Course Staff

The course facilitator is Rodger Robertson of the School of Aviation. Rodger can be contacted via e-mail at r.robertson@unsw.edu.au.

About the Author

Aviation Operational Management has been adapted for the MScTech (Aviation) course from the Bachelor of Aviation program. It combines the features of several courses from this degree, linking all the major aspects of Airline Management into this one course. Rodger Robertson has prepared the course, in consultation with specialists within the industry.

Rodger Robertson has a Bachelor of Science Degree with First Class honours in Statistics and a Master of Commerce Degree in Econometrics, both from The University of New South Wales. He worked at Qantas from 1965 to 1994 in a various capacities. In the first several years as an internal management consultant using operations research and statistical techniques to solve business problems throughout the airline. The areas studied included most of the airline’s operational areas and several corporate problems. After joining the company’s Planning Division in 1978 rose to be the leader, reporting to the Managing Director, of this influential group, for several years till his departure in 1994. He now is an industry consultant and has designed and lectured several courses in the Bachelor of Aviation program, and postgraduate courses at the University of New South Wales.

This course material has been updated in 2007 by several authors who are either in the field or have just left their senior post. My thanks go to David Forsyth (ex Executive General manager airline operations at Qantas) and to John Gilchrist who ran the Operations control unit for many years. Also Deb Cybula who is still working for Qantas in several new roles. These people have rewritten the previous material and this has improved and brought the latest developments into this course. In 2010 a review and rewrite of some sections were done and whilst some of the material is from the 1980s an 90s it is still most relevant today and forms the basis of much of the way that airlines manage their operations. Clearly there are also new ways of doing business and these are incorporated

The authors have the view that the development of airline operations management is useful for students but that the future will hold many changes. The industry has never stood still and the students of today will be making the changes of tomorrow!
Course Information

Aims

This course is meant to accompany its sister course of Airline Corporate Management. The latter course is also provided in the MScTech (Aviation) program. It is not a prerequisite for this course but it would be desired. 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 a 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 2.

The course is delivered electronically via UNSW Blackboard, 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 Blackboard.

Learning and Teaching Philosophy

This course aims to provide good background and understanding of the main airline operational management tasks. This is done using airline practitioners and real world material.

Internet

Online content and study materials can be accessed via UNSW Blackboard; http://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.

<table>
<thead>
<tr>
<th>Unit 1</th>
<th>Introduction to the Airline Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 2</td>
<td>Operations Control</td>
</tr>
<tr>
<td>Unit 3</td>
<td>Delay and Punctuality</td>
</tr>
<tr>
<td>Unit 4</td>
<td>Airports</td>
</tr>
<tr>
<td>Unit 5</td>
<td>Engineering and Maintenance Resources</td>
</tr>
<tr>
<td>Unit 6</td>
<td>Outsourcing Management</td>
</tr>
<tr>
<td>Unit 7</td>
<td>Environmental Management</td>
</tr>
</tbody>
</table>
Assessment

The MScTech (Aviation) 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! Imagination and creativeness are rewarded.
- All assignments must have a completed cover sheet attached to the front of your assignment. These will be supplied.
- Prepare your report as you would to a Committee or Board. Report style is the way you would write a report to management body trying to convince them to take some action. It is not an essay.
Academic Honesty and Plagiarism

Plagiarism is the presentation of the thoughts or work of another as one’s own\(^1\). 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.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does not amount to plagiarism.

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:

www.lc.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;
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.

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.

---

\(^1\) 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.
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.

**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 Blackboard. You need to enter your student id and zPass to gain access. The Master course admin Officer at avaim@unsw.edu.au will assist in this process.

The course material is there plus any 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.

I would ask you to adopt a good business practice when you submit assignments or any attachments to me. This is to name the file with a unique name. This means it is best to include your name, the subject number and the assignment number- i.e. Smith5009ass3.doc. Please do not send a file labelled Resourcemgmtassign1.doc as I am likely to get many labelled this way. I usually try to put a date on the label as well. And also please ensure similar information (name, subject, etc) is on the inside of the document. You would not believe that sometimes I get material without this vital info. Again dating things is good practice.

For those of you in Sydney and able to get along to the University there is a somewhat parallel undergraduate course called AVIA3201 Airline Resource Management. It is held on Wednesdays 0900-1100 and 1200-1400. If you wish to attend then either turn up or email me beforehand to check the location and to ascertain that there is a talk that session. As well as some of the authors of this course, there are other guests from industry who come and deliver guest talks to the
Students. If possible it is good to attend you meet some of the authors and get a real feel for the lectures etc. I will advertise the program on the Blackboard website for AVIA5005.

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 Blackboard. Please contact Jamie Lim at jamie.lim@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. Ansett Australia has provided much assistance in the inflight services aspects and airport management.

In 2007 the course material has been revised by several industry specialists and managers. These include David Forsyth and John Gilchrist who are recently retired from Qantas and now working in the industry and on the UNSW’s undergraduate program. Deb Cybula has assisted 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.

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