Why is an Aviation Management degree unique?

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THE AUSTRALIAN AVIATION industry is a key part of the national economy. Airlines require enormous capital investment, and the industry has a patchy record of return on that capital. Some parts of the industry are highly regulated, while others are highly competitive. Safety and reliability are part of the competitive landscape. Safety failures can be very public, and have severe consequences.

The aviation industry is attractive to graduates, and airlines have the option to hire graduates in business and engineering, and then train them in-house to understand the language and characteristics of aviation. But fresh graduates of business and engineering rarely understand the complexities of aviation specialties, such as human factors and safety management systems. The balancing of available and revenue seat kilometers, assessing the likely impacts of regulatory changes, or planning fleet and crew resources require a deeper understanding of the industry. Rebuilding flight and aircrew schedules which have been severely disrupted by weather or technical failures requires even deeper skills.

This gap in training for the aviation industry led the University of New South Wales to set up the Bachelor of Aviation (Management) almost two decades ago. In parallel to the Bachelor of Aviation (Flying), the management degree provides graduates with detailed knowledge of the key issues in airline management and operations. Aviation graduates are also prepared for airport management, the government regulator CASA and the air traffic management provider Airservices Australia, as well as the Australian Transport Safety Bureau, and business and general aviation companies.

What is unique about these graduates? At UNSW a group of specialist academics partner with aviation industry experts to provide a sound theoretical and practical understanding of the key issues. Academics and industry experts together build the framework of knowledge blending international research with industry best practice. Guided by an Industry Advisory Committee comprised of senior aviation industry leaders, the degree builds graduate attributes that are keenly sought by aviation employers.

Safety syllabi deliver human factors fundamentals as a basis for safety management systems. This underpins the fundamentals of multi-crew training and operation, situation awareness and fatigue management in aircrew. Civil aviation regulations are a compulsory aspect of management knowledge. The grounding of Tiger airways in 2011 underlines the importance of compliance.

Financing aircraft and airport development is another specialist topic. Large capital projects require specialist analysis for decision making. UNSW students are exposed to the tools for financial decision making as well the application for fleet planning. The basic economic models of supply and demand are put into context with examples from airline history, allowing a thorough understanding passenger and freight economics.

Aircare, flight and aircraft scheduling, emergency planning, punctuality and operations control all play a major role in providing efficient operations, while security must be continuously improved. Other areas of importance include air traffic management, the structure of regulation and security legislation, and the roles of regional airlines and general aviation.

Graduate destinations for UNSW BAv graduates include Qantas, Virgin Australia, Tiger, and Jetstar, as well as Regional Express, CASA, ATSB, Airservices Australia, and the Australian Department of Transport. International airline employers include Cathay Pacific Airways, Etihad Airways, Emirates Airlines, Qatar Airways, Singapore Airlines, Merpati Nusantara, Garuda, and Malaysian Airlines, Dragonair and Hong Kong Airlines.

Positions include middle and senior management roles in cargo and passenger network revenue planning, crew scheduling, pattern analysis, supply chain management, purchasing, air traffic control, flight operations despatch, slot coordination, safety and quality assurance, ground and flight safety, cabin safety, fatigue risk management, safety management system coordination and security.

Working in a multi-national, multi-ethnic, multi-faith environment where the “rules of the game” sometimes change daily leads to ongoing challenges requiring excellent judgement and timely action. Such a job is not for everyone, but for those who love aviation this degree provides an effective springboard to an exciting career.

UNSW Bachelor of Aviation (Management) graduates now number over 500, with a large percentage employed within the industry, and the alumni network is expanding rapidly worldwide.