

**The University of New South Wales
School of Aviation**

AVIA5005 – Airline Operational Management

2017 Course Outline

Course Staff

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About the Author

The initial course notes were prepared by Rodger Robertson in consultation with specialists within the industry. Revision was completed in 2007/2010, and the notes have been extensively updated in 2015 by Damien Wallace, (who recently retired from Qantas after a career that included a time managing the airline's integrated operations centre) in collaboration with Dr Ian Douglas from the School of Aviation. In some cases older examples and earlier notes have been retained as these still offer a useful and relevant insight into the development of the airline business and the aviation industry.

Aviation Operational Management in the MScTech (Aviation)/MAvMgmt combines the features of several courses from undergraduate Aviation degree, offering a higher level perspective on the major aspects of Airline Management in one subject.

This is a constantly evolving area of Airline Management, and one where automation plays a critical role. While examples of various software tools and reports are included, the more valuable learning comes from understanding the underlying decisions, actions, and process changes that feed into the software tools.

Course Information

Aims

This course is meant to accompany its sister course of AVIA5009 Airline Corporate Management. That course is also provided in the MScTech (Aviation)/MAvMgmt program. It is not a prerequisite for this course but the two subjects are complementary. The introduction unit (Unit 1) of this course provides a brief overview of the corporate side of airline management, and its relationship to the following Units.

Airline operations are defined as the functional areas which are directly associated with the operations of the aircraft- or at least in the provision of services for the aircraft's operation. There is much overlap between the management of the "corporate" aspects

of the airline and the operational aspects. This occurs mainly in the planning processes such as fleet planning, schedule planning, and strategic planning (including business plans and annual budgets). These important processes will be covered in this course for the functional areas that play major roles in the airline. Engineering and maintenance, airline airport operations, crew resource provision and inflight service functions are specifically covered in some detail.

As well as those important functional areas, other airline processes are covered which play important roles in the operations. These include emergency planning, operations control, and punctuality management. The more recent interest in outsourcing in airline management is looked at as airlines pursue the reduction in costs and head towards the “virtual” airline.

There is a Unit on Environmental matters in the airline and also a chapter on Freight. Perhaps the latter is a little misplaced but those of you who do both the courses on Airline management should have some exposure to the Freight part of the airline.

General management techniques apply to many of these functional areas. Planning, budgeting, staff and equipment rostering, and disruption management are generic but in this course are discussed from the airline’s view. The management of aircraft, crew (both technical and cabin service crew), and inflight service functions are complex, especially the impact each has on the other. This may not be unique but certainly requires some knowledge of the history of the industry. The impact of outsourcing of services has put the traditional approaches under the microscope, and with varied results.

Learning Outcomes

On completion of this course students should be able to:

- Have a good understanding of the main airline operational management tasks.
- Be able to plan small operations crewing requirements and similar check in shifts and rosters.
- Be familiar with emergency planning and maintenance planning theory.
- Be familiar with the processes and airline industry experience with outsourcing.
- Have an understanding of key issues in inflight service management.

Location

This course runs for the duration of Semester 1.

The course is delivered electronically via UNSW Moodle, on a distance-learning basis. The core component of delivery is the course manual. Course manuals are written by experts from various backgrounds within the aviation industry and a cross section of disciplines at UNSW. Each manual has been designed to guide the learner in the most effective and efficient way. As new concepts are introduced, practical exercises are provided so you can develop skills, which can be applied immediately in your workplace. Students are able to study at their own pace, in accordance with their

particular work schedules and locations. Academic review and feedback is delivered via e-mail or Moodle.

Learning and Teaching Philosophy

This course aims to provide a strong background and understanding of the core airline operational management tasks. Students are encouraged to link the theory presented to real world material.

Internet

Online content and study materials can be accessed via UNSW Moodle;
<http://moodle.telt.unsw.edu.au>

Course Schedule

Units should be done in the corresponding course week, ie the course is a 12 week course with one Unit being achieved in each week.

Unit 1	Introduction to the Airline Operations
Unit 2	Operations Control
Unit 3	Delay and Punctuality
Unit 4	Airports
Unit 5	Engineering and Maintenance Resources
Unit 6	Outsourcing Management
Unit 7	Environmental Management
Unit 8	Crew Management A
Unit 9	Crew Management B
Unit 10	Emergency Procedures
Unit 11	Freight
Unit 12	Inflight Services

Assessment

The MScTech (Aviation)/MAvMgmt Program’s approach to assessment closely follows that of the Australian Open Learning Program of the Australian Graduate School of Management. At all times assessment is intended to form a component of the learning process and assignments are designed to encourage you to apply what

you learn to your own organization. Assignments will be assessed on the basis of how you apply subject material to gaining new insight into your organization. Written comments will accompany your return assignments and exercises and should provide useful feedback.

Criteria for Assessment

The criteria for assessment of all written work will be:

- Evidence of understanding of the concepts and problems being studied or reviewed.
- Ability to apply solutions in the aviation field to your own areas of experience.
- Ability to write in a concise and simple manner whilst solving complex and difficult issues.
- Be original! Lateral thinking and wider reading produce better marks.
- An electronic 'cover sheet sign off' in Moodle is required to submit assignments.
- Prepare your report as you would to a Committee or Board. This is an academic program, so thorough and accurate referencing is needed, but keep the writing style more business-like, rather than writing an essay.
- The referencing standard required is Harvard. (Douglas, 2015) or 'as noted in Douglas (2015)'. Please do not use footnotes for referencing.

Final Course Results

All final course results are reviewed and scaled by the School and the Faculty. The final approved course results will be officially released via zMail and myUNSW in July (S1) and December (S2). Students should not assume their final official marks directly from each assessment task even after the marks for all assessments are received.

Academic Honesty and Plagiarism

Plagiarism is the presentation of the thoughts or work of another as one's own¹. Examples include:

- direct duplication of the thoughts or work of another, including by copying work, or knowingly permitting it to be copied. This includes copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and,
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.²

Submitting an assessment item that has already been submitted for academic credit elsewhere may also be considered plagiarism. All work submitted for this subject is uploaded to 'Turn it in'. Students have access to the report generated by their work, and are **STRONGLY** encouraged to correct plagiarism issues before the submission deadline. Plagiarism is the most common cause of failure in this subject.

The inclusion of the thoughts or work of another with attribution (referencing) appropriate to the academic discipline does not amount to plagiarism and when done correctly represents good academic writing.

Students are reminded of their Rights and Responsibilities in respect of plagiarism, as set out in the University Undergraduate and Postgraduate Handbooks, and are encouraged to seek advice from academic staff whenever necessary to ensure they avoid plagiarism in all its forms.

The Learning Centre website is the central University online resource for staff and student information on plagiarism and academic honesty. It can be located at:

<https://student.unsw.edu.au/plagiarism>

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

1. correct referencing practices – Harvard/APA used in this course;
2. paraphrasing, summarising, essay writing, and time management;
3. appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

¹ Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle.

² Adapted with kind permission from the University of Melbourne.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

Resources for students

Required Texts

There are no formal texts for this course. The course material supplied covers the essential aspects.

Shaw, S, (2011) Airline Marketing and Management 7th ed., Farnham: Ashgate Publishing Ltd, is recommended reading – and is available as an e-book on the UNSW Library website

Continual Course Improvement

Periodically, student evaluative feedback on the course is gathered, using among other means, UNSW's Course and Teaching Evaluation and Improvement (CATEI) Process. Student feedback is taken seriously, and continual improvements are made to the course based in part on such feedback. Significant changes to the course will be communicated to subsequent cohorts of students taking the course

Administrative Matters

The course will be administered through UNSW Moodle. You need to enter your student id and zPass to gain access. The Master course admin Officer at aviam@unsw.edu.au will assist in this process.

The course material is located in Moodle, along with additional material that the author puts there.

Your assignments should be uploaded on to the website and all questions directed through the mail system. The Facilitator will use the course site to make announcements and to mark the assignments and answer questions.

A good business practice to adopt when you submit assignments or any attachments is to name the file with a unique name that links to the student. This means it is best to include your name, the subject number and the assignment number- i.e. Smith5005ass3.doc. Please do not send a file labelled Resourcemngmntassign1.doc. When files are not identified by name it is more difficult to manage the processes. Please ensure similar information (name, subject, etc) is on the inside of the document. Adding a 'footer' can be a useful approach.

Ideally submit files as PDFs. This seems to reduce upload problems – particularly where there are charts or tables included. Avoid unnecessary pictures and illustrations – anything included should be directly relevant to the report.

Students should be familiar with the information contained in <https://my.unsw.edu.au> regarding expectation of students, enrolment, fees and other policies that affect you. Also students must be familiar with the information provided in the Postgraduate Aviation Student Guide. This essential document can be obtained from the School of Aviation and is available on UNSW Moodle. Please contact Jamie Lim at aviam@unsw.edu.au for any administrative enquiries.

Acknowledgements

Acknowledgment is made to the Operations Control, Crew Management, Engineering and Maintenance, and Airport Administration departments at Qantas. Several industry specialists and managers have contributed to the course materials. These include David Forsyth who continues to take on important roles in the Australian aviation sector, and John Gilchrist who had wide experience in operations at Qantas. Deb Cybula assisted in rewriting the Crew Management Units. All Units were reviewed in May of 2010 and some minor changes made to the material where new information was applicable. Much of this material remains in place following the 2015 revisions and updates.

Their contribution to the formal material and to advice on the content of the course has been invaluable.