the knowledge and skills, to not only understand the aviation environment, but also enhanced my approach when working to improve safety in other industries. In the future I want to be more involved in aviation investigation and this degree continues to help me to fulfill my ambitions. The program was a cornerstone in achieving my current executive role and I highly recommend the program to anyone who wants to create their own destiny.

AVIATION RESEARCH

What is the research degree for you?

Research involves original and critical enquiry that makes a significant contribution to existing knowledge of relevance both nationally and internationally. Postgraduate research students are required to produce a thesis embodying the

results of independent investigation under the guidance of an academic supervisor. There are three types of research degrees available which differ in terms of entry requirements, duration, coursework requirements, and the depth of the thesis.

Master of Philosophy (MPhil)

DURATION

1.5 to 2 years full-time or part-time equivalent

ENTRY REQUIREMENTS

Bachelor degree in the relevant discipline from UNSW or a qualification considered equivalent at an acceptable level, usually Honours.

A Master of Philosophy (MPhil) degree provides an opportunity for you to complete a component of coursework relevant to Aviation, including research methodology, and a research project of at least 66% of the degree. The degree is ideal for you to acquire basic research training.

The MPhil is an alternative to Honours if you:

- ✓ *are returning to study after completion of an undergraduate degree and a period away, such as joining the workforce or having family; or*
- ✓ *would like to obtain experience and a qualification in conducting research; or*
- ✓ *have limited background or knowledge in aviation and would like to pursue a career in this area.*

Master of Science (Research) (MSc)

DURATION

2 years full-time or part-time equivalent

ENTRY REQUIREMENTS

A four year Bachelor degree with some research experience. Research experience might be obtained from an Honours degree, a Masters coursework degree or in the working environment.

A Masters of Science by Research degree requires completion of an original piece of research, more limited in scope and nature to that required for a Doctor of Philosophy (PhD). The level of research need is approximately equal to one major or two minor research papers published in international journals. Through the course of the program you will develop mastery of appropriate methodology, and present your findings in the wider context of Aviation. It is expected that in addition to completing a thesis, you will submit manuscripts to international refereed journals for dissemination world-wide.

Doctor of Philosophy (PhD)

DURATION

4 years full-time or part-time equivalent

ENTRY REQUIREMENTS

An appropriate four year Bachelor degree with first or upper second class Honours, or completion of a Masters by Research including a substantial research component.

In this program you will complete a piece of research that demonstrates a significant and original contribution to knowledge in Aviation. Through completion of the program

you will acquire advanced specialist research training and produce a thesis that summarises the research and provides evidence for independent thought and critical analysis, effective communication and expert knowledge of Aviation in the international context. The equivalent level of research need is approximately equal to three or more major research papers published in international journals. It is expected that, as well as completing a thesis, your manuscripts will be submitted to international refereed journals for dissemination world-wide.



Research involves original and critical enquiry that makes a significant contribution to existing knowledge of relevance both nationally and internationally.

FIVE REASONS TO DO A RESEARCH DEGREE

- 01** Fulfil your curious streak
- 02** Get equipped with research skills, critical thinking, time management and project management skills
- 03** Broaden your horizons and discover new knowledge
- 04** Get support and inspiration from colleagues and academics
- 05** Career advancement

OUR RESEARCH AREAS

UNSW Aviation is both a place of learning and one of active research.

At any one time there are a range of research projects being undertaken at all levels from undergraduate to postdoctoral. In keeping with UNSW's status as one of the leading research institutions, the School is building an impressive reputation in industry-oriented research. The School owns and operates research simulators for train and car driving safety studies as

well as a research flight simulator and an instrumented vehicle. It is possible that the operational simulators used for flying training might be used for research, and the School also operates an airborne research facility with scanning lasers and hyper-spectral cameras deployed in UNSW aeroplanes.

CURRENT RESEARCH AREAS:

Airborne Remote Sensing

Actively engage in the analyses of airborne data acquired from the School's scanning laser system and/or hyper-spectral camera system. Research will include algorithm development to optimise data quality and resolution, and applications may be undertaken in conjunction with teams of investigators from other Schools or institutions.

Aviation Meteorology

Aviation operations are undertaken in sometimes very severe meteorological conditions. Many of the meteorological processes important to aviation safety are better understood by utilising a combination of analytical and numerical mathematical techniques, which are common in applied mathematics. A range of interesting phenomena, including swirling flow boundary layers, turbulent boundary layers, airflow over and around topography, hydraulic jumps, effects of Coriolis force on wake flows, etc are available.

Airline Strategy and Business Models

Low Cost Carriers are now well established in most regional and shorthaul markets. Longer haul low cost operations have a much less consistent success rate, particularly for low cost airlines that lack close relationships with low cost regional or full service network airlines. You will research cost, product, and route factors that drive airline performance and financial outcomes.

Models of Air Travel Behaviour

Be involved in a program of research in modeling air travel behaviour of visitors. You will undertake review and development of experimental design approaches suitable for answering key questions raised by destination stakeholders.

Dispersal Measurement Approaches

Sustainable regional dispersal of visitors is important for the well-being of Australian regions. You will complete a critical review of dispersal measurement approaches, and partake in a program of research to develop an innovative measurement approach for practical implementation.

The Influence of Panic on Effective Decision-Making in Aviation

Investigate the influence of panic on effective decision-making on the flight deck. Research will include both a literature review and primary data collection using the school's flight simulator.

Risk Compensation in Aviation

How people perceive and respond to risk is an important determinant of safety outcomes. Risk compensation is the controversial notion that people take more risks when given safety equipment or interventions. The conditions under which risk compensation may occur will be assessed in a complement of studies, potentially focusing on pilots or other aviation personnel.

Fatigue on Commuter Trips

While many strategies target road safety on long trips, evidence suggests short regular (commuter) trips may also be subject to fatigue. Fatigue during commuting is an important problem at the nexus of workplace and road safety, and has been identified as a major issue for the Aviation industry. You will complete a range of simulator and on-road studies measuring drowsiness (as an index of fatigue) under various sleep conditions.



Airline Scheduling and Performance Measurement

The conventional way of airline scheduling is to use outputs from one stage as inputs of a following stage.

A major challenge in this conventional scheduling practice is the measurement of the operational performance of a schedule plan. Without detailed costing and simulation, current practices in the industry is commonly to benchmark the performance (e.g. on-time performance) against an arbitrarily chosen target. This project seeks to improve upon how airlines benchmark schedules and actual performance.

Applying Portfolio Theory to Tourism Marketing: Boosting Productivity via Strategic Diversification

Utilise portfolio investment theory within the context of determining an optimal marketing expenditure budget for tourism destinations. Tourism flows from different markets can be viewed as risk and return investments that are influenced by the tourism destination's marketing budget allocations. Using traditional finance theory, marketing budgets can be optimised to minimise risk (tourism flow volatility) and maximise returns (visitors to the destination).

Self-service baggage pick-up systems

Many airports around the world have self-service check-in facilities that passengers can use to check in their baggage. Upon arrival at the destination airport however, passengers still have to use carousels to pick-up their luggage. This is not secure and can be time consuming. Therefore, there is a need for systems that allow passengers to pick up their luggage at the location and the time of their choice. This research project is about designing systems that allow passengers to pick-up their luggage at any time and any location that is available.

New gate concepts

At airports gates generally have the same "old fashioned" design. In order to speed up the boarding process new boarding strategies have to be developed and technology may be used to ease identification and allow self-boarding of passengers. This research project concerns the analysis of boarding processes, the design of new boarding processes and an analysis of the impact of the application of new technologies on the efficiency and the security of the boarding process.

POTENTIAL RESEARCH AREAS:

In addition to the above topics, students can also undertake research in any of the following areas:

- ✓ *Air cargo supply chain*
- ✓ *Air travel behaviours*
- ✓ *Airborne remote sensing*
- ✓ *Airline alliances and partnering*
- ✓ *Airline scheduling*
- ✓ *Airport planning*
- ✓ *Applied econometrics*
- ✓ *ATC and automation*
- ✓ *Aviation and tourism*
- ✓ *Aviation business model*
- ✓ *Aviation finance and economics*
- ✓ *Aviation operations management*
- ✓ *Baggage handling systems*
- ✓ *Fatigue management*
- ✓ *Gate allocation strategies*
- ✓ *Human factors*
- ✓ *Safety management*
- ✓ *Utilisation of autonomous vehicles in aviation*

To see our current or completed research projects, please visit our website: aviation.unsw.edu.au/research/research.html

OUR ACADEMIC STAFF/ RESEARCH SUPERVISORS

Our academic staff teach in both our undergraduate and postgraduate coursework programs and actively engage in research supervising honours and research students. Their research interests are broad and cover a diverse range

of aviation issues, and they are in constant dialogue with regulatory authorities and a wide cross section of aviation industry representatives.



DR CARLO CAPONECCHIA

BA(Psych)(Newcastle), Grad Cert Univ. Teaching and Learning (UNSW), PhD (Psych) (UNSW)

Carlo undertakes research in Human Factors and Safety applied across several domains. His research interests include:

- Human error classification and HF taxonomy development and evaluation
- Risk perception and risk communication (including biases in risk perception, factors affecting the communication of safety information; risk compensation and risk behaviour)
- Improving training systems for complex skills through the use of objective data, as well as evaluating selection systems
- Risk management of psychosocial hazards at work (e.g., stress, fatigue and workplace bullying)

Professional Affiliations

- Human Factors and Ergonomics Society of Australia (Chair of the OHS Special Interest Group)
- International Association for Workplace Bullying and Harassment (IAWBH) – coordinator of the Risk Management special interest group
- International Commission on Occupational Health (ICOH)
- Australian Human Resources Institute (AHRI)



DR IAN DOUGLAS

DBA, MBA (UTS), Grad Cert in Education Studies (Higher Ed) (Sydney)

Ian has 25 years experience working at Qantas where his roles ranged through airport operations, fleet and airline planning, pricing, revenue management and alliances. His research interest is ASEAN aviation and the tensions between economic and institutional factors in development of airline strategy. He focuses on:

- Airline Alliances and Partnering
- ASEAN aviation
- Airline business model convergence
- Airline-Airport relationships.

Professional Affiliations

- Chair, International Air Services Commission (IASC)
- Air Transport Research Society – Network Committee
- European Aviation Conference – Organising Committee
- Hong Kong Council for Accreditation of Academic and Vocational Qualifications – Specialist
- Consults to the aviation industry working with both airlines and government agencies in the ASEAN region



DR TAY KOO

BCom (Hons), BSc, PhD (UNSW)

Tay's research involves applications of microeconomic and geographic approaches to the understanding of the distributional inequality and endogeneity of aviation and tourism. He has developed expertise in the area of micro- modelling tourist behaviour, which recently has resulted in the collaboration with safety scientists and human factors experts at UNSW Aviation on research investigating how safety risk information and new technology in aviation affect traveller behaviour.

Professional Affiliations

- World Conference on Transport Research Society (WCTRS)
- Council for Australasian Tourism and Hospitality Education (CAUTHE)
- Institute of Australian Geographers (IAG)
- Air Transport Research Society (ATRS)



PROFESSOR GABRIEL LODEWIJKS

MSc, PhD (TU Delft), FRAeS

HEAD OF SCHOOL

Gabriel specialises in solving engineering and logistic problems of companies and organizations active in the aviation cluster including airlines, airports, suppliers of baggage handling systems, aircraft manufacturers, suppliers of aircraft components, airport designers and air traffic control. These problems include:

- Optimization of maintenance, repair and overhaul processes
- Automation of air cargo handling systems
- Improvement of the quality of the flower supply chain handled through air cargo
- Tracking and tracing of equipment, components and people at airports and in companies
- Optimization of gate processes and baggage handling procedures to reduce the turn around time of aircraft
- Maintaining safety and security in airport logistic processes
- Improvement of passenger experience by streamlining airport logistics

Professional Affiliations

- Member of the Royal Dutch Society of Engineers
- Member of the board of the Royal Dutch Society of Transport Engineers
- Fellow of TRAIL (research school for transport, infrastructure and logistics)
- Scientific director of the Delft Center of Aviation
- Fellow of the South African Institute of Materials Handling
- Director of the Chinese joint smart ship and transportation center
- Guest editor of the International Journal of Computer Sciences and Systems (IJCSS)
- Member of the editorial advisory board of Bulk Solids Handling, the international journal of storing, handling, and transporting bulk



PROFESSOR JASON MIDDLETON

FRAeS, BSc, PhD (Monash)

- Jason's area of interest is in environmental fluid dynamics, including aviation meteorology (seabreezes, microburst and wind gusts), in wake flows from natural and manmade objects (in the atmosphere and ocean), in coastal oceanography (including coastal currents) and in the technologies of airborne remote sensing. He has published over 100 papers in refereed journals, and supervised over 20 students to PhD completion in a variety of areas listed above, and including aviation safety. Past advisory roles include the ARC Earth Sciences Panel, the Antarctic Science Advisory Committee, and the Integrated Marine Observing System Advisory Board. He is currently researching beach sediment erosion and deposition using a Piper PA 44 as a platform to obtain airborne lidar data of beach topography for over 100 beaches on the NSW coast.

Professional Affiliations

- Fellow, Royal Aeronautical Society



ASSOCIATE PROFESSOR BRETT MOLESWORTH

PhD (UWS), BAv (Hons) Aviation Management, Grad Cert – Social Health, Grad Cert – University Learning and Teaching, Commercial Pilots Licence (CPL), Advanced Aerobatics Rating

Brett's research interests involve human performance in complex social-technical environments, in particular, understanding the factors that influence individual's 'at-risk' behaviour. His interests cover three areas:

- **Pilots:** Predictors of pilots' risk-taking behaviour, training methods to improve pilots' risk management, effects of aircraft noise on cognition, pilot (mis)communication, and error management
- **ATC:** ATC and automation
- **Cabin Safety:** Crew-passenger communication (safety briefings)

Professional Affiliations

- Registered Psychologist
- Member of the Human Factors and Ergonomics Society (HFES)
- Member of the SAFE association (SAFE)
- Member Australian Aviation and Psychology Association (AAvPA)
- Member of the International Society of Air Safety Investigators (ISASI)



DR DAVID TAN

BCom (Hons), PhD (UNSW)

David specialises in aviation finance/economics and econometric methods for aviation research. His research interests include airline finance and economics, corporate governance, asset pricing, and applied econometrics. Recent research topics include::

- The impact of fuel hedging on airline systematic risk
- Did the formation of global alliances affect airline profitability?
- Developing a new instrumental variable in estimating price elasticity using flight level data
- Australia-Hong Kong air liberalization agreements and their influence on tourism flows
- Developing a downward-NPV measure that incorporates skewness of cash flows in investment decision making

Professional Affiliations

- Member of the Air Transport Research Society
- Member of the Council for Australasian Tourism and Hospitality Education
- Member of the Financial Integrity Research Network
- Member of New Zealand Association of Economists



PROFESSOR ANN WILLIAMSON

BSc (Hons), PhD (LaTrobe)

Ann's research is in the area of human factors, primarily focussing on two related areas; the effects of fatigue and the role of human error in injury and safety. She has published extensively in scientific literature and has been an invited speaker at a wide range of international conferences and an invited member of a number of government committees on road and workplace safety.

Professional Affiliations

- Director of Transport and Road Safety (TARS) Research
- Membership of the board of the Journal of Safety Research and regular reviewing for a number of scientific journals and granting bodies
- Awarded the "Australian College of Road Safety Fellowship" for outstanding research in road safety by the Federal Minister for Infrastructure and Transport Darren Chester



ASSOCIATE PROFESSOR RICHARD WU

BEng, MEng (NTU, Taiwan), PhD (Loughborough, UK), GradRAes

Richard specialises in solving operations and scheduling problems of airlines and airports. These problems include:

- airline operations management
- scheduling
- airport terminal planning
- airport retail development and passenger choice behaviour studies

Professional Affiliations

- Member of Air Transport Research Society
- Member of INFORMS
- Instructor in Airports and Ground Operations, IATA ITDI
- Academic journal board membership:
 - » World Review of Intermodal Transportation Research- Board Member (since 2006)
 - » International Journal of Aviation Management- Australia/Oceania Editor (2007-2013)
 - » Transportation Planning and Technology (since Nov. 2016)
 - » International Journal of Aerospace System Science and Engineering (IJASSE) (since August 2016)
 - » Journal of Transportation Technologies (since 2011)

An aerial photograph of a road network, likely a test track or a new road development, with a yellow text box overlaid on the left side. The roads are dark asphalt with white lane markings, set against a backdrop of dry, brownish-yellow grass and distant mountains under a cloudy sky.

There are strong research synergies in human factors and transport safety research between TARS researchers and academic staff in UNSW Aviation.

Transport and Road Safety (TARS) Research Group

Transport and Road Safety (TARS) Research is a research group within UNSW Aviation dedicated to road and transport safety research. The philosophy of the road and transport safety research focus at TARS is the safe system principle, commonly used in occupational health and safety and adopted by the Australian Transport Council in 2004. This requires a multi-disciplinary approach to road safety research and policy development, where researchers focus on safer roads, safer vehicles, and safer people and their integration into a safe system. TARS research is structured around the essential disciplines needed for an effective

transport and road safety research centre: safety policy and systems, psychology, human factors, engineering and crashworthiness, information technology systems, biomechanics, biostatistics, epidemiology, and social sciences.

There are strong research synergies in human factors and transport safety research between TARS researchers and academic staff in UNSW Aviation. The TARS research group also supervises UNSW Aviation research students depending on the research topic and supervisor involved.

MEET A CURRENT PhD STUDENT



Oleksandra's awards include:

- ✓ HFESA Student Fellowship IEA 2015 by the Human Factors and Ergonomics Society of Australia.
- ✓ Best Student Paper Award 2015 by the Human Factors and Ergonomics Society.
- ✓ Winner of the Early Career and Student SIG Competition, "What do you see as future applications of ergonomics in the next 10 years?" by Human Factors and Ergonomics Society Australia.

PHD STUDENT OLEKSANDRA KRASNOVA

Can you tell us a bit about yourself and why you chose to study with UNSW Aviation to do a research degree?

It is an interesting story of my previous degrees at different universities and particularly how I pursued a PhD. I never thought that I would end up doing a PhD one day, although I had dreamed about it.

I completed the following degrees:

- Bachelor in Education (BEd) and Linguistics, and Master in Education (MEd) and Linguistics in Kirovograd State Teachers' Training University in Ukraine
- Graduate Research School of the National University of Educational Management of the National Academy of Educational Sciences of Ukraine, specialising in Theory and Methodology of Professional Education
- Graduate Research School at Kirovograd Flight Academy of National Aviation University (Ukraine)
- Master of Science in Human Factors (Nottingham, UK)

What is your research about and how do you work with your research supervisors to achieve your goals?

My research is about investigating the utility of cognitive-based training approaches to improve young driver speed management. It is conducted both in a simulated environment, as well as in an instrumented vehicle in the real environment. The project is innovative as it draws upon proven training techniques employed in aviation and adopts them to the road environment. I am particularly thankful to my supervisors who always provide me with plenty of advice, and assist in all the steps of my PhD, which makes the overall journey much easier. I would highlight the importance of working in synergy with your supervisors to achieve your goals. We usually have regular meetings on a weekly basis and I would say this is one of the key aspects of success when doing research. Another important aspect to achieving your goals is to have a vision and to know what you want to achieve and find solutions to do this. And, of course, have a strong desire to achieve your goal!

What are your achievements since you started your PhD?

Since I started my PhD I have had the opportunity to present my research at national and international conferences, publish several papers and have received some awards.

What advice do you have for people who are thinking about pursuing a research degree?

I would highly recommend doing a research degree to anyone who would like to become an expert in the area. You will learn how to solve problems, how to find relevant information, how to work independently and as a member of a team, how to communicate (by writing, by giving presentations, or speaking in public), how to manage your time effectively, and how to prioritise your activities. These are all in addition to other technical skills that you will have based on a specific project. You will also have a chance to invent things that you are passionate about. No doubt it will be incredibly useful no matter what job you will take up after your research degree.

HOW TO APPLY

Graduate Diploma in Aviation Management (5741) and Master of Aviation Management (8741)

Submit an application at applyonline.unsw.edu.au and attach the required supporting documentation such as:

- ✓ CV
- ✓ Evidence of professional Aviation industry experience
- ✓ Academic transcript (applicable to MAvMgmt applicants only)
- ✓ Evidence of completion of an undergraduate degree (applicable to MAvMgmt applicants only)
- ✓ Other documentation specified on the application website

There are two intakes per year:

- ✓ Term 1 (February) – apply by 25 January
- ✓ Term 3 (September) – apply by 31 July

Late applications may be accepted after the closing dates.

NOTE

- ✓ English language requirements also apply, see unsw.edu.au/english-requirements-policy

Master of Philosophy (2475), Master of Science by Research (2905) and Doctor of Philosophy PhD (1900)

1. Find a research area

Before applying for a higher research degree you will need to match your area of interest to our School. You may also consider applying for a scholarship (research.unsw.edu.au/postgraduate-research-scholarships).

2. Find a supervisor and develop a research proposal

Contact a researcher within the School with your CV, academic transcript, details of your research interests including your initial research proposal. You may need to have a few meetings with the potential research supervisor to discuss the suitability of the research to further establish a strong research proposal. If you are having difficulties finding a supervisor, please contact the Postgraduate Research Director.

All applications must be sufficiently detailed so the University can determine if adequate supervision and resources to support your research can be provided. Your research proposal helps make that

determination, and should include the following:

- The title of your research proposal (this must be included in your document)
- A statement of the research problem and its significance
- An outline of the method to be used to analyse the problem
- Details of previous publications and/or research undertaken in your nominated area of interest

Once you have secured the supervisor's agreement to supervise you, you can submit a formal application for admission.

3. Prepare supporting documentation

Required documents include your supervisor's agreement (proof of correspondence), research proposal, CV, academic transcripts and English language test results, documents must be in English or include a certified English translation.

4. Submit your official application online

Once you have secured a supervisor, developed a research proposal, and prepared your supporting documents, you are ready to lodge your application via applyonline.unsw.edu.au/login

If you are applying for the degree without any scholarships:

- **Term 1 (February)**
apply by 30 November
- **Term 2 (June)**
apply by 31 March
- **Term 3 (September)**
apply by 31 July

To be considered for a scholarship, the application due dates are at least six months earlier. The application due dates with scholarship consideration can be found at research.unsw.edu.au/key-dates.

For further Information

Please contact the
UNSW School of Aviation:

School of Aviation
Old Main Building
Second Floor, Room 205
UNSW SYDNEY NSW 2052
Australia

Postgraduate Enquiries
+61 2 9385 5787

Email aviam@unsw.edu.au

Website aviation.unsw.edu.au



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[unswaviation](https://www.instagram.com/unswaviation)



**GROUP
OF EIGHT
AUSTRALIA**

CRICOS Provider Code 00098G

Photography Paul Sadler and UNSW Science Marketing

Compliance: The Education Services for Overseas Students (ESOS) Act 2000 sets out the legal framework governing delivery of education to overseas students studying in Australia on a student visa. UNSW in providing education services to overseas students complies with the ESOS framework and the National Code of Practice for Registration Authorities and providers of Education and Training to Overseas Students 2007 (The National Code). A description of the ESOS Framework can be found at the following link: internationaleducation.gov.au/regulatoryinformation/pages/regulatoryinformation.aspx

Information in this Guide is correct as at March 2017. The university reserves the right to change any degree, admission requirements or other information therein without prior notice. We recommend that you check our website for the most current information before making final selections or enrolling in any courses.

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For further Information

Please contact the
UNSW School of Aviation:

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Old Main Building
Second Floor, Room 205
UNSW SYDNEY NSW 2052
Australia

Postgraduate Enquiries
+61 2 9385 5787

Email aviam@unsw.edu.au

Website aviation.unsw.edu.au



unswschoolofaviation



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CRICOS Provider Code 00098G

Photography Paul Sadler and UNSW Science Marketing

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UNSW
SYDNEY

Australia's
Global
University

UNSW Science Aviation Postgraduate Programs Guide

**HOW FAR CAN OUR
BUSINESS CLASS
TAKE YOU?**



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