Course Staff

The lecturer in charge is Dr Ian Douglas of the School of Aviation. Ian can be via e-mail at ian.douglas@unsw.edu.au.

About the Editor/Facilitator

Dr Ian Douglas completed a Doctor of Business Administration researching the impacts of national economic freedom and state-ownership on airline operating margins. He also holds an MBA and a Graduate Certificate in Educational Studies. Ian worked at Qantas from 1977 to 2003, with roles in airports, marketing, alliances, and strategic planning. In 2003 he joined the strategy group of the School of Management at UTS, before moving to the School of Aviation at UNSW in 2007. His aviation consultancy work includes an extensive pricing and revenue management project with Malaysia Airlines, graduate training at Saudia Airlines, a fleet study for Air Bagan, and cargo strategy work with Thai Airways International. Ian was appointed a Commissioner of Australia’s International Air Services Commission in late 2012.

About the Author

The original version of this subject was written by Rodger Robertson. Rodger 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, ultimately leading the Company’s Corporate Planning Division. He now is an industry consultant to a wide range of clients.

Course Information

Aims

The current structure of the global aviation industry dates back to the 1944 Chicago Convention. That convention, by allowing governments to control air traffic rights, established a market for route access. The airline industry has grown to generate over $US750 billion in annual revenues, but has failed to create a sustainably profitable business model. The industry, in aggregate, falls far short of delivering an adequate return on the capital invested, and has delivered only 5 profitable years
since 2000. Early results for 2015 suggest a better year – where the substantial fall in fuel prices has contributed to a fall in operating costs for most carriers.

An objective of this course is to introduce the student to the structure of the aviation industry and to explain how the industry’s history shapes its structure today. This introduction provides a background to the formation of current airline strategies, and provides a context for the study of business model innovation. As with most industries, aviation has a unique set of performance measures and its own jargon and terminology.

The airline industry shares the features of other service industries with absolutely perishable products such as broadcast media. Once the aircraft door closes, an empty seat is valueless, beyond making the adjacent passenger feel more comfortable. For low cost carriers an empty seat is also a lot opportunity for inflight sales of food and amenities. Using revenue management and pricing tools, airlines work to minimise the wastage of seats. A brief outline of the key drivers facing airline corporate management is covered in this course. Particular focus is given to the main revenue drivers, the analysis of costs, and the efforts of management to simultaneously control both revenue and costs.

Each unit of the course is designed to foster closer analysis of individual and specific areas of corporate management, and aims to illustrate the underlying theory with practical and contemporary examples. Airline management teams face highly complex and wide-ranging problems. Airlines require the integration and interrelation of many diverse processes, from fleet management to customer service. Further, the industry is both capital intensive and labour intensive, and faces the dilemma of long-term planning horizons mixed with short-term market shifts.

This course will look at the complexity of the airline business and the inter-relationship between departments of the business. The course then studies individual organisational units and considers how each solves its own problems in the broader firm-context. This approach takes the course through a traditional Airline Business Planning Process where annual plans and longer-term plans are integrated.

Longer-term planning processes look out to future periods to take account of external factors such as environmental regulation, technical innovation and other structural constraints that may only be starting to emerge. Shorter-term planning addresses immediate economic conditions confronting the business and the internal changes required. As each area is studied, students are strongly encouraged to position the course material within contemporary industry issues. These may well evolve as the semester progresses. For those students already employed in the broader aviation business, the detail in this course should provide an opportunity to drill-down into the finer details of the problems and potential solutions. For those outside the industry, the study will encourage cross-industry analysis and adaptive solutions to be developed.

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1 This impact of a firm’s history on its current strategy and its options for future directions is often described as ‘path-dependence’.
This course interrelates with another AVIA course titled Airline Operational Management. The separation between the courses can be seen as a more ‘Head office’ focused approach in this course and more ‘field’ focused approach in the Operational course. In practice the interaction between both is pervasive, and the two aspects engage simultaneously to achieve an airline’s objectives.

The way an airline schedules its network tells us a lot about the airline and its strategies and objectives. Hub-based networks rely on building connecting traffic feed and are a characteristic of full-service network carriers (FSNC). Conversely, point-to-point operations are usually adopted by small regional carriers and low-cost (LCC) airlines. This distinction between LCC and FSNC is becoming blurred. In Asia, Air Asia has built connectivity at its longhaul gateways. In Europe Ryanair and easyJet are actively courting business travellers with more flexible pricing and improved service.

Airline online schedules are displayed in a city pair format, so it is not always easy to establish an airline’s full timetable online. Airline websites offer more than schedule and price information. Investor pages often hold valuable analysis of the company. It is useful to stay aware of airline business news during this course. Newspapers, magazines, and analyst briefings are useful sources of company information. For Australian students the best newspapers are the Financial Review and the Aviation section in The Australian newspaper. All students can access several aviation magazines through the University Library and this is strongly encouraged. Airline Business and Air Transport World are aviation management magazines with broad coverage of the issues, but there are others. Many of the recommended readings from the course are from these sources, so the Library electronic journal databases will be a regular tool used during your studies.

Much of your communication will be via email. Please use your university email address for all formal correspondence. The only way to submit assignments is through the Moodle site. Your marks will appear there and you will be able to access an online copy of your report with a marking rubric and comments. The due dates for assignments are shown on the Moodle site. From time to time I may also post additional material through Moodle – usually as a web link.

When you submit assignments or attachments, please name the file with your name, the subject number, and the assignment number (e.g. Lee5009a3.doc). Please do not send a file labelled assignment1.doc. Also please ensure identification information (name, subject, student number etc) is on the title page of the document. A surprisingly large number of assignments come from Anonymous authors.

*Learning Outcomes*

On completion of this course students should:

- Have a good understanding of the main airline corporate management tasks.
- Have an understanding of airline economics.
- Be able to plan a manual schedule for a small fleet of aircraft.
- Be familiar with fleet planning theory and practice.
- Be familiar with the key airline financial aspects.
• Understand the trade-offs between aircraft utilisation and customer convenience that are addressed when airline schedules are developed.

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 for the program 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. The course notes for this subject are regularly updated and reviewed – but you will find some older material retained. This is usually because it is the best available example of a concept – even if it is not recent.

Learning and Teaching Philosophy

This course aims to provide an integrated background and understanding of the main airline corporate management tasks, with a particular focus on analysis and corporate planning. This is achieved using contemporary examples and exercises.

Internet

Online content and study materials can be accessed via UNSW Moodle; http://telt.unsw.edu.au
Assessment
The Aviation Masters 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 effectively you apply subject material, and your development of new insights into your organization and your understanding. Online marking rubrics and comments will accompany your returned assignments and exercises. These are usually accompanied by broader course-wide feedback. The examination will provide you (and us) with feedback about your understanding of the subject content.

Criteria for Assessment

The criteria for assessment of all written work will be:

- A demonstrated understanding of the aviation concepts and problems studied in a contemporary industry environment.
- The ability to apply and adapt generalised concepts (both in aviation and broader management disciplines) from your studies, and to apply these concepts to problems in your own areas of experience.
- Critical thinking and concise writing that delivers clear and credible analysis of complex issues.
- Outcomes and recommendations that are supported by your analysis, and that reflect originality and openness to realistic alternative solutions.
- Assignments that answer the question
- Appropriate length and detail. Assignments are usually 2000 - 3000 words +/-.
  Your writing needs to be comprehensive enough to cover the material, but brief enough to hold the reader’s interest. The use of tables and dot points to summarise data is strongly encouraged.

THE MOST COMMON REASON FOR FAILING AN ASSIGNMENT IS PLAGIARISM.
Academic Honesty and Plagiarism

Plagiarism is the presentation of the thoughts or work of another as one’s own\(^2\). 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\(^3\).

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.

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\(^2\) Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle.

\(^3\) 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.

Course Content

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

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<thead>
<tr>
<th>Unit</th>
<th>Title</th>
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<tr>
<td>1</td>
<td>Introduction to the Aviation Industry - Past and Present</td>
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<td>2</td>
<td>Aviation Statistics</td>
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<td>3</td>
<td>Airline Economics - Demand</td>
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<td>4</td>
<td>Airline Economics - Costs</td>
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<td>5</td>
<td>Airline Business Planning Process</td>
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<td>6</td>
<td>Schedule Development</td>
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<td>7</td>
<td>Fleet Planning</td>
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<td>8</td>
<td>Forecasting</td>
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<td>Finance</td>
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<td>10</td>
<td>External Relations</td>
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<td>11</td>
<td>Commercial Agreements</td>
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<td>12</td>
<td>Marketing and Distribution</td>
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The 12 units follow the outline above. The unit headings give a reasonable indication of the content of the unit. Units vary slightly in length and in terms of effort. The objective is to cover a lot of ground and get some understanding of many subjects. Sometimes depth suffers a little in achieving the breadth of the subject. Some Unit topics could form subjects in their own right. Do not be too concerned if some Units seem to be too big. Get as much as you can out of it and move on. Reading material is generally labelled “essential” or “reference”. The former is self-explanatory and the latter can be studied in the course or simply kept as a reference for later reading.

The course introduces (in units 1 and 2) the aviation industry and briefly studies its regulatory environment and economic drivers. These two Units have considerable content that forms the basis for the following Units. You may find that you return to these introductory Units throughout the course.

Units 3 and 4 deal with the economic decisions required in the business. Demand side issues are studied in Unit 3. Then the costs of operation and some simple work on profit planning are covered in Unit 4.
Unit 5 addresses the major planning processes for an airline. The approach considers the airline business environment and scenario planning to support a classical development of a strategic business plan and budget. This unit adapts generic strategic management processes to the airline environment.

Units 6 and 7 take in two further major processes in the airline. The development of the airlines schedules is fundamental to operations. Delivering the schedule is the driver of both revenue and expenditure for an airline. In airline planning terms, the development of schedules is a core task, and drives the expenditures and strategies of operational managers. Scheduling is covered in Unit 6 and you should be able to do some simple aircraft scheduling at the end of the unit. For large carriers scheduling is automated, and the schedule is built around constraints including slot availability, airport curfews as well as customer demand. Unit 7 covers the Fleet Planning process. This process will give you an understanding of the evaluation of aircraft in terms of their performance (both cost and physical) and their revenue generation potential. Trade-offs are often required between fleet complexity and the acquisition of ideal aircraft types for particular markets.

Unit 8 discusses forecasting in the airline, with a particular focus on traffic and revenue forecasting.

Unit 9 offers an overview of Airline Finance issues. It is not designed to be an in-depth study of financial management, but rather to identify the special issues which airlines face in a pragmatic way.

Unit 10 studies the airline’s external relations. Engagement with Governments, as well as with important suppliers, alliance partners, and the media shape an airline’s results.

Unit 11 deals with the Globalisation of the industry. The role of Strategic Alliances and Commercial Agreements (both short and long-term), cross-border ownership, and regional trading blocs such as the European Union are considered in this Unit.

Unit 12 is an overview of Airline Marketing. This Unit does not attempt a full study of the marketing function, but addresses the impact of online selling (both web and mobile) on FSNC and LCC business models, and the impact of the move towards the mobile distribution channel.

Each unit includes readings. The readings are offered either as links, or as a separate pdf file.

**Online Resources**

Most of the necessary background reading material can be sourced through the library’s extensive journal databases online. Suggested reading material directs students to useful websites, but self-directed research beyond the recommended
reading is an important part of the learning process. Wider reading adds a variety of opinions, richer content to the subject, and the opportunity to contrast theoretical and practitioner views of the industry.

Instructions for using the databases are available on the UNSW library website [http://library.unsw.edu.au/HowDoI/databases.html](http://library.unsw.edu.au/HowDoI/databases.html) The page includes a direct link to the ‘Sirius’ database homepage. Industry journals Air Transport World and Airline Business can both be accessed using the UNSW Library electronic access.

**Textbooks**

There are no set textbooks for this subject but there are some books that are useful references in airline management.

These are

- Rigas Doganis- Flying Off Course- The Economics of International Aviation. Available as an e-book in the UNSW library
- Alexander Wells- Air Transportation 5ed - 2004. This is a book written from a US perspective.
- Paul Clark  Buying the big Jets 2nd edition 2007
- Introduction to Air Transport Economics 2ed – Bijan Vasigh, Ken Fleming, Thomas Tacker 2013

**Report Writing – IMPORTANT !!!!!!!**

Report writing standards and requirements vary in the University environment and within industry and Government. It is expected that students will be familiar with referencing and basic academic writing. When writing results and producing recommendations, these must be based in your analysis and are most useful when they are action-orientated – that is they should be possible for an airline to implement.


**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. This site can be accessed from http://telt.unsw.edu.au

You then enter your student id and zPass. 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.

For those of you in Sydney and able to get along to the University there is a somewhat parallel undergraduate course called AVIA3101 Airline Management. It is held on Thursdays 1000-1200 and 1300-1500. 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 in that session. There are regular guests from industry who deliver talks to the students.

Students should be familiar with the information contained in https://my.unsw.edu.au regarding expectations of students, assignment submission, examination procedures, equity and diversity and other policies that affect you. A Postgraduate Aviation Student Guide can be obtained from the School of Aviation which is also available on UNSW Moodle. Please contact Jamie Lim at: jamie.lim@unsw.edu.au for any administrative enquiries.

Acknowledgment

Acknowledgment for assistance and material is made to the Finance, Fleet Planning, Commercial Agreements, and Freight departments at Qantas, Boeing Commercial Airplane Company, International Air Services Commission. Also acknowledged is Max Haworth for writing the Finance Unit and Jim Eames for the External Relations Unit. Both Max and Jim had long and distinguished careers at Qantas.

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