Contact us
If you would like further information, please contact Student Administrative Services:

Student Enquiries
Email: sas@adfa.edu.au
Telephone: +61 (02) 6268 6000
Facsimile: +61 (02) 6268 8666
http://sas.unsw.adfa.edu.au

Student Administrative Services
The University of New South Wales Canberra
PO Box 7916
CANBERRA BC ACT 2610
CRICOS Provider Code: 00100G • CAN130170
### Important dates for students in 2013

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Semester 1 commences</td>
<td>4 March</td>
</tr>
<tr>
<td>Last day to add S1 on-campus mode courses</td>
<td>10 March</td>
</tr>
<tr>
<td>Last day to drop S1 courses without financial penalty</td>
<td>31 March</td>
</tr>
<tr>
<td>Provisional exam timetable released for S1</td>
<td>19 April</td>
</tr>
<tr>
<td>Last day to drop S1 courses without academic penalty</td>
<td>26 April</td>
</tr>
<tr>
<td>Last day to report exam clashes for S1</td>
<td>3 May</td>
</tr>
<tr>
<td>S1 mid-semester break</td>
<td>6 – 17 May</td>
</tr>
<tr>
<td>Final exam timetable released for S1</td>
<td>31 May</td>
</tr>
<tr>
<td>Semester 1 ends</td>
<td>14 June</td>
</tr>
<tr>
<td>S1 Study Recess</td>
<td>17 – 21 June</td>
</tr>
<tr>
<td>Examinations</td>
<td>24 June – 5 July</td>
</tr>
<tr>
<td>Mid-year recess</td>
<td>8 – 19 July</td>
</tr>
<tr>
<td>S1 results published in myUNSW</td>
<td>18 July</td>
</tr>
<tr>
<td>Semester 2 commences</td>
<td>22 July</td>
</tr>
<tr>
<td>Last day to add S2 on-campus mode courses</td>
<td>28 July</td>
</tr>
<tr>
<td>ADFA Open Day</td>
<td>31 August</td>
</tr>
<tr>
<td>Last day to drop S2 courses without financial penalty</td>
<td>31 August</td>
</tr>
<tr>
<td>Provisional exam timetable released for S2</td>
<td>6 September</td>
</tr>
<tr>
<td>Last day to drop S2 courses without academic penalty</td>
<td>13 September</td>
</tr>
<tr>
<td>Last day to report exam clashes for S2</td>
<td>20 September</td>
</tr>
<tr>
<td>S2 mid-semester break</td>
<td>28 Sep13 – 6 Oct13</td>
</tr>
<tr>
<td>Final exam timetable released for S2</td>
<td>11 October</td>
</tr>
<tr>
<td>Semester 2 ends</td>
<td>25 October</td>
</tr>
<tr>
<td>S2 Study Recess</td>
<td>28 October – 1 November</td>
</tr>
<tr>
<td>Examinations</td>
<td>4 – 15 November</td>
</tr>
<tr>
<td>S2 results published in myUNSW</td>
<td>28 November</td>
</tr>
<tr>
<td>Conferring of degrees ceremony</td>
<td>11 December</td>
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### Important dates for students in 2014

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Semester 1 commences</td>
<td>3 March</td>
</tr>
<tr>
<td>Semester 1 break</td>
<td>5 – 16 May</td>
</tr>
<tr>
<td>Semester 1 ends</td>
<td>13 June</td>
</tr>
<tr>
<td>Study Period</td>
<td>16 – 20 June</td>
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<tr>
<td>Examinations</td>
<td>23 June</td>
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<tr>
<td>Mid-year recess</td>
<td>7 – 18 July</td>
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<tr>
<td>Semester 2 commences</td>
<td>21 July</td>
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<tr>
<td>Semester 2 break</td>
<td>29 September – 3 October</td>
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<tr>
<td>Semester 2 ends</td>
<td>24 October</td>
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<tr>
<td>Study Period</td>
<td>27 – 31 October</td>
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<tr>
<td>Examinations</td>
<td>3 November</td>
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<tr>
<td>Examinations end</td>
<td>14 November</td>
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<tr>
<td>Conferring of degrees ceremony</td>
<td>10 December</td>
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### Public Holidays and compensations

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Canberra Day (Monday lost)</td>
<td>11 March</td>
</tr>
<tr>
<td>Good Friday (Friday lost)</td>
<td>29 March</td>
</tr>
<tr>
<td>Easter Monday (Tuesday lost)</td>
<td>1 April</td>
</tr>
<tr>
<td>(Monday timetable on Tuesday 2 April)</td>
<td></td>
</tr>
<tr>
<td>ANZAC Day (Thursday lost)</td>
<td>25 April</td>
</tr>
<tr>
<td>Queen's Birthday (Mon timetable on Wed 12 Jun) (Wed lost)</td>
<td>10 June</td>
</tr>
<tr>
<td>Family and Community Day (Monday lost)</td>
<td>30 September</td>
</tr>
<tr>
<td>Labour Day (Monday timetable on Tuesday 8 October)</td>
<td>7 October</td>
</tr>
</tbody>
</table>
Contacts

Schools

School of Business (BUS)
Building 27, Room 219
Ph: +61 2 6268 8074
Fax: +61 2 6268 8450
Email: pgcoord.bus@adfa.edu.au
http://bus.unsw.adfa.edu.au

School of Engineering and Information Technology (SEIT)
Building 17, Level 2
Ph: +61 2 6268 8348
Fax: +61 2 6268 8276
Email: pgc.seit@adfa.edu.au
http://seit.unsw.adfa.edu.au

School of Humanities and Social Sciences (HASS)
Building 29, HASS Shopfront, Ground Floor
Ph: +61 2 6268 8867
Fax: +61 2 6268 8879
Email: hasspgcoursework@adfa.edu.au
http://hass.unsw.adfa.edu.au

School of Physical, Environmental and Mathematical Sciences (PEMS)
PEMS South, Building 26, Room 102
Ph: +61 2 6268 8801
Fax: +61 2 6268 8786
Email: info.pems@adfa.edu.au
http://pems.unsw.adfa.edu.au

Academic Support Units

Student Administrative Services
Building 1 Level 2
Ph: +61 2 6268 6000
Email: sas@adfa.edu.au
http://sas.unsw.adfa.edu.au

UNSW Canberra Academy Library
Building 13
Ph: +61 2 6268 8882
Email: library@adfa.edu.au
http://lib.unsw.adfa.edu.au

Information, Communication and Technology Services (ICTS)
Building 14
Helpdesk hours are from 8:00 am to 5:00 pm on weekdays.
Ph: +61 2 6268 8140
Email: helpdesk@adfa.edu.au
Heat self-service help requests:
Tip sheets:

Academic Language and Learning Unit (ALL)
Building 36, Room 102
Ph: +61 2 6268 8797
Email: knowALL@adfa.edu.au
https://gateway.unsw.adfa.edu.au/iteaching/iall

Creative Media Unit (CMU)
Building 13, Lower Ground Floor
Ph: +61 2 6868 8503
Email: cmu@adfa.edu.au
Preface

The information in this booklet may be amended without notice by UNSW Canberra. Any updates will be maintained on the electronic copy available via the Student Gateway, and the Version number and date of this booklet updated accordingly.

For the most current information, or to find information about courses offered by other faculties of UNSW, please see the UNSW Online Handbook: www.handbook.unsw.edu.au

The University of New South Wales at the Australian Defence Force Academy (UNSW Canberra) is a registered ACT Provider under ESOS Act 2000 - CRICOS Provider Code: 00100G.

The ADFA Badge

The symbology of the Australian Defence Force Academy Badge is as follows:

The Crown surmounting the Shield
Allegiance to Crown and Country

The Commonwealth
Star Australia
Three-sided Shield
enclosing the Single-Service Colours Joint Service nature of the Australian Defence Force Academy

Navy blue colouring
Royal Australian Navy

Red colouring
Australian Army

Light blue colouring
Royal Australian Air Force

Gauntlet and Sword covering the UNSW Book of Knowledge
The Military/Academic bond

The motto
‘To Lead, To Excel’

The UNSW Arms

Arms of THE UNIVERSITY OF NEW SOUTH WALES

Granted by the College of Heralds, London, 3 March 1952. In 1994 the University title was added to the Arms to create the University Symbol shown.

Heraldic Description of the Arms

Argent on a Cross Gules a Lion passant guardant between four Mullets of eight points Or a Chief Sable charged with an open Book proper thereon the word SCIENTIA in letters also Sable.

The lion and the four stars of the Southern Cross on the Cross of St George have reference to the State of New South Wales which brought the University into being; the open book with SCIENTIA across its page reminds us of its original purpose. Beneath the shield is the motto ‘Manu et Mente’ (‘with hand and mind’), which was the motto of the UNSW Sydney Technical College, from which the University has developed. The motto is not an integral part of the Grant of Arms and could be changed at will; but it was the opinion of the University Council that the relationship with the parent institution should in some way be recorded.
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Essential Information

Student Gateway
A starting point for finding information about your studies.
https://gateway.unsw.adfa.edu.au

myUNSW
An essential online portal for enrolment and academic records.
www.my.unsw.edu.au

Timetable Information
Information on current course and exam timetables.
https://gateway.unsw.adfa.edu.au/isas/current_students/timetable

Special Consideration
If you believe your studies have suffered due to misadventure you may be eligible to receive Special Consideration.
https://gateway.unsw.adfa.edu.au/isas/current_students/special_consideration

Permission to Withdraw from a Course without Penalty
https://my.unsw.edu.au/student/atoz/CourseChanges.html

Review of Results
Students may make an application for the review of a result for any of their assessment.
https://my.unsw.edu.au/student/academiclife/assessment/Results.html

Academic Standing Rules

Credit for Previous Studies
If you have completed tertiary studies at a recognised tertiary institution, you may be able to gain credit towards your UNSW Canberra degree.
https://gateway.unsw.adfa.edu.au/isas/current_students/forms/credit.html
https://my.unsw.edu.au/student/research/PGCourseworkCreditTransfer.html

Program (Study) Leave
If you need to take a break from your studies, you can apply for Program Leave.
https://gateway.unsw.adfa.edu.au/isas/current_students/forms/leave.html

Student Forms
Most administrative processes require a student to complete and lodge a form.
https://gateway.unsw.adfa.edu.au/isas/current_students/forms/pgforms.html

Prizes and Awards
www.students.adfa.edu.au/student/prizes

Student Conduct Policy and Procedure
Student Complaint Policy and Procedure

www.policy.unsw.edu.au/policy/Student_Complaint_Policy

Student Misconduct Procedures

www.policy.unsw.edu.au/procedure/studentmisconduct.pdf

Graduation

For information on the 2013 graduation ceremony.

Assessment Policy

This policy outlines the University’s commitment to the design and delivery of assessment that facilitates achieving the specified learning outcomes of courses and programs. It enables the development of rules and procedures that facilitate the management of student assessment and related activities. The policy specifies minimum requirements for design and delivery of assessments. It does not constrain the development of alternative or additional forms of effective assessment, provided such assessments are consistent with the principles stated in this policy.

https://my.unsw.edu.au/student/academiclife/assessment/AssessmentatUNSW

Equity and Equal Opportunity (EEO)

Under the Federal Racial Discrimination Act (1975) and Sex Discrimination Act (1984), Disability Discrimination Act (1992) and the New South Wales Anti-Discrimination Act (1977), the University is required not to discriminate against students or prospective students on the grounds of age; sex; marital status; pregnancy; race (including nationality, descent, ethnic, ethno-religious or national origin or immigration); colour; sexuality; religious or political affiliation; views or beliefs; transgender or transsexuality; or disability. Under The University of New South Wales Act (1989), the University declares that it will not discriminate on the grounds of religious or political affiliations, views or beliefs.

As well as recognising its statutory obligations as listed, the University will eliminate discrimination on any grounds which it deems to constitute disadvantage. The University is committed to providing a place to study free from harassment and discrimination, and one in which every student is encouraged to work towards her/his maximum potential. The University further commits itself to course design, curriculum content, classroom environment, assessment procedures and other aspects of campus life which will provide equality of educational opportunity to all students.

The University will encourage the enrolment of students who belong to disadvantaged groups through programs such as the ACCESS Scheme.

For further details visit:

https://gateway.unsw.adfa.edu.au/iadmin/iequity
Occupational Health and Safety Policy (OH&S)

All students must comply with all legislation and all relevant Defence and/or UNSW Canberra policies, procedures and instructions such as:

- complying with risk mitigation strategies to eliminate or control hazards;
- taking action to avoid, eliminate or minimise hazards;
- reporting all hazards, accidents, incidents and dangerous occurrences in accordance with relevant Defence and UNSW Canberra policies and procedures, and statutory requirements;
- making proper use of all safety devices and personal protective equipment;
- not creating or increasing a risk to the health and safety of themselves or any other any person at the workplace;
- seeking information or advice regarding hazards, risk controls and procedures, where necessary, before carrying out new or unfamiliar work;
- being familiar with and following emergency and evacuation procedures; and
- being familiar with the location of first aid kits, emergency control personnel and emergency equipment, and if appropriately trained, using the emergency equipment.
Getting Help

Who does what?

There are many sources of academic and administrative advice and assistance available to students at UNSW Canberra. Initial points of contact include:

- Student Administrative Services (SAS)
- School Postgraduate Coordinators
- School Administration Offices
- Course Convenors - lecturers and tutors
- Creative Media Unit (CMU)
- Academic Language and Learning Unit (ALL)
- Information Communication and Technology Services (ICTS)
- Academy Library

Student Administrative Services

SAS is responsible for a number of general academic administrative services. Students should seek advice at SAS for matters relating to:

- Admission to programs
- Credit from previous study
- Coordinating enrolment/re-enrolment advisory sessions
- Seeking advice about your program of study
- Enrolment advice - adding or dropping courses
- Program Transfer requests
- Program (Study) Leave requests
- Special Consideration
- Coordination of class timetabling
- Release of end-of-semester results
- Coordination of graduation/conferral ceremonies
- Advice on any UNSW policy or procedure

School Postgraduate Coordinators

Postgraduate Coordinators are members of academic staff delegated by their Head of School to advise students on matters requiring academic knowledge and judgment.

Talk to the Postgraduate Coordinator regarding:

- The nature and content of specialisations and courses
- Approval of enrolment variations
- Assessment and approval of requests for program transfers, program leave, cross-institutional study and concurrent enrolment
- Determination and approval of credit for students who have undertaken studies at any university study at postgraduate level
- Advice on assessment and academic standing policies and practices related to the postgraduate programs
- Matters of special consideration – advice on intensity of enrolment when study is interrupted by illness or other personal difficulties
School Administration Offices

Each School has its own administration office located close to staff and the teaching areas. School Administration staff are responsible for the support of academic staff and students within the School.

Students should seek advice at the School Administration Offices or with the School Student Administrative Officer for matters relating to:

- General enquiries for staff and courses taught within the School
- Handling of assessment items

Course Convenors

Convenors are responsible for the administration of a course. Responsibilities include the coordination of the academic staff teaching and/or marking in the course, the determination of the assessment, preparation and distribution of course handouts, and the determination of the provisional final mark for students enrolled in the course. The course convenor, or their nominee, also acts as a referee who must be available to resolve queries at the time of any examination in the course.

Lecturers and tutors are available by arrangement outside regular class times to assist students with their studies.

Information regarding individual contact arrangements is available in the course outline.
Glossary of Terms and Acronyms

Academic Standing: Is an indication of your current progress toward completion of your Program. It is calculated at the end of each semester and is based on the proportion of load passed together with your Academic Standing at the end of the previous semester. Academic Standing is calculated at the career level (i.e. Undergraduate/Postgraduate), not at the program level. See
https://my.unsw.edu.au/student/research/PGCourseworkCreditTransfer.html

AD(E): The current Associate Dean (Education) is Associate Professor David Blazer from the School of Humanities and Social Science.

ADFAPASS: The password that gains access to the ADFA student email, and other ADFA facilities.

Advanced Standing: See Credit.

ALL: Academic Language and Learning Unit (see Support Services).

Assessment: The process of evaluating learning outcomes, as reflected in the quality of a student’s submitted assignments, examination responses and other kinds of assessment tasks, relative to the standard expected.

Core course: A course which is a compulsory requirement of a specialisation.

Course: A unit of instruction approved by the University as being a discrete part of the requirements for a program offered by the University. It is identified by a course code.

Course Catalogue: This is the listing of courses offered by UNSW Canberra. They are listed by the course alpha code for each School in the back of this booklet.

Course Authority: Is responsible to the Faculty Assessment Review Group for the assessment in a course. A course authority is normally the head of the school in which the course is taught. Heads of School normally delegate their authority for academic decisions to the relevant School Coordinators, such as the Postgraduate Coordinator.

Course Convenor: Is responsible for the administration of a course. Responsibilities include the coordination of the academic staff teaching and/or marking in the course, the determination of the assessment, preparation and distribution of course hand-outs, and the determination of the provisional final mark for students enrolled in the course. The course convenor, or their nominee, also acts as a referee who must be available to resolve queries at the time of any examination in the course.

Course Outlines: Documents available via Student Gateway that list the details of each course.

Credit: is recognition of prior postgraduate study in a university. A student who had completed previous university studies at UNSW Canberra or another recognised university may be eligible to receive units of credit (sometimes called advanced standing) towards their current program. This effectively means the student will be required to complete fewer courses to complete their program. See:
https://my.unsw.edu.au/student/research/PGCourseworkCreditTransfer.html

Discipline: An area of academic study.

Exemption: If a student has work experience which is judged to be equivalent to the teaching offered within a core course, they may be exempted from studying this core course, provided that they study another alternative course relevant to their program. This alternative course will be selected in negotiation with the PG Coordinator. Units of credit are not granted for an exemption. Students who have completed formal postgraduate course work should apply for ‘credit’ – see above.

Faculty Regulations: These standardised regulations apply to all postgraduate coursework students. These should be read in conjunction with the academic rules and program information identified for your degree.

FSEO: Faculty Students Ethics Officer – see AD(E).

HPW: Hours Per Week – the number of class contact hours for a course per week.
Leave of Absence: Once a student has completed at least one full-time (or equivalent) semester of study, Leave of Absence (Program Leave) may be granted for a period of up to one year. Only in exceptional circumstances will a student be granted more than a total of two semesters of leave. Students who are granted Program Leave do not have access to university resources and services (such as Academy Library and email services) during their leave of absence.

MOODLE: This is the UNSW online learning management system. You can access online components of your courses and various support services.

myUNSW: An essential online gateway where students can enrol in courses, view results and update personal information. Access to this service requires a ZPASS. Visit: www.my.unsw.edu.au

Postgraduate (PG): At UNSW Canberra, a postgraduate student will be studying a Graduate Certificate, Graduate Diploma, Masters or PhD.

Postgraduate Coordinator: Postgraduate Coordinators are members of academic staff delegated by their Head of School to advise students on matters requiring academic knowledge and judgment.

Program: An approved path of study leading to an award of the university. A student is admitted to a program, and on successful completion of all program requirements is awarded the relevant degree.

Program Authority: For postgraduate studies, this person is the postgraduate coordinator.

Recognised Tertiary Institution: A tertiary institution which is equal in quality and services to UNSW. Usually a Course Authority will assess if an external institution is a recognised tertiary institution in relation to a request for credit.

Registrar’s Nominee: At UNSW Canberra, this person is the Manager of Student Administrative Services.

Stream: Also known as a specialisation in postgraduate degrees. It is an area of concentration defined by a group of courses which must be completed.

Units of Credit (UOC): The University of New South Wales operates a uniform unit of credit system for all of its programs. Under this system each standard full-time year of a degree program will accrue 48 units of credit, i.e. 24 units of credit per Semester. As a guide, 1 unit of credit equates to approximately 25-30 hours of total student workload per Semester (including lectures, tutorials, labs, private study and examinations).

UNSW: University of New South Wales.

UNSW Canberra: The University of New South Wales Canberra campus at the Australian Defence Force Academy.

WAM: Weighted Average Mark – This is calculated by multiplying the mark obtained for each relevant result by the units of credit of the particular course, adding up the products and dividing by the total number of units of credit for the relevant courses. A ‘Term WAM’ is calculated for relevant results in a Semester, and a separate cumulative WAM is calculated for relevant results over the student’s entire program.

ZMail: Kensington campus email which is required if your course is being delivered via MOODLE. Moodle announcements are sent via email to your Zmail account (https://zmail.unsw.edu.au), Students will need to create a forwarding rule from this email (and their ADFA email if students do not wish to use it as their main email account) to their preferred email account (which can be work email or a private email address).

ZPASS: The password that permits access to myUNSW. This web portal will give you access to undertake and change your enrolment, confirm your enrolment details and grades, and the ability to change contact details.
Course Offerings and Timetable Information

How do I find the latest course information?

The UNSW Online Handbook is automatically updated for any late changes to course offerings, timetable changes or lecturer information.

Add a favourite to this web link
www.handbook.unsw.edu.au/2013
or access the Online Handbook from the myUNSW homepage.

The easiest way to search the Online Handbook is to:
1. Click on “Postgraduate Study”;
2. In the left side panel – click on search “Programs by Faculty”;
3. Select “UNSW Canberra at ADFA”;
4. Select your program;
5. The “Program Description” will identify the degree and its majors and courses;
6. If you wish to search for other courses – go to the left panel and click on “Courses A-Z”;
7. All UNSW Canberra courses are coded with a Z prefix.

How do I find the semester course offerings?

A complete table-format list of all Postgraduate Course offerings for the year is available from the UNSW Canberra Student Gateway website, see

Course offering information is also available via the “Further Information: See Class Timetable” link on the Online Handbook for each course.

How do I find my class room?

Your timetable details will be listed, e.g. Lecture Theatre North 12 (Z-32-LT12)

This coding means: Z = ADFA campus;
32 = Building 32; LT = Lecture Theatre 12

For further information about room locations see
www.unsw.adfa.edu.au/student/timetables/index

See the inside back cover of this guide for a copy of the ADFA campus map.

How do I find my timetable information?

Each student has an individual timetable based on their enrolment selection through their myUNSW account.

Course timetable information is available via the Online Handbook.

When you select a course on the Online Handbook, click on “Further Information: See Class Timetable” in the course header. This link will provide you with:
- class time
- class activities, e.g. tutorials or lab classes
- room and venue details, and
- lecturer name.

How do I access future semester information?

Course offering information for the following year is published on the UNSW Canberra Student Gateway in October.

Course offerings and timetable information are also generally available via the UNSW Online Handbook:

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>mid October</td>
<td>1st week of May</td>
</tr>
</tbody>
</table>
Postgraduate Programs

Understanding your UNSW Canberra degree

There are various sets of rules that you should understand before enrolling in your courses. If you require assistance understanding these rules, please contact Student Administrative Services or the relevant school. This information applies to students who commence their study in 2013. Continuing students should refer to the handbook from the year they commenced study for their degree rules. New or revised courses added to current degree rules are applicable to students who commenced prior to 2013.

Faculty regulations for postgraduate study via coursework

These regulations apply to all postgraduate coursework degrees and are to be used in conjunction with Academic Rules and Program Information, which appear in the following section. All rules in this Handbook apply to each student who enters a postgraduate program in 2013. The rules remain applicable until the student exits their program, either by discontinuation or graduation. Students who entered a program in another year should consult the rules and regulations for that year.

For definitions of specific terms, please consult the Glossary within this handbook.

1. Meeting degree requirements
   1.1 To be eligible to graduate, a student must comply with Faculty Regulations, Academic Rules and Program/Stream Rules.
   1.2 Every student enrolled in a coursework program must complete courses as part of their degree. The requirements of a course will be outlined by its course convenor.
   1.3 A student may not enrol in a course if they have not met the specified prerequisites.
   1.4 Each course completed or granted as credit towards a program may be counted towards only one specialisation in that program.

2. Limitation on enrolment each semester
   2.1 In any session, a student cannot enrol in more than 24 UOC without the approval of the Registrar’s Nominee (Manager, Student Administrative Services).

3. Study required per UOC
   3.1 25-30 hours of work, including face-to-face teaching sessions and private study time, is expected for 1 UOC per session (e.g. 150-180 hours of study is required for a 6 UOC course).

Academic Rules

There are three sets of degree rules: Master, Graduate Diploma and Graduate Certificate. Your studies are bound by the rules of the relevant degree.

Program Information

These rules give a general overview of which courses a student must study in order to graduate. Some Program Rules detail specific courses while others, such as program rules for Masters programs, are guidelines used in conjunction with Stream/Specialisation rules.

Specialisation (Stream) Rules

These rules detail courses a student must complete in order to graduate under a specific stream. In most cases, students must understand these rules before enrolling to ensure the courses they complete will count towards their degree.

Not all postgraduate coursework degrees have Stream/Specialisation (Stream) rules.
4. Credit Cancellation Period

4.1 No units of credit shall count towards any award at postgraduate level if ten or more years have elapsed since a student accumulated the units of credit.

5. Multiple enrolments

5.1 No person shall be permitted to enrol in a course as part of an UNSW Canberra program while simultaneously being enrolled in another program at any tertiary institution without the approval of the relevant Head/s of School.

5.2 The Registrar’s Nominee (Manager, Student Administrative Services) may suspend any student who is found to be enrolled in multiple programs without approval.

6. Credit for previous study

6.1 Credit transfer to a Maximum of 50% of UNSW Canberra program requirements may be granted for completed or partially completed postgraduate awards in the same or related discipline from UNSW or another recognised tertiary institution, as follows:

6.1.1 In the same or related discipline, a Maximum of 50% of UNSW Canberra program requirements, and

6.1.2 In an unrelated discipline, up to a Maximum of 25% of UNSW Canberra program requirements.

6.2 All credit will be assessed on a course-by-course basis, taking into account:

6.2.1 The standing of the institution

6.2.2 The content and assessment of the course (i.e. the relevance of the completed course to the program in which credit is sought).

6.2.3 The level of the course (Masters/Graduate Diploma/Graduate Certificate) in relation to the level of program in which credit is sought

6.2.4 The workload of the course, including its equivalence to UNSW units of credit.

6.3 Credit will normally be granted only for courses at the same level.

6.4 Credit will only be granted at the approval of the relevant Head/s of School.

6.5 Credit will only be granted if a Credit Application form is submitted and approved within the credit cancellation period.

6.6 If a student believes their previous studies and/or work experience has given them the knowledge and skills taught within a core course, but they have not completed suitable studies at a recognised tertiary institution, they may seek approval from the relevant Head/s of School to substitute this course for one outside of their degree rules.

6.7 A student who has completed 24 UOC towards a Graduate Diploma or Masters may be eligible to exit the program and be awarded a Graduate Certificate. This student may later return to the same Graduate Diploma or Masters and be granted up to 24 UOC for the courses previously completed.

7. Articulation

7.1 Students who meet the requirements of a Graduate Diploma from UNSW Canberra may seek permission to articulate with full credit into the Masters program of the same discipline.

7.2 Articulation and credit must be approved by the Manager, Student Administrative Services.

8. Variation of program and course requirements

Upon sufficient cause being shown, the Presiding Member, Academic Board may, in special cases, vary the requirements of degree rules provided that any proposed variation shall be initiated by a recommendation from the relevant Head of School and the Registrar’s Nominee (Manager, Student Administrative Services).
Academic rules: Masters by coursework

1. Entry Requirements

1.1 To gain entry into a Masters by coursework program an applicant must:

1.1.1 Have met the requirements of a four year Bachelor degree or a Bachelor degree with Honours with a major in the same or a related discipline from a recognised tertiary institution

or

1.1.2 Have met the requirements of a Graduate Diploma from UNSW in the same or a related discipline or an equivalent qualification from a recognised tertiary institution

or

1.1.3 Have met the requirements of a three year Bachelor degree at pass level, which includes a major in the same or a related discipline, from a recognised tertiary institution, and have completed at least three years relevant full-time work experience

or

1.1.4 Submit evidence of academic and/or professional qualifications and/or related work experience which is determined by the relevant Postgraduate Coordinator to be acceptable grounds for admission into the degree.

2. Enrolment and Progression

2.1 An application to enrol as a student for the degree shall be made on the prescribed form and lodged with Student Administrative Services by the advertised date.

2.2 A student for the degree must undertake courses and pass assessment as prescribed by UNSW.

2.3 The program of study shall total a minimum of 48 units of credit.

2.4 The Academic Standing of a student shall be reviewed at the end of each session. Movement between levels of academic standing is based on progress, measured by cumulative number of failures.

3. Fees

3.1 A student shall pay fees as determined by the UNSW Council.

Academic rules: Graduate Diploma

1. Entry Requirements

1.1 To gain entry into a Graduate Diploma program an applicant must:

1.1.1 Have met the requirements of a Bachelor degree at pass level in the same or a related discipline from a recognised tertiary institution

or

1.1.2 Have met the requirements of a Graduate Certificate in the same or a related discipline from UNSW or an equivalent qualification from a recognised tertiary institution

or

1.1.3 Submit evidence of academic and/or professional qualifications and/or related work experience which is determined by the relevant Postgraduate Coordinator to be acceptable grounds for admission into the degree.

2. Enrolment and Progression

2.1 An application to enrol as a student for the degree shall be made on the prescribed form and lodged with Student Administrative Services by the advertised date.

2.2 A student for the degree must undertake courses and pass assessment as prescribed by UNSW.

2.3 The program of study shall total a minimum of 36 units of credit.

2.4 The Academic Standing of a student shall be reviewed at the end of each session. Movement between levels of academic standing is based on progress, measured by cumulative number of failures.

3. Fees

3.1 A student shall pay fees as determined by the UNSW Council.
Academic rules: Graduate Certificate

1. Entry Requirements

1.1 To gain entry into a Graduate Certificate by coursework program an applicant must:

1.1.1 Have met the requirements of a Bachelor degree in any discipline from a recognised tertiary institution

or

1.1.2 Shall submit evidence of academic and/or professional qualifications and/or related work experience which is determined, by the relevant Postgraduate Coordinator to be acceptable grounds for admission into the degree.

2. Enrolment and Progression

2.1 An application to enrol as a student for the Graduate Certificate shall be made on the prescribed form which shall be lodged with Student Administrative Services by the advertised date.

2.2 A student for the degree must undertake courses and pass assessment as prescribed by UNSW Canberra.

2.3 The program of study shall total a minimum of 24 units of credit.

2.4 The Academic Standing of a student shall be reviewed at the end of each session. Movement between levels of academic standing is based on progress, measured by cumulative number of failures.

2.5 No Graduate Certificate at UNSW Canberra is part of an articulated sequence of programs.

3. Fees

3.1 A student shall pay fees as determined by the UNSW Council.
ARTS
The Graduate Arts Program incorporates the following awards:

- 5855 - Graduate Diploma of Arts
- 8175 - Master of Arts

The Arts programs provide students with the opportunity to acquire high-level understanding and advanced analytical skills in key areas of the social sciences and humanities disciplines. Students can select and combine courses from politics and international relations, strategic and security studies, international and military history, and literature and culture, to build expertise and add new dimensions to their careers, especially where they are in policy-related areas.

The Graduate Diploma and Master of Arts programs further enable students to specialise in:
- Strategy and Management
- Strategy and Security
- Military History

5855 - Arts
Typical Duration: 0.8 years
Minimum UOC for Award: 36 units of credit
Typical UOC per Semester: 24 units of credit
Award(s): Graduate Diploma of Arts (Specialisation)

Program Structure
Students undertaking the Graduate Diploma in Arts must satisfy the course requirements specified in the particular Stream in which they are enrolled. The elective options provide flexibility to tailor the degree to meet individual needs and interests. Students are required to take 6 coursework units (36 UOC) from courses set out under the Stream structure.

Program Description
The Graduate Diploma of Arts enables students to specialise in the GradDipArts in the following Streams:

Military History
The GradDipArts in Military History is designed for postgraduate scholars who wish to gain a comprehensive understanding of the major themes and issues in the field of military history, and to cater to those with a professional need (such as secondary school history teachers responding to some of the demands of the new national curriculum), members of the Australian Defence Force, and interested members of the general public.

Stream Structure
Students undertaking the GradDipArts in Military History are required to complete 6 coursework courses (36 UOC) in any combination from course options as set out below.

Students may, with the approval of the Postgraduate Coordinator, complete one course (6 UOC) from a related coursework program. Research Projects in History are not available to Graduate Diploma students, but are available in the Master of Arts programs after articulation.

Key Topics
- ZHSS8220 Fighting the Second World War
- ZHSS8221 Development of the Art of War
- ZHSS8222 The Rise of The European Warfare State
- ZHSS8223 The First World War
- ZHSS8224 Small Wars of Empire
- ZHSS8225 Australian Military History
- ZHSS8226 The Vietnam Wars: A Thirty Year Conflict
- ZHSS8227 Civil Wars: Societies in Conflict

Further Options
- ZHSS8204 Modern Naval History and Strategy
- ZHSS8210 Genocide: Perception and Intervention
- ZHSS8217 Amphibious Warfare
- ZHSS8218 Hegemony: Global Power in Historical Perspective
- ZHSS8219 The Great Game: Geopolitics and Inner Eurasia
Strategy and Management

The GradDipArts in Strategy and Management is designed for postgraduate scholars and public policy professionals who wish to gain a more detailed understanding of the factors shaping the contemporary strategic environment, the complex policy challenges they present and the skills and insights required of astute managers in that context. Electives include a significant component of business and management skills courses. The Stream provides the foundations for students wishing to proceed to more advanced study in the discipline and promotes insights and skills relevant to policy development in related areas.

Stream Structure

Students undertaking the GradDipArts in Strategy and Management are required to complete 6 coursework courses (36 UOC) from courses set out under the MA in Strategy and Management (as listed below). Each course is worth 6 UOC.

Students may, with the approval of the Postgraduate Coordinator, complete one course (6 UOC) from other courses offered in the Arts, Business or related coursework programs.

The option of undertaking a research project is not available to Graduate Diploma students. Students may apply for recognition of approved professional education short courses in relation to ZBUS8305 Professional Practice.

Students must complete at least two courses from each discipline area (i.e. at least 2 courses under the heading of “Strategy” and at least 2 courses under the heading of “Management”).

Strategy

Students must complete at least two of the following courses:

- ZHSS8403 Global Security
- ZHSS8404 Legal and Moral Problems of International Violence
- ZHSS8409 Asia-Pacific Security: The Dynamics of Change
- ZHSS8410 Australian Defence Policy Concepts and Challenges
- ZHSS8416 Seeking the Information Edge: The Role of Modern Intelligence
- ZHSS8417 Air Power in the 21st Century: Strategic Issues
- ZHSS8430 China’s Security Policy and Military Modernisation
- ZHSS8431 Comparative Defence Planning
- ZHSS8435 Contemporary Strategy
- ZHSS8437 Global Justice and World Politics
- ZHSS8438 The Justice of War: States, Self-Defence and Force
- ZHSS8439 Reforming Repressive Regimes

Management

Students must complete at least two of the following courses:

- ZBUS8101 Strategic Management
- ZBUS8102 Organisational Behaviour
- ZBUS8103 Strategic Human Resources
- ZBUS8106 Public Policy
- ZBUS8108 Accounting and Financial Management
- ZBUS8109 Business Law
- ZBUS8201 Leadership
- ZBUS8207 Managing in the Public Sector
- ZBUS8302 Logistics
- ZBUS8303 Strategic Procurement and Outsourcing
- ZINT8326 Project Management

Strategy and Security

The GradDipArts in Strategy and Security is designed for postgraduate scholars, and foreign affairs, security and defence professionals who wish to gain a detailed understanding of the factors shaping the global and Asia-Pacific security and strategic environments, and the complex policy challenges presented by the new security agenda. These include: managing international relations, non-state actors, regional and international security regimes, strategic planning, diplomacy and intelligence, traditional and human security, contemporary and historical conflicts, and the role of armed forces.

Stream Structure

Students undertaking the GradDipArts in Strategy and Security are required to complete 6 coursework courses (36 UOC) in any combination from course options as set out below. The key topics will normally be offered annually or at least every two years; the further options will be offered on an opportunity basis.

Students may, with the approval of the Postgraduate Coordinator, complete one course (6 UOC) from a related coursework program. Research Projects in International and Political Studies, History and English are not available to Graduate Diploma students, but are available in the Master of Arts programs after articulation.
Key Topics

ZHSS8403  Global Security
ZHSS8404  Legal and Moral Problems of International Violence
ZHSS8409  Asia-Pacific Security: The Dynamics of Change
ZHSS8410  Australian Defence Policy: Concepts and Challenges
ZHSS8431  Comparative Defence Planning
ZHSS8435  Contemporary Strategy

Further Options

Defence and Strategic Policy

ZHSS8204  Modern Naval History and Strategy
ZHSS8217  Amphibious Warfare
ZHSS8221  Development of the Art of War
ZHSS8228  Understanding Asia: North Korea
ZHSS8417  Air Power in the 21st Century: Strategic Issues
ZPEM8202  Principles of Geographic Information Analysis and Remote Sensing
ZPEM8206  Applications in Geographic Information Analysis

Global and Regional Security

ZHSS8300  Media and Democracy in South East Asia
ZHSS8407  Global Governance in an Age of Globalisation
ZHSS8416  Seeking the Information Edge: The Role of Modern Intelligence
ZHSS8430  China's Security Policy and Military Modernisation
ZHSS8437  Global Justice and World Politics
ZHSS8438  The Justice of War: States, Self-Defence and Use of Force
ZHSS8439  Reforming Repressive Regimes

International Dynamics

ZHSS8102  American Empire
ZHSS8210  Genocide: Perception and Intervention
ZHSS8218  Hegemony: Global Power in Historical Perspective
ZHSS8219  The Great Game: Geopolitics and Inner Eurasia
ZHSS8227  Civil Wars: Society in Conflict
ZHSS8408  Emergence of Australian International Relations

Cultural Dynamics

ZHSS8002  Social Research Methods
ZHSS8103  Nearest Neighbours: Asia-Pacific Literature, Culture and Communication
ZHSS8106  War and Cultural Memory
ZHSS8125  Strategic Communication
ZINT8105  Academic Practice: Critical Reading and Writing
ZINT8119  Academic Discourse I: Analysis and Writing (for international students)
8175 - Arts

Typical Duration: 1 year
Minimum UOC for Award: 48 units of credit
Typical UOC per Semester: 24 units of credit
Award: Master of Arts (Specialisation)

Program Structure
Students undertaking the Master of Arts must satisfy the course requirements specified in the Stream in which they are enrolled. The elective options provide the flexibility to tailor the degree to meet individual needs and interests. Students are required to take 8 coursework units (48 UOC) from listed courses. Each course is worth 6 UOC.

Program Description
The Master of Arts enables students to specialise in Military History, Strategy and Management, or Strategy and Security.

Military History
Students undertaking the Master of Arts in Military History are required to take 8 courses (48 UOC) in any combination from course options as set out below.

Key Topics
ZHSS8220 Fighting the Second World War
ZHSS8221 Development of the Art of War
ZHSS8222 The Rise of The European Warfare State
ZHSS8223 The First World War
ZHSS8224 Small Wars of Empire
ZHSS8225 Australian Military History
ZHSS8226 The Vietnam Wars: A Thirty Year Conflict
ZHSS8227 Civil Wars: Societies in Conflict

Further Options
ZHSS8204 Modern Naval History and Strategy
ZHSS8210 Genocide: Perception and Intervention
ZHSS8217 Amphibious Warfare
ZHSS8218 Hegemony: Global Power in Historical Perspective
ZHSS8219 The Great Game: Geopolitics and Inner Eurasia

Research Project
The option of undertaking a research project is available to Masters students who attain a high credit average or better in courses worth 24 UOC and is subject to the approval of the Head of School. The research project is recommended for those with a strong interest in pursuing original research in a particular area or intending to undertake a higher level research qualification.

Strategy and Management
The Master of Arts in Strategy and Management is designed for postgraduate scholars and public policy professionals who wish to gain a more detailed understanding of the factors shaping the contemporary strategic environment, the complex policy challenges they present, and the skills and insights required of astute managers in that context.

Stream Structure
Students undertaking the Master of Arts in Strategy and Management are required to take 8 coursework courses (48 UOC) from the courses set out below.

Students must complete at least three courses from each of the following areas:

Strategy
ZHSS8400 Research Project - IPS Single Session (12 UOC)
ZHSS8401 Research Project - IPS Full Year
ZHSS8403 Global Security
ZHSS8404 Legal and Moral Problems of International Violence
ZHSS8409 Asia-Pacific Security: The Dynamics of Change
ZHSS8410 Australian Defence Policy Concepts and Challenges
ZHSS8416 Seeking the Information Edge: The Role of Modern Intelligence
ZHSS8417 Air Power in the 21st Century: Strategic Issues
ZHSS8430 China’s Security Policy and Military Modernisation
ZHSS8431 Comparative Defence Planning
ZHSS8435 Contemporary Strategy
ZHSS8437 Global Justice and World Politics
ZHSS8438 The Justics of War: States, Self-Defence & Force
ZHSS8439 Reforming Repressive Regimes
Management
ZBUS8101 Strategic Management
ZBUS8102 Organisational Behaviour
ZBUS8103 Strategic Human Resources
ZBUS8108 Accounting and Financial Management
ZBUS8109 Business Law
ZBUS8201 Leadership
ZBUS8207 Managing in the Public Sector
ZBUS8302 Logistics
ZBUS8303 Strategic Procurement and Outsourcing
ZINT8326 Project Management

Additional Study and Elective Courses

Additional special study and elective courses may be offered on an opportunity basis.

Students may, with the approval of the Postgraduate Coordinator, take up to two courses (12 UOC) from other courses offered in the Arts, Business or related coursework programs. Students may apply for recognition of approved professional education short courses in relation to or ZBUS8305 Professional Practice.

Research Project

The option of undertaking a research project – ZHSS8400/8401 Research Project - IPS or ZBUS8501/8502 Research Project - Business – is available to Masters students who attain a high credit average or better in courses worth 24 UOC and is subject to the approval of the Head of School.

The research project is recommended for those with a strong interest in pursuing original research in a particular area or intending to undertake a higher level research qualification. This project may be undertaken in a single session or as a full year course.

Students undertaking the Research Project will not have the option to undertake other courses offered in the Arts, Business or related coursework programs.

Strategy and Security

The Master of Arts in Strategy and Security is designed for postgraduate scholars, and foreign affairs, security and defence professionals who wish to gain a deeper and more advanced understanding of the factors shaping the global and Asia-Pacific security and strategic environments, and the complex policy challenges presented by the new security agenda. These include: managing international relations, non-state actors, regional and international security regimes, strategic planning, diplomacy and intelligence, traditional and human security, contemporary and historical conflicts, and the role of armed forces.

Stream Structure

Students undertaking the Masters of Arts in Strategy and Security are required to take 8 courses (48 UOC) in any combination from course options as set out below.

The key topics will normally be offered annually or at least every two years; the further options will be offered on an opportunity basis.

Key Topics
ZHSS8403 Global Security
ZHSS8404 Legal and Moral Problems of International Violence
ZHSS8409 Asia-Pacific Security: The Dynamics of Change
ZHSS8410 Australian Defence Policy: Concepts and Challenges
ZHSS8431 Comparative Defence Planning
ZHSS8435 Contemporary Strategy

Further Options

Defence and Strategic Policy
ZHSS8204 Modern Naval History & Strategy
ZHSS8217 Amphibious Warfare
ZHSS8221 Development of the Art of War
ZHSS8228 Understanding Asia: North Korea
ZHSS8417 Air Power in the 21st Century: Strategic Issues
ZPEM8202 Principles of Geographic Information Analysis and Remote Sensing
ZPEM8206 Applications in Geographic Information Analysis
### Global and Regional Security
- ZHSS8300 Media and Democracy in South East Asia
- ZHSS8407 Global Governance in an Age of Globalisation
- ZHSS8416 Seeking the Information Edge: The Role of Modern Intelligence
- ZHSS8430 China’s Security Policy and Military Modernisation
- ZHSS8437 Global Justice and World Politics
- ZHSS8438 The Justice of War: States, Self-Defence and Use of Force
- ZHSS8439 Reforming Repressive Regimes

### International Dynamics
- ZHSS8102 American Empire
- ZHSS8210 Genocide: Perception and Intervention
- ZHSS8218 Hegemony: Global Power in History
- ZHSS8219 The Great Game: Geopolitics and Inner Eurasia
- ZHSS8227 Civil Wars: Societies in Conflict
- ZHSS8408 Emergence of Australian International Relations

### Cultural Dynamics
- ZHSS8002 Social Research Methods
- ZHSS8103 Nearest Neighbours: Asia-Pacific Literature, Culture and Communication
- ZHSS8106 War and Cultural Memory: Representations of War and the Making of Cultural Myths
- ZHSS8125 Strategic Communication
- ZINT8105 Academic Practice: Critical Reading and Writing
- ZINT8119 Academic Discourse 1: Analysis and Writing (for international students)

### Research Projects
- ZHSS8122 Research Project - English Single Session (12 UOC)
- ZHSS8123 Research Project - English Full Year
- ZHSS8212 Research Project - History Single Session (12 UOC)
- ZHSS8215 Research Project - History Full Year
- ZHSS8400 Research Project - IPS Single Session (12 UOC)
- ZHSS8401 Research Project - IPS Full Year

### Additional Study and Elective Courses
Additional special study and elective courses may be offered on an opportunity basis.

Students may, with the approval of the Postgraduate Coordinator, take up to two courses (12 UOC) from other courses offered in the Arts, Business or related coursework programs.

### Research Project
The option of undertaking a research project is available to Masters students who attain a high credit average or better in courses worth 24 UOC and is subject to the approval of the Head of School.

The research project is recommended for those with a strong interest in pursuing original research in a particular area or intending to undertake a higher level research qualification. This project may be undertaken in a single session or as a full year course.

Students undertaking the Research Project will not have the option to undertake other courses offered in the Arts, Business or related coursework programs.
**BUSINESS**

The Graduate Business program incorporates the following awards:

- 7366 – Graduate Certificate in Business
- 5377 - Graduate Diploma in Business
- 8388 - Master of Business

Can I study equivalent courses from the Australian School of Business at the Kensington campus?

**Yes** - GradDip/MBus students are able to undertake Kensington, Australian School of Business courses as direct substitution for UNSW Canberra courses.

**Defence personnel** – please note that Kensington courses cannot be funded via the Postgraduate Study at ADFA funding scheme but you can seek DASS or StudyBank funding instead.

<table>
<thead>
<tr>
<th>UNSW CANBERRA COURSE</th>
<th>ASB equivalent</th>
<th>Pre-req's (ASB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZBUS8102 Organisational Behaviour</td>
<td>MGMT5901 Organisational Behaviour</td>
<td>N</td>
</tr>
<tr>
<td>ZBUS8103 Strategic Human Resources</td>
<td>MGMT5907- Human Resource Management</td>
<td>N</td>
</tr>
<tr>
<td>ZBUS8105 Finance &amp; Invest Appraisal</td>
<td>FINS5513 Investments and Portfolio Selection</td>
<td>Y</td>
</tr>
<tr>
<td>ZBUS8109 Business Law</td>
<td>LEGT5511- Legal Foundations of Business</td>
<td>N</td>
</tr>
<tr>
<td>ZBUS8110 Business Risk Management</td>
<td>ACCT5919 Business Risk Management</td>
<td>Y</td>
</tr>
<tr>
<td>ZBUS8201 Leadership</td>
<td>MGMT5902 Leadership for Social Impact</td>
<td>N</td>
</tr>
<tr>
<td>ZBUS8203 Change Management</td>
<td>MGMT5904 Managing Organisational Change</td>
<td>N</td>
</tr>
<tr>
<td>ZBUS8204 Marketing</td>
<td>MARK5801 Marketing Management</td>
<td>Y</td>
</tr>
<tr>
<td>ZBUS8301 Innovation Strategy and Mgt</td>
<td>STRE5801 Strategic Management of Technology and Innovation</td>
<td>Y</td>
</tr>
<tr>
<td>ZBUS8302 Logistics</td>
<td>OPMG5811-Logistics Management</td>
<td>N</td>
</tr>
<tr>
<td>ZBUS8304 Managing Tech Innovation</td>
<td>MGMT5800 Technology, Management and Innovation</td>
<td>N</td>
</tr>
<tr>
<td>ZBUS8101 Strategic Management</td>
<td>STRE5603 Global Business Strategy and Management</td>
<td>Y</td>
</tr>
</tbody>
</table>
### 7366 - Business

**Typical Duration:** 0.5 years  
**Minimum UOC for Award:** 24 units of credit  
**Typical UOC per Semester:** 24 units of credit  
**Award:** Graduate Certificate in Business

**Program Description**

The Graduate Certificate in Business is designed for students without relevant undergraduate qualifications or appropriate professional experience in management who are seeking to understand the principles and practice of management. It provides key foundations essential to successful management and gives students the opportunity to demonstrate a capacity to proceed to more advanced study in the discipline.

**Program Structure**

Students undertaking the Graduate Certificate are required to complete 4 foundation courses (24 UOC). The courses offer both a broad introduction to advanced studies in management and the foundations for undertaking a more specialised stream at either the Graduate Diploma or Masters level.

The foundation courses are:

- ZBUS7101 Introduction to Management
- ZBUS7102 Introduction to Project Management
- ZBUS7103 Economics for Managers
- ZEIT7401 Introduction to Operations Research
- ZPEM7301 Introduction to Data Analysis

**Note:** Students are not eligible to articulate into a Graduate Diploma or Masters upon completion. Students cannot use completed Graduate Certificate courses to gain credit towards Graduate Diploma or Masters programs, as this is a foundation level program.

### 5377 - Business

**Typical Duration:** 0.8 years  
**Minimum UOC for Award:** 36 units of credit  
**Typical UOC per Semester:** 24 units of credit  
**Award:** Graduate Diploma in Business

**Program Description**

The Graduate Diploma in Business is designed for postgraduate scholars and professional managers with undergraduate qualifications in a relevant discipline and/or appropriate professional experience wishing to gain a more advanced understanding of the concepts and principles that underpin effective management, business decision making and leadership in organisations.

**Program Structure**

To complete the requirements of the Graduate Diploma in Business, students must complete at least three (3) core courses. These core courses can be chosen from:

- ZBUS8101 Strategic Management
- ZBUS8102 Organisational Behaviour
- ZBUS8108 Accounting and Financial Management
- ZBUS8109 Business Law

Plus any other three (3) courses in the Schedule for the Masters of Business program (see Master of Business entry for a list of courses).

Students may, with the approval of the Postgraduate Coordinator, complete one course (6 UOC) from other coursework programs of equivalent academic standard.
8388 - Business

School: School of Business
Typical Duration: 1 year
Minimum UOC for Award: 48 units of credit
Typical UOC per Semester: 24 units of credit
Award: Master of Business

Program Description
The Master of Business is designed for postgraduate scholars and professional managers with appropriate undergraduate qualifications in management or a related discipline and/or extensive relevant professional experience wishing to gain a more advanced understanding of the concepts and principles that underpin effective management, business decision making and leadership in organisations.

The Master of Business program aims to develop excellent general managers for the private and public sector, including Defence. The program combines a core set of business courses with the opportunity for students to select courses applicable to their interests and career development. The program offers insights and analytical skills for enhanced management and leadership practices as well as a conceptual foundation for lifelong learning.

Program Structure
To complete the requirements of a Master of Business, students must complete at least three (3) core courses. These core courses can be chosen from:

ZBUS8101 Strategic Management
ZBUS8102 Organisational Behaviour
ZBUS8108 Accounting and Financial Management
ZBUS8109 Business Law

Plus any other five (5) courses in the Schedule for the Masters of Business program.

ZBUS8101 Strategic Management
ZBUS8102 Organisational Behaviour
ZBUS8103 Strategic Human Resources
ZBUS8105 Finance and Investment Appraisal
ZBUS8106 Public Policy
ZBUS8108 Accounting and Financial Management
ZBUS8109 Business Law
ZBUS8110 Business Risk Management
ZBUS8111 Portfolio and Program Management
ZBUS8147 Business of Managing Projects
ZBUS8148 Economic World View
ZBUS8201 Leadership
ZBUS8203 Change Management
ZBUS8204 Marketing
ZBUS8205 Business Ethics
ZBUS8207 Managing in the Public Sector
ZBUS8208 Humanitarian Logistics
ZBUS8301 Innovation Strategy and Management
ZBUS8302 Logistics
ZBUS8303 Strategic Procurement and Outsourcing
ZBUS8304 Managing Technological Innovation
ZBUS8305 Professional Practice
ZBUS8308 Business Planning
ZBUS8309 Project Management
ZBUS8501 Research Project - Business
ZBUS8502 Research Project - Business (12 UOC)
ENGINEERING SCIENCE

The Engineering Science programs incorporate the following awards:

7387 Graduate Certificate in Engineering Science
5889 - Graduate Diploma in Engineering Science
8569 - Master of Engineering Science

The Engineering Science programs offer the opportunity to pursue graduate-level study in the traditional engineering discipline areas. In addition to a broad range of technical and professional engineering courses, there is the opportunity for students to blend that specialist expertise with related courses in the Science and Business programs.

The Graduate Diploma is intended to provide engineering professionals with professional academic qualifications. Mature students wishing to retrain may use the Graduate Diploma as the foundation for proceeding to a Master of Engineering Science degree.

The Master of Engineering Science program provides students with the opportunity to acquire high level understanding and advanced analytical skills in the key areas of Electrical Engineering and Data Communication. Coverage of courses in this program spans the engineering disciplines and the management of projects frequently incorporating those engineering disciplines. There is strong emphasis on extending undergraduate skills and knowledge and vocational experiences to enable graduates to apply their high level understanding to real world complex engineering problems and their management.

The Engineering Science program is divided into the following specialisations:

- C4ISREW
- Data Communications and Analysis
- Electrical Engineering
- Marine Engineering (Graduate Certificate only)
- Rotorcraft Engineering (Graduate Certificate only)

7387 - Engineering Science

School: Engineering and Information Technology
Typical Duration: 0.5 years
Minimum UOC for Award: 24 units of credit
Typical UOC per Semester: 24 units of credit
Award(s): Graduate Certificate in Engineering Science

Program Description

The Graduate Certificate in Engineering Science enables students to specialise in an Engineering discipline. The Graduate Certificate in Engineering Science is specially designed for students with an undergraduate degree or established profession in another field who wish to develop an advanced understanding of one of the following Streams:

- Marine Engineering
- Rotorcraft Engineering

Program Objectives and Learning Outcomes

The graduate certificate is intended to assist professionals in coming to terms with modern technology and its use. Mature students wishing to retrain may use the Graduate Certificate as the first step in a sequence of study to Graduate Diploma and Masters of Engineering Science qualifications.

Program Structure

Students entering the program at the Graduate Certificate level are required to complete four foundation courses (24 UOC) from those nominated by the School of Engineering and Information Technology. The range of courses offered will vary and students wishing to undertake a Graduate Certificate in Engineering Science should discuss the options with the Program Authority.
Marine Engineering

Students undertaking the Graduate Certificate in Engineering Science (Marine Engineering) are required to complete 4 coursework courses (24 UOC). Students must complete three core courses and one elective course approved by the School.

Core Courses
ZEIT6522 Electrical and Mechanical Plant
ZEIT6573 Naval Architecture
ZEIT6574 Marine Engineering

Electives
One postgraduate course approved by the Postgraduate Coordinator from the School of Engineering and Information Technology.

Rotorcraft Engineering

Students undertaking the Graduate Certificate in Engineering Science (Rotorcraft Engineering) are required to complete 4 coursework courses (24 UOC). Students must complete two core courses and two elective courses approved by the School.

Core Courses
ZEIT6551 Advanced Rotorcraft Engineering
ZEIT6552 Rotorcraft Engineering

Electives
Two postgraduate courses approved by the Postgraduate Coordinator from the School of Engineering and Information Technology.

5889 - Engineering Science

Typical Duration: 0.8 years
Minimum UOC for Award: 36 units of credit
Typical UOC per Semester: 24 units of credit
Award(s): Graduate Diploma in Engineering Science (Specialisation)

Program Structure
Students undertaking the Graduate Diploma in Engineering Science program are required to complete 36 UOC in courses from any of the Streams available in this program.

Students enrolling in a specific stream must satisfy the core and elective course requirements in the particular stream in which they are enrolled, and are required to take 6 coursework units (36 UOC) for core and elective courses. Each course is worth 6 UOC.

C4ISREW

The GradDipEngSc in Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance and Electronic Warfare (C4ISREW) is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or appropriate professional experience who wish to develop an enhanced understanding of the principles and practices of C4ISREW and to strengthen their skills in this area. The graduate diploma provides advanced professional qualifications and the foundations for students wishing to proceed to higher levels of study in the discipline.

Stream Structure
Students undertaking the GradDipEngSc C4ISREW are required to take six coursework courses (36 UOC). Students must complete two compulsory courses and three elective courses from the list below.

Compulsory
ZEIT8102 C3I Systems
ZEIT8115 Information Operations

Electives
ZEIT8104 Cyber-Security
ZEIT8106 Cryptography
ZEIT8119 Internetworking
ZEIT8219 Satellite Communications
ZEIT8221 Spaceborne Imaging Technology
ZEIT8227 Digital Image Processing and Enhancement
ZEIT8229 Non-Communications Electronic Warfare
ZEIT8403 Capability Option Analysis

Not all elective courses will be available in a particular year.

Students may, with the approval of the Postgraduate Coordinator, take up to one course (6 UOC) from other Master of Engineering Science Streams or other coursework programs.

The option of undertaking a research project is not available to students of the Graduate Diploma.
Data Communications and Analysis

The GradDipEngSc in Data Communications and Analysis is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant engineering discipline and/or appropriate professional experience who wish to develop an enhanced understanding of the principles and practices of data communications and analysis and to strengthen their skills in this area. The diploma provides advanced professional qualifications and the foundations for students wishing to proceed to higher levels of study in the discipline.

Stream Structure

Students undertaking the GradDipEngSc in Data Communications and Analysis are required to complete 6 coursework courses (36 UOC) from the courses set out on below. Not all courses will be available in a particular year.

Courses

- ZEIT6521 Digital Signal Processing and Control
- ZEIT8104 Cyber-Security
- ZEIT8106 Cryptography
- ZEIT8119 Internetworking
- ZEIT8219 Satellite Communications
- ZEIT8221 Spaceborne Imaging Technology
- ZEIT8227 Digital Image Processing and Enhancement

Alternatively, students may, with the approval of the Postgraduate Coordinator, take up to one course (6 UOC) from other Master of Engineering Science Streams or other coursework programs. The option of undertaking a research project is not available to students of the Graduate Diploma.

Electrical Engineering

Students undertaking the Graduate Diploma in Electrical Engineering are required to take 6 courses (36 UOC) from the courses set out under the MEngSc in Electrical Engineering program Stream information. As with the Masters, students may elect either to specialise in a particular area or to complete a more broadly based qualification.

Students may, with the approval of the Postgraduate Coordinator, take one course (6 UOC) from a related coursework program.

The option of undertaking a research project is not available to students of the Graduate Diploma.

Students at the Graduate Diploma level are expected to possess the foundation knowledge relevant to the particular areas of engineering they are studying.

8569 - Engineering Science

Typical Duration: 1 year
Minimum UOC for Award: 48 units of credit
Typical UOC per Semester: 24 units of credit
Award(s): Master of Engineering Science (Specialisation)

Program Structure

Students undertaking the Master of Engineering Science program are required to complete 48 UOC in courses from any of the Streams available in this program. Students enrolling in a specific Stream must satisfy the core and elective course requirements specified in the particular Stream in which they are enrolled. The elective options provide the flexibility to tailor the degree to meet individual needs and requirements. Students are required to complete 8 coursework units (48 UOC) from the core and elective courses set out under the specialisation information.
C4ISREW
The MEngSc in Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance and Electronic Warfare (C4ISREW) is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or appropriate professional experience who wish to develop an enhanced understanding of the principles and practices of C4ISREW and to strengthen their skills in this area.

Stream Structure
Students undertaking the MEngSc in C4ISREW are required to take eight coursework courses (48 UOC) from core and elective courses in accordance with the conditions set out below. Each course is worth 6 UOC.

Compulsory Courses:
- ZEIT8102 C3I Systems
- ZEIT8115 Information Operations

Elective Courses:
- ZEIT8104 Cyber-Security
- ZEIT8106 Cryptography
- ZEIT8119 Internetworking
- ZEIT8219 Satellite Communications
- ZEIT8221 Spaceborne Imaging Technology
- ZEIT8227 Digital Image Processing and Enhancement
- ZEIT8229 Non-Communications Electronic Warfare
- ZEIT8403 Capability Option Analysis

Alternatively, students may, with the approval of the Postgraduate Coordinator, complete one course from other Master of Engineering Science Streams or other coursework programs.

Data Communications and Analysis
The MEngSc in Data Communications and Analysis is designed for postgraduate scholars with appropriate undergraduate qualification in a relevant engineering discipline and/or appropriate professional experience who wish to develop and enhanced understanding of the principles and practices of data communications and analysis and to strengthen their skills in this area.

Stream Structure
Students undertaking the MEngSc in Data Communication and Analysis are required to complete 8 coursework courses (48 UOC) with at least six courses from the list below.

- ZEIT6521 Digital Signal Processing and Control
- ZEIT8104 Cyber-Security
- ZEIT8106 Cryptography
- ZEIT8119 Internetworking
- ZEIT8219 Satellite Communications
- ZEIT8221 Spaceborne Imaging Technology
- ZEIT8227 Digital Image Processing and Enhancement
- ZEIT8228 Modern Signal Estimation and Filtering Techniques

Students may, with the approval of the Postgraduate Coordinator, complete two courses (12 UOC) from other Master of Engineering Science Streams or other coursework programs.

Research Project
The option of undertaking a project worth 12 UOC (ZEIT8299 Project Report - Electrical Engineering or enrolment for two sessions in ZEIT8298 Project Report - Electrical Engineering part time) is available to Masters students who attain a high credit average or better in four courses and is subject to approval of the Postgraduate Coordinator. The project is recommended for those with a strong interest in pursuing original research in a particular area or intending to undertake a higher-level research qualification. Students undertaking the project are unable to enrol in courses from other coursework programs.

Electrical Engineering
The MEngSc in Electrical Engineering meets the needs of postgraduate scholars and professional officers with appropriate undergraduate qualifications in a relevant engineering discipline and/or extensive professional experience seeking to develop an advanced appreciation of the principles of electrical engineering and their professional application.

Students undertaking the MEngSc in Electrical Engineering have the flexibility to tailor their degree to meet their individual needs and interests. While the courses are broadly grouped to reflect different aspects of the discipline, students may elect either to specialise in a particular area or to complete a more broadly based qualification.
Stream Structure

Students are required to take 8 coursework courses (48 UOC) from the courses set out below. Each course is worth 6 UOC. The course groupings suggest the selection of courses students might undertake should they wish to specialise in that area.

Communications

ZEIT8104 Cyber-Security
ZEIT8119 Internetworking
ZEIT8219 Satellite Communications

Signal Processing

ZEIT6521 Digital Signal Processing and Control
ZEIT8106 Cryptography
ZEIT8229 Non-Communications Electronic Warfare

Image Processing

ZEIT8221 Spaceborne Imaging Technology
ZEIT8227 Digital Image Processing and Enhancement
ZEIT8102 C3I Systems
ZEIT8226 Systems Engineering Practice

Special electives may also be made available.

The option of undertaking a project worth 12 UOC is available to Masters students who attain a high credit average or better in four courses and is subject to approval of the Postgraduate Coordinator. The project is recommended for those with a strong interest in pursuing original research in a particular area or intending to undertake a higher-level research qualification. Students undertaking the project are unable to take courses from other coursework programs.

Subject to the approval of the Postgraduate Coordinator, students may elect to take up to two courses (12 UOC) from related coursework programs.

INFORMATION TECHNOLOGY

The Information Technology Programs incorporate the following awards:

7380 – Graduate Certificate in Information Technology
5395 - Graduate Diploma in Information Technology
9380 – Master of Information Technology

The Information Technology programs are designed for postgraduate students who wish to develop an enhanced understanding of the principles that shape information technology. Students study the principles of information technology and their implementation through design, development and application phases. Students can focus their studies in the areas of computer networks, operations research, complex ICT management, simulation and immersive environments or systems engineering. The Graduate Diploma and Masters provides advanced professional qualifications in Information Technology and the foundations for students who wish to proceed to higher levels of study in the Doctor of Information Technology. The Graduate Certificate in Information Technology is designed for postgraduate scholars with undergraduate qualifications or an established profession in another field who wish to gain an understanding of the principles that shape information technology. The certificate assists professionals to understand and be able to employ information technology in their own environment.

The Graduate Certificate provides the foundations for students wishing to proceed to higher levels of study in the Information Technology discipline, including the Graduate Diploma, Master and Doctor of Information Technology.
**7380 - Information Technology**

**Typical Duration:** 0.5 years  
**Minimum UOC for Award:** 24  
**Typical UOC per semester:** 24  
**Award(s):** Graduate Certificate in Information Technology

**Program Description**

The Graduate Certificate in Information Technology is designed for postgraduate scholars with undergraduate qualifications or an established profession in another field who wish to gain an understanding of the principles that shape information technology. The certificate assists professionals to understand and be able to employ information technology in their own environment.

**Program Objectives and Graduate Attributes**

The Graduate Certificate provides the foundations for students wishing to proceed to higher levels of study in the Information Technology discipline, including the Graduate Diploma, Master and Doctor of Information Technology.

The program is flexible and allows students to choose courses that focus on computer science or operations research aspects of information technology.

**Program Structure**

Students will complete 24 units of credit (four courses). Students must complete three compulsory courses and one elective.

**Compulsory Courses**

ZEIT7101 Computational Problem Solving  
ZEIT7105 Introduction to the IT Profession  
ZEIT7106 Intro to Systems Thinking

**Elective Courses**

ZEIT7103 Introduction to Programming  
ZEIT7401 Intro to Operations Research

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**5395 - Information Technology**

**Typical Duration:** 1 year  
**Minimum UOC for Award:** 48  
**Typical UOC per semester:** 24  
**Award(s):** Graduate Diploma in Information Technology

**Program Rules and Structure:**

The Graduate Diploma in Information Technology is designed for postgraduate scholars with undergraduate qualifications in a relevant discipline and/or appropriate professional experience who wish to develop an enhanced understanding of the principles that shape information technology. Students study the principles of information technology and their implementation through design, development and application phases. Students can focus their studies in the areas of computer networks, operations research or immersive environments. The Graduate Diploma provides advanced professional qualifications and the foundations for students who wish to proceed to higher levels of study in the information technology discipline, including the Master and Doctor of Information Technology.

Students will complete 48 units of credit (eight courses). Students must complete four compulsory courses and four courses in a specialisation (as listed below). One course in the specialisation may be substituted with another course offered in a related coursework program with permission of the postgraduate coordinator.

**Compulsory courses:**

ZEIT8118 Strategy and Architecture  
ZEIT8136 Software Project Management  
ZEIT8138 Systems Planning  
ZEIT8144 ICT Processes

**Specialisations (choose 4 from the same group)**

**Computer Networks and Security**

ZEIT8104 Cyber-security  
ZEIT8106 Cryptography  
ZEIT8119 Internetworking  
ZEIT8137 Systems and Network Administration  
ZEIT8146 Intrusion Detection and Response
### 9380 - Information Technology

**Typical Duration:** 1 year  
**Minimum UOC for Award:** 48  
**Typical UOC per semester:** 24  
**Award(s):** Master of Information Technology

**Program Description**

The Master of Information Technology is designed for postgraduate scholars with a four year undergraduate qualification in a relevant discipline and/or extensive professional experience who wish to develop an enhanced understanding of the principles that shape information technology. Students study the principles of information technology and their implementation through design, development and application phases. Students can focus their studies in the areas of computer networks, operations research, complex ICT management, simulation and immersive environments or systems engineering. The Masters provides advanced professional qualifications in Information Technology and the foundations for students who wish to proceed to higher levels of study in the Doctor of Information Technology.

**Program Objectives and Graduate Attributes**

The Masters provides advanced professional qualifications in Information Technology and the foundations for students who wish to proceed to higher levels of study in the Doctor of Information Technology.

**Program Structure**

Students with direct entry to the MIT will complete a minimum of 48 units of credit. Students must complete: four courses in a specialisation, two free elective courses and a 12 UOC research project.

Students articulating from the Graduate Diploma in Information Technology (5395) will only do the two free electives and 12 UOC research project. Articulating students must select the two free elective courses from specialisations that they have not already studied.

The free electives may also be drawn from this program or a related coursework program with permission of the postgraduate coordinator.
Specialisations

**Computer Networks and Security**
- ZEIT8104 Cyber-security
- ZEIT8106 Cryptography
- ZEIT8119 Internetworking
- ZEIT8137 Systems and Network Administration
- ZEIT8146 Intrusion Detection and Response

**Operations Research**
- ZEIT8402 Problem Structuring Techniques
- ZEIT 8403 Capability Options Analysis
- ZEIT8404 Operations Research
- ZEIT 8405 Quantitative Operations Research
- ZEIT8412 Simulation

**Complex ICT Management**
- ZBUS8111 Portfolio and Program Management
- ZBUS8301 Innovation and Strategy Management
- ZBUS8303 Strategic Procurement
- ZEIT8114 E-Commerce
- ZEIT8118 Strategy and Architecture
- ZEIT8403 Capability Options Analysis

**Simulation and Immersive Environments**
- ZEIT8146 Human-Machine Integration
- ZEIT8148 Serious Games
- ZEIT8412 Simulation
- ZEIT8413 Simulation Applications
- ZEIT8415 Advanced Computational Problem Solving

**Systems Engineering**
- ZBUS8302 Logistics
- ZEIT8226 Systems Engineering Practice
- ZEIT8230 Requirements Engineering
- ZEIT8231 Test and Evaluation
- ZINT8326 Project Management

Projects – Compulsory: Students must complete 12 UOC
- ZEIT8198 Project - Information Technology (part time)
- ZEIT8199 Project - Information Technology (full time)

Plus two other courses

### PROJECT MANAGEMENT

The Project Management Programs incorporate the following awards:

- 5595 - Graduate Diploma of Project Management
- 8595 - Master of Project Management

The Graduate Diploma of Project Management fully complements the Master of Project Management. Students will be able to articulate to the Masters program on completion of the Graduate Diploma course requirements. The course requirements for the Graduate Diploma will mirror those for the Master of Project Management, except that Graduate Diploma students will not be able to undertake the research project courses ZBUS8501 or ZBUS8502.

The Graduate Diploma of Project Management and the Master of Project Management programs are designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or extensive professional experience who wish to develop a higher level understanding of the principles and practices of project management and to strengthen their skills in this area.

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**5595 – Project Management**

**Typical Duration:** 0.8 year

**Minimum UOC for Award:** 36 units of credit

**Typical UOC per Semester:** 24 units of credit

**Award:** Graduate Diploma of Project Management

**Program Description**

The GradDipProjMgt is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or extensive professional experience who wish to develop a higher level understanding of the principles and practices of project management and to strengthen their skills in this area.
Program Structure

Students undertaking the GradDipProjMgt are required to take 6 coursework courses (36 UOC) from the courses set out below. Students must complete four compulsory courses (24 UOC) and two elective courses (12 UOC) from the list below. Not all elective courses will be available in a particular year.

Compulsory
- ZBUS8147 Business of Managing Projects
- ZEIT8302 Project Administration
- ZEIT8303 Project Management Body of Knowledge
- ZEIT8308 System Dynamics Project Organisation

Electives
- ZBUS8101 Strategic Management
- ZBUS8102 Organisational Behaviour
- ZBUS8103 Strategic Human Resources
- ZBUS8105 Finance & Investment Appraisal
- ZBUS8106 Public Policy
- ZBUS8108 Accounting and Financial Management
- ZBUS8109 Business Law
- ZBUS8110 Business Risk Management
- ZBUS8111 Portfolio & Program Management
- ZBUS8148 Economic World View
- ZBUS8201 Leadership
- ZBUS8203 Change Management
- ZBUS8204 Marketing
- ZBUS8205 Business Ethics
- ZBUS8207 Managing in the Public Sector
- ZBUS8301 Innovation Strategy and Management
- ZBUS8302 Logistics
- ZBUS8303 Strategic Procurement and Outsourcing
- ZBUS8304 Managing Tech Innovation
- ZBUS8308 Business Planning
- ZEIT8136 Software Project Management
- ZEIT8138 Systems Planning
- ZEIT8226 Systems Engineering Practice
- ZEIT8230 Requirements Engineering
- ZEIT8231 Test and Evaluation
- ZEIT8307 System Dynamics Modelling
- ZEIT8402 Problem Structuring Techniques
- ZEIT8403 Capability Option Analysis
- ZEIT8404 Operations Research
- ZEIT8412 Simulation
- ZINT8326 Project Management

8595 – Project Management

Typical Duration: 1 year
Minimum UOC for Award: 48 units of credit
Typical UOC per Semester: 24 units of credit
Award: Master of Project Management

Program Description

The MProjMgt is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or extensive professional experience who wish to develop a higher level understanding of the principles and practices of project management and to strengthen their skills in this area.

Program Structure

Students undertaking the MProjMgt are required to take 8 coursework courses (48 UOC) from the courses set out below. Students must complete four compulsory courses (24 UOC) and four elective courses (24 UOC) from the list below. Not all elective courses will be available in a particular year.

Compulsory
- ZBUS8147 Business of Managing Projects
- ZEIT8302 Project Administration
- ZEIT8303 Project Management Body of Knowledge
- ZEIT8308 System Dynamics Project Organisation

Electives
- ZBUS8101 Strategic Management
- ZBUS8102 Organisational Behaviour
- ZBUS8103 Strategic Human Resources
- ZBUS8105 Finance & Investment Appraisal
- ZBUS8106 Public Policy
- ZBUS8108 Accounting and Financial Management
- ZBUS8109 Business Law
- ZBUS8110 Business Risk Management
- ZBUS8111 Portfolio & Program Management
- ZBUS8148 Economic World View
- ZBUS8201 Leadership
- ZBUS8203 Change Management
- ZBUS8204 Marketing
- ZBUS8205 Business Ethics
- ZBUS8207 Managing in the Public Sector
- ZBUS8301 Innovation Strategy and Management
- ZBUS8302 Logistics
- ZBUS8303 Strategic Procurement and Outsourcing
- ZBUS8304 Managing Tech Innovation
- ZBUS8308 Business Planning
- ZEIT8136 Software Project Management
- ZEIT8138 Systems Planning
- ZEIT8226 Systems Engineering Practice
- ZEIT8230 Requirements Engineering
- ZEIT8231 Test and Evaluation
- ZEIT8307 System Dynamics Modelling
- ZEIT8402 Problem Structuring Techniques
- ZEIT8403 Capability Option Analysis
- ZEIT8404 Operations Research
- ZEIT8412 Simulation
- ZINT8326 Project Management
ZBUS8205 Business Ethics
ZBUS8207 Managing in the Public Sector
ZBUS8208 Humanitarian Logistics
ZBUS8301 Innovation Strategy and Management
ZBUS8302 Logistics
ZBUS8303 Strategic and Procurement Outsourcing
ZBUS8304 Managing Technical Innovation
ZBUS8308 Business Planning
ZEIT8136 Software Project Management
ZEIT8138 Systems Planning
ZEIT8226 Systems Engineering Practice
ZEIT8230 Requirements Engineering
ZEIT8231 Test and Evaluation
ZEIT8307 System Dynamics Modelling
ZEIT8403 Capability Option Analysis
ZEIT8404 Operations Research
ZEIT8412 Simulation
ZINT8326 Project Management

Students may, with School approval, take up to two courses (12 UOC) from other coursework programs.

**SCIENCE**

The Science Programs incorporate the following awards:

- 7382 - Graduate Certificate in Science
- 5882 - Graduate Diploma in Science
- 8562 - Master of Science

The Science program is being developed to provide students with the opportunity to acquire high level understanding and advanced analytical and professional skills in key areas of the science disciplines.

There is a significant emphasis on integrating the various disciplinary approaches that can be applied to particular discipline areas and on students acquiring both the concepts that underpin an area of scientific enquiry and an understanding of how they are translated into practical applications.

The Graduate Certificate in Science is designed for postgraduate scholars with an undergraduate degree or established profession in another field who wish to gain an understanding of the principles of science.

The following specialisation is available in the GradCertSci program:

- Defence Operations Research

The Graduate Diploma and Master of Science programs aim to allow students to develop a high level understanding of the principles that shape information technology and their implementation through the design, development and application phases.

The following specialisation is available in the GradDipSci and MSc programs:

- Defence Operations Research
7382 - Science

Typical Duration: 0.5 years
Minimum UOC for Award: 24 units of credit
Typical UOC per Semester: 24 units of credit
Award: Graduate Certificate in Science (Specialisation)

Program Description
The Graduate Certificate in Science enables students to specialise in Defence Operations Research.

Program Structure
All students must study four courses chosen in accordance with the rules for the stream.

Defence Operations Research
The GradCertSc in Defence Operations Research is designed for students with an undergraduate degree or established profession in another field who wish to gain an understanding of decision making, analysis and operations research techniques relevant to researchers in the Defence sector.

The GradCertSc in Defence Operations Research forms the first step in a sequence of study to Graduate Diploma and Masters qualifications in the discipline.

Stream Structure
Students undertaking the GradCertSc in Defence Operations Research are required to complete four courses (24 UOC) from the following core and elective courses:
- Two compulsory courses
- One core course
- One additional course chosen from either core or elective course

Compulsory Courses
EEET5107 Systems Engineering for Complex Problem Solving (University of South Australia)
EEET5108 Research Methods in a Multidisciplinary Environment (University of South Australia)
ZEIT8402 Problem Structuring Techniques
ZEIT8404 Operations Research
ZEIT8405 Quantitative Operations Research

Core Courses
ZEIT8401 Supply Chain Science and Simulation
ZEIT8403 Capability Option Analysis
ZEIT8405 Quantitative Operations Research
ZEIT8412 Simulation

Elective Courses
AERO2311 Risk and Technology Decisions (RMIT University)
EEET5048 Contemporary Systems Thinking (University of South Australia)
DEFSCI7001 Decision-making in Real Environments (University of Adelaide)
DEFSCI7003 Artificial Intelligence (University of Adelaide)
DEFSCI7013 Knowledge Representation (University of Adelaide)
ZPEM7301 Introduction to Data Analysis

5882 - Science

Typical Duration: 0.8 years
Minimum UOC for Award: 48 units of credit
Typical UOC per Semester: 24 units of credit
Award: Graduate Diploma in Science (Specialisation)

Program Objectives and Learning Outcomes
The Graduate Diploma of Science is designed for postgraduate scholars with undergraduate qualifications in a relevant discipline and/or appropriate professional experience.

Program Structure
Eight courses are chosen in accord with the rules for the Defence Operations Research stream.
Defence Operations Research

The stream is designed for postgraduate scholars with undergraduate qualifications in a relevant science discipline and/or extensive professional experience, to provide a comprehensive understanding of decision making, analysis and operations research techniques relevant to researchers in the Defence sector.

Stream Structure

Students undertaking the GradDipSc in Defence Operations Research are required to complete eight courses (48 UOC) from the lists below as follows:

- All five compulsory courses
- Two Core courses
- One additional course chosen from either core or elective courses.

Compulsory Courses

EEET5107 Systems Engineering for Complex Problem Solving
(University of South Australia)
EEET5108 Research Methods in a Multidisciplinary Environment
(University of South Australia)
ZEIT8402 Problem Structuring Techniques
ZEIT8404 Operations Research
ZEIT8405 Quantitative Operations Research

Core Courses

ZEIT8401 Supply Chain Science and Simulation
ZEIT8403 Capability Option Analysis
ZEIT8405 Quantitative Operations Research
ZEIT8412 Simulation

Elective Courses

AERO2311 Risk and Technology Decisions
(RMIT University)
EEET5048 Contemporary Systems Thinking
(University of South Australia)
DEFSCI7001 Decision-making in Real Environments
(University of Adelaide)
DEFSCI7003 Artificial Intelligence
(University of Adelaide)
DEFSCI7013 Knowledge Representation
(University of Adelaide)
ZPEM8309 Applications of Data Analysis

8562 - Science

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<tr>
<th>School:</th>
<th>School of Engineering and Information Technology</th>
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<tr>
<td>Typical Duration:</td>
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<tr>
<td>Minimum UOC for Award:</td>
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<td>Typical UOC per Semester:</td>
<td>24 units of credit</td>
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<tr>
<td>Award(s):</td>
<td>Master of Science (Specialisation)</td>
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</tbody>
</table>

Program Structure

Students undertaking the program are required to undertake eight courses and a research project in accordance with the rules for the individual Stream.

Defence Operations Research

The MSc in Defence Operations Research is designed for postgraduate scholars with undergraduate qualifications in a relevant science discipline and/or extensive professional experience, to provide a comprehensive understanding of decision making, analysis and operations research techniques relevant to researchers in the Defence sector.

Stream Structure

Students undertaking the MSc in Defence Operations Research are required to meet all of the requirements for the GradDipSc in Defence Operations Research. In addition they are required to complete a research project equivalent to one semester of full-time study.
SYSTEMS ENGINEERING

The Systems Engineering Programs incorporate the following awards:

- 5867 - Graduate Diploma in Systems Engineering
- 8567 - Master of Systems Engineering

The Systems Engineering program provides students with the opportunity to acquire high level understanding and advanced analytical skills in the key areas of system engineering, requirements engineering, test and evaluation, project management and logistics. Coverage of courses in this program spans the engineering disciplines and the management of projects frequently incorporating those engineering disciplines. There is a strong emphasis on extending undergraduate skills and knowledge and vocational experiences to enable graduates to apply their high level understanding to real world complex systems engineering problems.

The Graduate Diploma in Systems Engineering and the Master of Systems Engineering programs aim to allow students to develop a high level of understanding of the principles that shape systems engineering and their implementation through the design, development and application phases.

In addition to the stand alone MSysEng degree award (generic), the following specialisations are also available in this program:

- Electronic Warfare
- Marine Engineering
- Networking
- Space Systems
- Systems Engineering (generic)
- Test and Evaluation

Research Project

The option of undertaking a research project worth 12 UOC (ZEIT8297 Project Report - Systems Engineering or enrolment for two semesters in ZEIT8296 Project Report - Systems Engineering part time) is available to Masters students who obtain a high credit average or better in four courses and is subject to approval of the Postgraduate Coordinator. The project is recommended for those with a strong interest in pursuing original research in a particular area or intending to undertake a higher research qualification. With the permission of the School, students enrolling in a project with a suitable topic may be exempted from either of the courses ZEIT8230 Requirements Engineering or ZEIT8231 Test and Evaluation.

5867 – Systems Engineering

Typical Duration: 1 year
Minimum UOC for Award: 36 units of credit
Typical UOC per Semester: 24 units of credit
Award: Graduate Diploma in Systems Engineering

Program Structure

Students undertaking the GradDipSysEng are required to take 6 coursework courses (36 UOC) from the courses set out below. Students must complete four compulsory courses (24 UOC) and a minimum of one elective course (6 UOC) from the list below.

Not all elective courses will be available in a particular year.

Compulsory

- ZEIT8226 Systems Engineering Practice
- ZEIT8230 Requirements Engineering
- ZEIT8231 Test and Evaluation
- ZEIT8403 Capability Option Analysis

Electives

- ZBUS8302 Logistics
- ZEIT8136 Software Project Management
- ZEIT8402 Problem Structuring Techniques
- ZEIT8404 Operations Research
- ZEIT8412 Simulation
- ZINT8326 Project Management
- ZPEM8309 Applications of Data Analysis

Students may, with the approval of the Postgraduate Coordinator, take up to one course (6 UOC) from other coursework programs.
# 8567 - Systems Engineering

**Typical Duration:** 1 year  
**Minimum UOC for Award:** 48 units of credit  
**Typical UOC per Semester:** 24 units of credit  
**Award(s):** Master of Systems Engineering  
(Specialisation)

## Electronic Warfare

The Master of Systems Engineering in Electronic Warfare is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or extensive professional experience who wish to develop a high level understanding of the principles and practices of electronic warfare and to strengthen their skills in this area.

### Stream Structure

Students undertaking the Master of Systems Engineering in Electronic Warfare are required to complete 8 coursework courses (48 UOC). Students must complete the four compulsory MSysEng courses and at least two specialist courses from the list below and up to two electives. Not all courses will be available in a particular year.

**Compulsory Courses**
- ZEIT8226 Systems Engineering Practice  
- ZEIT8230 Requirements Engineering  
- ZEIT8231 Test and Evaluation  
- ZEIT8403 Capability Option Analysis

**Electronic Warfare Specialist Electives**
- ZEIT8102 C3I Systems  
- ZEIT8104 Cyber-Security  
- ZEIT8106 Cryptography  
- ZEIT8115 Information Operations  
- ZEIT8229 Non-Communications Electronic Warfare

**Electives**
Students may, with the approval of the Postgraduate Coordinator, complete up to two courses (12 UOC) from a related coursework program.

## Marine Engineering

The Master of Systems Engineering in Marine Engineering is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or extensive professional experience who wish to develop a high level understanding of the principles and practices of marine engineering and to strengthen their skills in this area.

### Stream Structure

Students undertaking the Master of Systems Engineering in Marine Engineering are required to complete 8 coursework courses (48 UOC). Students must complete four compulsory courses and four elective courses approved by the School.

**Compulsory Courses**
- ZEIT8226 Systems Engineering Practice  
- ZEIT8230 Requirements Engineering  
- ZEIT8231 Test and Evaluation  
- ZEIT8403 Capability Option Analysis

**Electives**
Four courses in marine engineering or a related discipline approved by the School.

## Networking

The Master of Systems Engineering in Networking is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or extensive professional experience who wish to develop a high level understanding of the principles and practices of electronic warfare and to strengthen their skills in this area.

### Stream Structure

Students undertaking the Master of Systems Engineering in Networking are required to complete 8 coursework courses (48 UOC). Students must complete the four compulsory MSysEng courses and at least two specialist courses from the list below and up to two electives. Not all courses will be available in a particular year.

**Compulsory Courses**
- ZEIT8226 Systems Engineering Practice  
- ZEIT8230 Requirements Engineering  
- ZEIT8231 Test and Evaluation  
- ZEIT8403 Capability Option Analysis

**Electives**
Students may, with the approval of the Postgraduate Coordinator, complete up to two courses (12 UOC) from a related coursework program.
### Networking Specialist Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZEIT8102</td>
<td>C3I Systems</td>
</tr>
<tr>
<td>ZEIT8104</td>
<td>Cyber-Security</td>
</tr>
<tr>
<td>ZEIT8106</td>
<td>Cryptography</td>
</tr>
<tr>
<td>ZEIT8119</td>
<td>Internetworking</td>
</tr>
<tr>
<td>ZEIT8137</td>
<td>Systems and Network Administration</td>
</tr>
<tr>
<td>ZEIT8138</td>
<td>Systems Planning</td>
</tr>
</tbody>
</table>

### Electives

Students may, with the approval of the Postgraduate Coordinator, complete up to two courses (12 UOC) from a related coursework program.

### Space Systems

The Master of Systems Engineering in Space Systems is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or extensive professional experience who wish to develop a high level understanding of the principles and practices of space systems and to strengthen their skills in this area.

#### Stream Structure

Students undertaking the Master of Systems Engineering in Space Systems are required to complete 8 coursework courses (48 UOC). Students must complete the four compulsory MSysEng courses and at least two specialist courses from the list below and up to two electives. Not all courses will be available in a particular year.

#### Compulsory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>ZEIT8226</td>
<td>Systems Engineering Practice</td>
</tr>
<tr>
<td>ZEIT8230</td>
<td>Requirements Engineering</td>
</tr>
<tr>
<td>ZEIT8231</td>
<td>Test and Evaluation</td>
</tr>
<tr>
<td>ZEIT8403</td>
<td>Capability Option Analysis</td>
</tr>
</tbody>
</table>

#### Space Systems Specialist Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZEIT8007</td>
<td>Space Operations</td>
</tr>
<tr>
<td>ZEIT8008</td>
<td>Space Systems Design</td>
</tr>
<tr>
<td>ZEIT8009</td>
<td>Global Navigation Satellite Systems</td>
</tr>
<tr>
<td>ZEIT8012</td>
<td>Space Systems Engineering</td>
</tr>
<tr>
<td>ZEIT8013</td>
<td>Space Applications 1</td>
</tr>
<tr>
<td>ZEIT8219</td>
<td>Satellite Communications</td>
</tr>
<tr>
<td>ZEIT8221</td>
<td>Spaceborne Imaging Technology</td>
</tr>
</tbody>
</table>

#### Electives

Students may, with the approval of the Postgraduate Coordinator, complete up to two courses (12 UOC) from a related coursework program.

### Systems Engineering

The Master of System Engineering can be undertaken as a stand-alone program. The generic nature of the program allows students to select course offerings from a broad range of related courses from within the program.

Students undertaking the Master of System Engineering in Systems Engineering (generic) are required to take 8 coursework courses (48 UOC) from the courses set out below. Students must complete four compulsory courses (24 UOC) and four elective courses (24 UOC) (or from the electives in the various specialisations in the MSysEng program). Not all elective courses will be available in a particular year.

#### Compulsory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZEIT8226</td>
<td>Systems Engineering Practice</td>
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<tr>
<td>ZEIT8230</td>
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<tr>
<td>ZEIT8231</td>
<td>Test and Evaluation</td>
</tr>
<tr>
<td>ZEIT8403</td>
<td>Capability Option Analysis</td>
</tr>
</tbody>
</table>

#### Electives

Students may, with the approval of the Postgraduate Coordinator, take up to two courses (12 UOC) from other coursework programs.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZBUS8302</td>
<td>Logistics</td>
</tr>
<tr>
<td>ZEIT8007</td>
<td>Space Operations</td>
</tr>
<tr>
<td>ZEIT8010</td>
<td>Marine Technology</td>
</tr>
<tr>
<td>ZEIT8136</td>
<td>Software Project Management</td>
</tr>
<tr>
<td>ZEIT8232</td>
<td>Technology Foresight</td>
</tr>
<tr>
<td>ZEIT8302</td>
<td>Project Administration</td>
</tr>
<tr>
<td>ZEIT8303</td>
<td>Project Mgmt Body of Knowledge</td>
</tr>
<tr>
<td>ZEIT8308</td>
<td>Sys Dynamics Proj Organisation</td>
</tr>
<tr>
<td>ZEIT8402</td>
<td>Problem Structuring Techniques</td>
</tr>
<tr>
<td>ZEIT8404</td>
<td>Operations Research</td>
</tr>
<tr>
<td>ZEIT8412</td>
<td>Simulation</td>
</tr>
<tr>
<td>ZINT8326</td>
<td>Project Mngmt</td>
</tr>
</tbody>
</table>
Test and Evaluation

The Master of Systems Engineering in Test and Evaluation is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or extensive professional experience who wish to develop a high level understanding of the principles and practices of Test and Evaluation and to strengthen their skills in this area.

Stream Structure

Students undertaking the Master of Systems Engineering in Test and Evaluation are required to complete 8 coursework courses (48 UOC). Students must complete the four compulsory MSysEng courses and at least two specialist courses from the list below and up to two electives. Not all courses will be available in a particular year.

Compulsory Courses

- ZEIT8226 Systems Engineering Practice
- ZEIT8230 Requirements Engineering
- ZEIT8231 Test and Evaluation
- ZEIT8403 Capability Option Analysis

Test and Evaluation Specialist Electives

- ZEIT8402 Problem Structuring Techniques
- ZEIT8404 Operations Research
- ZEIT8405 Quantitative Operations Research
- ZEIT8412 Simulation
- ZPEM8309 Applications of Data Analysis

Electives

Students may, with the approval of the Postgraduate Coordinator, complete up to two courses (12 UOC) from a related coursework program.

Weapons and Ordnance

The Master of Systems Engineering in Weapons and Ordnance is designed for postgraduate scholars with appropriate undergraduate qualifications in a relevant discipline and/or extensive professional experience who wish to develop a high level understanding of the principles and practices of weapons and ordnance and to strengthen their skills in this area.

Stream Structure

Students undertaking the Master of Systems Engineering in Weapons and Ordnance are required to complete 8 coursework courses (48 UOC). Students must complete four core courses, at least two specialist courses and up to two electives from the list below. Not all courses will be available in a particular year.

Compulsory Courses

- ZEIT8226 Systems Engineering Practice
- ZEIT8230 Requirements Engineering
- ZEIT8231 Test and Evaluation
- ZEIT8403 Capability Option Analysis

Weapons and Ordnance Specialist

- ZEIT8233 Explosive Ordnance Technology
- ZEIT8235 Tech Regulation of Ordnance
- ZEIT8506 Weapons Engineering
- ZINT8301 Firepower and Protection

Electives

As per MSysEng, or students may, with the approval of the Postgraduate Coordinator, complete up to two courses (12 UOC) from a related coursework program.

Research Project

The option of undertaking a research project worth 12 UOC (ZEIT8297 Project Report -Systems Engineering) is available to Masters students who obtain a high credit average or better in four courses and is subject to approval of the Postgraduate Coordinator. The project is recommended for those with a strong interest in pursuing original research in a particular area or intending to undertake a higher research qualification. Students undertaking the project are unable to enrol in courses from other coursework programs.
CAPABILITY MANAGEMENT

Capability development and management in large organisations, such as Defence involves significant capital expenditure and includes the scanning and identification of technologies, equipment and systems, technology development, contracting and acquisition, and organisational change. Strong managerial and technical skills and expertise are required to manage this systems capability life cycle effectively. Capability development is also a technical and management challenge for non-Defence organisations. The Capability Management program addresses this challenge and is directed toward developing a thorough understanding of the managerial and technical skills and expertise relevant to planning and acquisition of complex technology and systems. Its primary, but not exclusive, focus is in the area of Defence. This is a cross disciplinary postgraduate program for managers and professionals working in this field. It brings together an engineering perspective in system design and project management and a management perspective in strategy and process management.

8399 - Capability Management

School: School of Engineering and Information Technology

Typical Duration: 1 year

Minimum UOC for Award: 48 units of credit

Typical UOC per Semester: 24 units of credit

Award: Master of Capability Management

Program Description

The Master of Capability Management is a postgraduate award offered by the School of Engineering and Information Technology. It is designed for postgraduate scholars and professional managers with appropriate undergraduate qualifications and/or extensive relevant professional experience who wish to gain a more detailed understanding of the managerial and technical skills and expertise relevant to planning and acquisition of complex technology and systems.

Program Objectives and Learning Outcomes

On successful completion of the Master of Capability Management, students will have the ability to:

- understand and apply technical concepts and tools to enhance organisational capabilities;
- structure and analyse complex problems;
- communicate clearly, persuasively and cogently in writing; and
- incorporate ethical and social considerations in developing strategies.
Program Structure

Students undertaking the MCapMgt are required to take eight coursework courses (48 UOC). Students must complete at least three of the four core courses and draw on the list of scheduled courses below to complete the remaining program requirements.

Core Courses
- ZBUS8302 Logistics
- ZINT8326 Project Management
- ZEIT8226 Systems Engineering Practice
- ZEIT8230 Requirements Engineering

Electives
- ZBUS8101 Strategic Management
- ZBUS8105 Finance and Investment Appraisal
- ZBUS8110 Business Risk Management
- ZBUS8111 Portfolio and Program Management
- ZBUS8147 Business of Managing Projects
- ZBUS8203 Change Management
- ZBUS8303 Strategic Procurement and Outsourcing
- ZBUS8304 Managing Technical Innovation
- ZEIT8010 Marine Technology
- ZEIT8014 Electronic Systems
- ZEIT8136 Software Project Management
- ZEIT8138 Systems Planning
- ZEIT8231 Test & Evaluation
- ZEIT8302 Project Administration
- ZEIT8303 Project Management Body of Knowledge
- ZEIT8307 System Dynamics Modelling
- ZEIT8308 System Dynamics of Project Organisation
- ZEIT8402 Problem Structuring Techniques
- ZEIT8403 Capability Option Analysis
- ZEIT8404 Operations Research
- ZEIT8412 Simulation
- *ZEIT8503 Aerospace Vehicle Technologies
- *ZEIT8704 Vehicles and Mobility
- *ZINT8301 Firepower and Protection.

*Elective Courses ZEIT8503, ZEIT8704 and ZINT8301 are only available to CTMC students or other Australian Defence Organisation personnel on approval from the Director CTMC.

Students may, with School approval, take up to two courses (12 UOC) from other coursework programs.
How do I find the latest course information?

The UNSW Online Handbook is automatically updated for any late changes to course offerings, timetable changes or lecturer information.

Add a favourite to this web link:
www.handbook.unsw.edu.au/2013

or access the Online Handbook from the myUNSW homepage.

The easiest way to search the Online Handbook is to:
1. Click on “Postgraduate Study”;
2. In the left side panel – click on search “Programs by Faculty”;
3. Select “UNSW Canberra at ADFA”;
4. Select your program;
5. The “Program Description” will identify the degree and its majors and courses;
6. If you wish to search for other courses – go to the left panel and click on “Courses A-Z”;
7. All UNSW Canberra courses are coded with a Z prefix.

How do I find the semester course offerings?

A complete table-format list of all Postgraduate Course offerings for the year is available from the UNSW Canberra Student Gateway website, see -

Course offering information is also available via the “Further Information:
See Class Timetable” link on the Online Handbook for each course.

How do I find my class room?

Your timetable details will be listed, e.g. Lecture Theatre North 12 (Z-32-LT12)

This coding means: Z = ADFA campus; 32 = Building 32; LT = Lecture Theatre 12

For further information about room locations see -
www.unsw.adfa.edu.au/student/timetables/index

See the inside back cover of this guide for a copy of the ADFA campus map.

How do I find my timetable information?

When you select a course on the Online Handbook, click on “Further Information:

See Class Timetable” in the course header. This link will provide you with:
- class time
- class activities, e.g. tutorials or lab classes
- room and venue details and
- lecturer name.

How do I access future semester information?

Course offerings and timetable information is generally available via the UNSW Online Handbook:

Semester 1 mid October
Semester 2 1st week of May
Using the UNSW CANBERRA Course Catalogue

Code Prefix
The letters at the start of a course code show which school is running the course. General Education and Interdisciplinary courses, which are run by all schools, are distinguished by a separate prefix.

ZBUSXXXX – Course offered by BUS
ZEITXXXX – Course offered by SEIT
ZHSSXXXX – Course offered by HASS
ZPEMXXXX – Course offered by PEMS

Postgraduate
ZXXX7000 – Graduate Certificate
ZXXX8000 – GradDip/Masters
ZXXX9000 – Research Project Courses

If a course description includes a prerequisite, you cannot enrol in the course until you have completed the specified course/s (or equivalent).

If a course description includes an exclusion, it means you cannot enrol in the course if you have already completed the specified course/s (or equivalent).

Some courses may indicate that you require School Approval before your enrolment is confirmed. You will need to complete an Enrolment Variation form, available from SAS, if this is the case.

Units of Credit
All courses listed in the Course Catalogue are 6 UOC unless specified otherwise.

ZBUS7101 Introduction to Management
HPW3
This course offers a general introduction to the field of management appropriate to the needs of students who have not undertaken formal study in the area before. It introduces management theories, providing opportunities for students to explore concepts and apply them to their own experiences.

ZBUS7102 Introduction to Project Management
HPW3
This course identifies and analyses the components of project management, the associated management tools and procedures and the roles and responsibilities of project managers. Project Management is a critical discipline within engineering and this course provides a useful adjunct to the courses offered in Project Management by other schools, by approaching project management from the perspective of a business manager who may not be an engineer.

ZBUS7103 Economics for Managers
HPW3
The course is an introduction to economics with a special focus on the managerial applications. Topics covered may include the operation of markets generally in the Australian context, business decision making, the role of government in the economic environment, the determinates of system-wide levels of economic activity and the drivers of change in major economic aggregates.

ZBUS8101 Strategic Management
HPW3
The objective of this course is to investigate the role of strategy in achieving organisational success in commercial environments. It examines the nature of organisational objectives, capabilities and strategies and, in particular, the role of corporate and business strategies as determinants of superior performance. This course also addresses corporate social responsibility in strategic management.

ZBUS8102 Organisational Behaviour
HPW3
This course analyses the behaviour of individuals and groups within organisational structures and the interactions that occur between the individual, the group and the organisation. Students will analyse the relationships between patterns of human behaviour and management concepts and practices, and will develop the conceptual framework required to assess the effectiveness and efficiency of those practices.

ZBUS8103 Strategic Human Resources
HPW3
This course adopts a general management approach to strategic human resources. The course complements courses in management strategy. The course is beneficial to those seeking an advanced level of human resources. The course is beneficial to professionals working in human resource management as well as professionals working globally.
ZBUS8105  Finance and Investment Appraisal  
HPW3  
This course introduces investment decision making techniques. It focuses on corporate finance from an investor’s perspective. It also provides an explanation of financing options, including how financial markets operate and the main instruments of financial markets.

ZBUS8106  Public Policy  
HPW3  
The Public Policy course is designed to meet the needs of people involved in the development and implementation of public policy at all levels of government. It is based on the proposition that public policy making is a complex political, social and bureaucratic activity that involves power, interests and compromise as well as the deployment of analysis. The process is just as important as the content. The course focuses on the understanding of agenda formation and the institutional locations of policy making, as well as the techniques and perspectives required for useful policy analysis. The Public Policy course complements other courses offered in the Schedule for the Master of Business, including Public Management and Public Law. The course will also help policy practitioners apply insights gained from other Master of Business courses.

ZBUS8108  Accounting and Financial Management  
HPW3  
An introduction to financial management and its terminology and how financial information is used for decision making in a business environment. This course does not require existing accounting, finance or economic knowledge. It covers key financial management concepts in applied situations, designed to give students confidence in using financial information in the workplace.

ZBUS8109  Business Law  
HPW3  
Business Law aims to provide an introduction to, and general understanding of, the law in key legal areas applying within a private or public business context. Topics covered in the course include: the Australian legal system, contract law, torts law, competition and consumer law, sale of goods legislation, business entities, intellectual property law and agency law and ethics. The purpose of the course is to equip students with sufficient knowledge of the legal system and law to understand the legal implications of business actions. Legal analysis and problem-solving skills are developed throughout the course. The course is intended for managers who are not lawyers and no prior knowledge of law is required.

ZBUS8110  Business Risk Management  
HPW3  
Businesses operate in risky environments. The aim of this course is to provide knowledge and understanding about how to assess and manage risks and to determine probabilities of risk. It includes risk analysis techniques, crisis planning, managing program and project risk, and contingency planning.

ZBUS8111  Portfolio and Program Management  
HPW3  
This course is designed to introduce concepts to manage complex projects that involve technical uncertainty and ambiguity and the means to implement them. Topics include: portfolio and program management, risk management, governance, and advanced planning/scheduling techniques. It includes known advanced project management techniques as well newer cutting edge techniques. Enrolment in this course assumes the completion of introductory project management courses or a good knowledge of project management foundations.

ZBUS8148  Economic World View  
HPW3  
This course offers students a mature foundation in how economists see and think about the world. It then shows how conceptual frameworks and tools of analysis in economics can be used to generate insight into and understanding of contemporary economic, political and social issues, events and policies.

ZBUS8147  The Business of Managing Projects  
HPW3  
This course provides students with the business side of managing a single project. This unit is designed to help students acquire in-depth knowledge of the business aspects of project management including managing stakeholders, cost estimation, leadership and management skills. This unit also seeks to equip students with an understanding of how to apply knowledge in managing projects in different contexts. It provides the skills and knowledge for students to understand the human and business side of project management.

ZBUS8201  Leadership  
HPW3  
This course develops an understanding of leadership as a holistic process that involves influencing people both inside and outside the organisation. The dynamics of interpersonal influence processes are investigated, with particular attention given to the broader conceptualisation of leadership style, such as ‘transformational’ and ‘transactional’ leadership.

ZBUS8203  Change Management  
HPW3  
The course introduces students to a broad range of current change literature including the problems and key issues relating to managing change in organisations. Key topics include metaphors for understanding change, theories of planned change, the role of the change agent, diagnosis, responses to change, the process of planned change, interventions (techno-structural, strategic, cross-cultural), managing and leading change, current issues and challenges.
ZBUS8204 Marketing
HPW3
The course offers a comprehensive survey of the vocabulary, concepts, and techniques of marketing. The course develops a systematic approach for examining the successful delivery of product, place, promotion, pricing, positioning, and service, with the end goals of creating product value and customer satisfaction. The course aims to integrate marketing analysis and research plans, information on consumer behaviour, target segments, strategy development, brand management, global marketing, and social responsibility. The course is designed for managers in both profit and non-profit organisations and examines marketing across a variety of industries and institutions.

ZBUS8205 Business Ethics
HPW3
The purpose of this course is to strengthen your ability to anticipate, critically analyse and appropriately respond to some of the critical ethical and social challenges that confront managers in a global economy. This course provides a framework for analysing and evaluating the beliefs and values that underlie ethical controversies. You will examine the strong influence of cultural traditions and dominant beliefs on our attitudes towards business and discuss the relevance of traditional ethical theories (such as utilitarianism, rights and contract theories) to business decisions. This course examines the contextual, organisational and managerial issues associated with managers operating in a global environment both in the private and public sector environments. In considering the public sector the course will assess the different approaches to stakeholder management and encourage critical evaluation of different perspectives on efficiency, sustainability, stakeholder management, devolution, ethical codes of behaviour, government regulatory failure, whistle blowing and administrative appeals.

ZBUS8207 Managing in the Public Sector
HPW3
This course critically assesses the key elements of delivering public sector outputs and outcomes. The course aims to expose students to the key mechanisms by which public sector managers might exercise control over resources within their organisations, evaluating personnel, information management and financial management; understanding the related debates within the Australian public sector. To this end the course focuses on managing people, information, and money. The course begins by exploring the rationale of the outputs and outcomes framework. Students then explore the options and constraints within the public sector relating to human resource management. Students then focus on the availability, quality and timeliness of information required to deliver public outputs and outcomes. The third strand of the course relates to obtaining the best value from limited financial resources in the Australian public sector.

ZBUS8208 Humanitarian Logistics
HPW3
The specific concepts and techniques of humanitarian logistics are studied in this course. It addresses topics in humanitarian aid and the various phases of delivery; supply and sourcing; preparedness and prevention and reconstruction and development. The logistical requirements for each phase is studied in detail. Various civilian and military involvements are covered. Collaboration along the total supply chain from the unknowns of the disaster; whether from natural causes or man-made conflicts in fragile states, to the unknowns arising from donors’ contributions, and to the unknowns of the logistical infrastructures and support organisations along the total supply chain are studied.

ZBUS8301 Innovation Strategy and Management
HPW3
This course is about the strategic management of innovation in modern organisations and the interaction of innovation processes and the wider economic and social environment. The course aims to show; how innovation processes maybe conceptualised; the helpfulness of thinking about innovation in a systems framework in which business organisations are key players; the meaning and contributions of technological innovation; widely understood; the ways in which innovation is used strategically by business organisations to pursue competitive advantage; the dynamic relationships between innovation and economic competition, the socio-economic benefits and costs of innovation; and the potential for government innovation policy. Ideas and analysis are tied into the Australian experience of innovation and questions raised about the downsides as well as merits of innovation.

ZBUS8302 Logistics
HPW3
In this course students examine the basic concepts and techniques of logistics management within the framework of an integrated logistics system. Various civilian and military applications are considered.

ZBUS8303 Strategic Procurement and Outsourcing
HPW3
This course offers analysis of the process of capability development and strategic procurement, with special reference to the public sector. It may be expected that defence procurement will receive particular attention. Assessment may include a significant research-based component.

ZBUS8304 Managing Technological Innovation
HPW3
This course offers perspectives on the practice of managing technological innovation, drawing on case studies from a variety of contexts. The innovation process is considered in a range of industries and different organisations, large and small. The course is directed towards drawing lessons for improved management of the innovation process, and the successful introduction of new products, processes and services.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZBUS8305</td>
<td>Professional Practice</td>
<td>This course requires students to reflect on their role as a professional and to submit an essay in an approved form to explore issues related to their professional practice in management. To be eligible to enrol in this course a student must already have completed at least 12 days of approved professional education short courses. This course may only be used for credit at the Graduate Diploma and Masters levels.</td>
</tr>
<tr>
<td>ZBUS8306</td>
<td>Logistics (CTMC)</td>
<td>This course is tailored to meet the requirements of the Capability and Technology Management College (CTMC). The aim of the course is to examine the basic concepts and techniques of logistics management within the framework of an integrated logistics system. The focus is on logistic support to capability, notably logistics aspects of procurement and through-life support. Various civilian and military applications are considered. The course covers selected aspects of logistics requirements analysis, in particular such topics as: reliability, maintainability, availability and supportability of systems; system effectiveness; functional and operational requirements; safety; logistics planning; life-cycle costing; materials and inventory management. Through a series of lecture presentations, discussions and workshops, students will develop an understanding of how to manage integrated logistics.</td>
</tr>
<tr>
<td>ZBUS8308</td>
<td>Business Planning</td>
<td>This course addresses key aspects of planning and managing a business. It includes business case analysis, writing a business proposal and communicating business outcomes to different audiences. The course also examines the evaluation of business information, selecting appropriate sources and targeting your audience.</td>
</tr>
<tr>
<td>ZBUS8309</td>
<td>Project Management</td>
<td>This course covers all aspects of managing a project such as project definition and scoping, cost and quality planning, managing the risk, financial and legal aspects of the project, and completing the project. The course provides students with the opportunity to develop an understanding of project management principles and practices.</td>
</tr>
<tr>
<td>ZBUS8501</td>
<td>Research Project - Business</td>
<td>Students who achieve a distinction average over a minimum of four (4) Masters level courses may apply to the Head of School to undertake a research project over one session of approximately 6,000 words in a discipline area that is central to their study program. The project will provide an opportunity for students to research an area that has practical relevance to their workplace environment. Approval will be subject to the School being able to provide appropriate resources.</td>
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<tr>
<td>ZBUS8502</td>
<td>Research Project - Business</td>
<td>Students who achieve a distinction average over a minimum of six (6) Masters level courses may apply to the Head of School to undertake a research project over two sessions of approximately 12,000 words in a discipline area that is central to their study program. The project will provide an opportunity for students to research an area that has practical relevance to their workplace environment. Approval will be subject to the School being able to provide appropriate resources.</td>
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<tr>
<td>ZEIT6521</td>
<td>Digital Signal Processing and Control</td>
<td>This course is tailored to meet the requirements of the Capability and Technology Management College (CTMC). The aim of the course is to examine the basic concepts and techniques of logistics management within the framework of an integrated logistics system. The focus is on logistic support to capability, notably logistics aspects of procurement and through-life support. Various civilian and military applications are considered. The course covers selected aspects of logistics requirements analysis, in particular such topics as: reliability, maintainability, availability and supportability of systems; system effectiveness; functional and operational requirements; safety; logistics planning; life-cycle costing; materials and inventory management. Through a series of lecture presentations, discussions and workshops, students will develop an understanding of how to manage integrated logistics.</td>
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<tr>
<td>ZEIT6522</td>
<td>Electrical and Mechanical Plant</td>
<td>This course gives students a practical understanding of electrical and mechanical plant. Topics include: magnetic circuits and magnetic materials; single phase and three phase transformers; real and reactive power; electromagnetic energy conversion principles; principle of rotating electric machines, DC machines, steady-state behaviour and speed control, electrical power distribution. Mechanical plant; principles of design and machine selection. Mechanical power for electric generators and alternators. Prime movers; water turbines; constant-speed drives. Heating, ventilation and air conditioning plant: water-handling and air-handling plant; environmental control. Lifting and carrying plant: cranes, gantries, forklift and straddle trucks; surface and air vehicles for heavy transport. Manufacturing plant: processing of raw materials through to assembly of finished products.</td>
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<tr>
<td>ZEIT6523</td>
<td>Pattern Analysis and Image Understanding</td>
<td>The course focuses on Pattern Analysis and Image Understanding focuses on techniques that can be used for extracting information and finding patterns from available data and information related to object classes, complex hidden structures and trends. The course covers the fundamentals of methodologies and approaches to pattern recognition and image analysis. Students will acquire knowledge in machine intelligence systems designed for decision making in automation and information handling where manual analysis is extremely difficult or impossible.</td>
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</table>
ZEIT6551  Rotorcraft Engineering
HPW3  Prerequisite: ZEIT1502

Students will be exposed to a number of topics in rotorcraft engineering. Basic helicopter configurations, such as co-axial, tandem and autogiro, are compared. Course starts with actuator disc theory and moves to more sophisticated blade element techniques for both vertical and forward flight. Special cases include autorotation and flight in ground effect. Students are introduced to the use of dimensional analysis to reduce rotorcraft flight test data and standardise test results.

Design considerations such as ground resonance, crash worthiness and fatigue safe life will also be discussed. Linearised models of helicopter dynamics are derived. The structural and inertial coupling terms in the equation of motion will be identified. The aerodynamic stability derivatives and their relations to the stability and performance of the helicopter will be analysed. Dynamics of the helicopter will be studied in the presence of wind disturbances.

To begin with, a brief review of helicopter aerodynamics will be carried out. Equations of motion of the helicopter will be derived. The structural and inertial coupling terms in the equation of motion will be identified. The aerodynamic stability derivatives and their relations to the stability and performance of the helicopter will be analysed. Dynamics of the helicopter will be studied in the presence of wind disturbances.

To provide better understanding of the subject, students will be asked to develop a simulation model of the helicopter in the Matlab Simulink environment. The approach will be to build individual components of the helicopter using first principles and rectification of helicopter vibration problems will be examined. Introduction of aeroelastic effects in the rotor system will be provided so that students are able to understand dynamic effects such as flap-lag flutter, ground and air resonance.

ZEIT6552  Advanced Rotorcraft Engineering
HPW4  Prerequisite: ZEIT6551

This course aims to develop an understanding of the dynamics of the helicopter and how improvements in the dynamics can be made. The course covers helicopter flight dynamics, modelling, simulation, vibration and the stability and control of helicopters. The causes, identification and rectification of helicopter vibration problems will be examined. Introduction of aeroelastic effects in the rotor system will be provided so that students are able to understand dynamic effects such as flap-lag flutter, ground and air resonance.

The course provides an introduction to the principles of helicopter aerodynamics and how improvements in the dynamics can be made. The course covers helicopter flight dynamics, modelling, simulation, vibration and the stability and control of helicopters. The causes, identification and rectification of helicopter vibration problems will be examined. Introduction of aeroelastic effects in the rotor system will be provided so that students are able to understand dynamic effects such as flap-lag flutter, ground and air resonance.

To begin with, a brief review of helicopter aerodynamics will be carried out. Equations of motion of the helicopter will be derived. The structural and inertial coupling terms in the equation of motion will be identified. The aerodynamic stability derivatives and their relations to the stability and performance of the helicopter will be analysed. Dynamics of the helicopter will be studied in the presence of wind disturbances.

To provide better understanding of the subject, students will be asked to develop a simulation model of the helicopter in the Matlab Simulink environment. The approach will be to build individual components of the helicopter using first principles and rectification of helicopter vibration problems will be examined. Introduction of aeroelastic effects in the rotor system will be provided so that students are able to understand dynamic effects such as flap-lag flutter, ground and air resonance.

ZEIT6572  Land Vehicles
HPW4  Prerequisite: ZEIT1502

This course following on from Land Mobility and Weapons provides an analytical foundation for Land Vehicle Design. Students will be exposed to a range of issues including propulsion choices and vehicle dynamics. The course will be delivered through a combination of lectures and tutorials. The course is a hybrid course in which enrolment by students in undergraduate and postgraduate programs is permitted.

ZEIT6573  Naval Architecture
HPW4  Prerequisite: ZEIT1502

This course provides an introduction to the principles of naval architecture and ship design. Students will be exposed to a range of vessels and their behaviours. Key topics include ship stability, ship structures and the ship performance. The course will be delivered through a combination of lectures and tutorials. The course is a hybrid course in which enrolment by students in undergraduate and postgraduate programs is permitted.

ZEIT6574  Marine Engineering
HPW4  Prerequisite: ZEIT1502

This course provides an introduction to the principles of Marine Engineering and ship operations. Students will be exposed to a range of system configurations and their characteristics. Key topics include ship propulsion systems and auxiliary ship systems and equipment. The course will be delivered through a combination of lectures and tutorials. The course is a hybrid course in which enrolment by students in undergraduate and postgraduate programs is permitted.

ZEIT7101  Computational Problem Solving
HPW3

Computation underpins our ‘daily digital life’: Students taking this course will receive a foundational background in computational problem-solving. On the theoretical side this includes an introduction to logic, along with the scientific and engineering methodologies, design principles, and a grounding in the theories and models of computation. In parallel practical skills of problem structuring, solution design, algorithm writing, structured programming, and data representation within a computational environment will be acquired. Theoretical and practical lessons are contextualised in the modern IT environment with introductions to core computer science topics such as operating systems, networks, simulation, and programming languages. Students will design and implement a number of solutions to computational problems - bringing together the theory, milieu, and practical skills acquired in the course.
ZEIT7105  Introduction to the IT Profession
HPW3
Introduction to the Information Technology profession outlines the IT discipline including a brief review of its history, a survey of how IT has become pervasive in society, the concept of an IT profession and the issues the IT profession faces. The course will then turn to a brief historical review of the development of computing technologies, software and its usability, and point to some likely future technologies. Finally, the course will outline how IT professionals work together and how the IT profession integrates with other professions in the broader workplace and society.

ZEIT7106  Introduction to Systems Thinking
Introduction to Systems Thinking provides students with the basic tools for problem solving in an organisational context where information is a key part of the solution. The course begins by introducing the fundamental concepts needed to understand systems thinking. This is followed by an overview of several holistic approaches for improving organisational performance, including General Systems Theory (GST), organisational cybernetics, Peter Senge’s Fifth Discipline, and complexity science. The course then describes several methods and techniques that can be used to as part of a system intervention, ranging from soft system methods such as Soft System Methodology (SSM) through to more hard system methods such as systems and software engineering.

ZEIT7203  Communications and Information Systems
HPW3
This course provides an overview of the fundamental elements required to provide telecommunication services and management information systems. Communication topics include: fundamentals of electric signals; modulation and multiplexing techniques; management of the electromagnetic spectrum and acts controlling its use; video signals and systems; radio wave propagation; basic antenna theory; receiver and transmitter design; types of communications systems; and local and wide area networks. The fundamentals of information systems are presented including: information processing concepts and architectures; operating systems; databases; software languages and development; and the storage, retrieval and management of information.

ZEIT7207  Occasional Elective 1
HPW3
The syllabus for these courses changes from one occasion to the next, allowing the presentation of a relevant topic by a visiting academic or a special lecture course on a trial basis.

ZEIT7208  Occasional Elective 2
HPW3
The syllabus for these courses changes from one occasion to the next, allowing the presentation of a relevant topic by a visiting academic or a special lecture course on a trial basis.

ZEIT7401  Introduction to Operations Research
HPW3
Operations research - a topic conceived in the Second World War by the US military - is the science of understanding and analysing problems to come up with a recommended course of action. It mimics the Military Appreciation Process. This course introduces students to the wide variety of models in Hard and Soft Operations Research (OR). The course starts with an overview of OR, its history, the code for best practice, and problem formulation. Hard OR topics will include linear programming, network theory, project management, trend analysis, probability theory, queuing theory and game theory. Soft OR topics will include an introduction to soft OR and simulation.

ZEIT7601  Introduction to Blast
HPW3

ZEIT7603  Occasional Elective 1
HPW3
Occasional electives are given by members of staff, external lecturers or visitors on a topic of immediate relevance to civil engineering.

ZEIT7604  Occasional Elective 2
UOC9
HPW3
Occasional electives are given by members of staff, external lecturers or visitors on a topic of immediate relevance to civil engineering.

ZEIT7605  Occasional Elective 3
UOC12
HPW3
Occasional electives are given by members of staff, external lecturers or visitors on a topic of immediate relevance to civil engineering.

ZEIT8001  Special Elective 1: Project Management
HPW3
Special electives are given by members of staff and external lecturers or visitors on a topic of immediate relevance. Alternatively, a literature review of the technology in a specific area or a design project of appropriate intellectual and technical challenge may be undertaken.

ZEIT8007  Space Operations
HPW3
This course examines issues in space operations, such as orbits (including orbit perturbations and orbit determination), launch on-orbit, rendezvous, re-entry, space environment, space law, coordination. Operations aspects of space applications are examined, such as communications, navigation, remote sensing, space surveillance and space situational awareness. Mission aspects of these applications are also examined, including mission analysis, mission design and mission operations. A brief overview of military space systems and applications is also given.
This course examines the design of space systems, including both ground and space segments. It covers issues such as astrodynamics, satellite subsystems, satellite propulsion, satellite attitude determination and control, aerospace structures and satellite integration. It concludes by examining systems aspects of space applications, such as communications, navigation and remote sensing.

ZET8009 Global Navigation Systems

HPW3

This course examines current Global Navigation Satellite Systems (GNSS). The course initially explores how these systems work, and the general requirements levied on navigation systems. A range of augmentation techniques are then examined before the course delves into the linear and extended Kalman filtering techniques that are used to improve navigation performance in the face of noise and bias in several inputs. The course provides an overview of these techniques and is supported by appropriate exercises to illustrate the behaviour or application of each system or technique. Inertial navigation systems are then discussed in order to compare and contrast the systems as well as to be able to discuss combined systems. The course concludes by examining the benefits that estimation techniques provide in real world systems.

ZET8010 Marine Technology

HPW3

This course provides an introduction to the principles of naval architecture and ship operations from a marine engineering perspective. Students will be exposed to a range of vessels and their characteristic behaviours. Key topics include ship stability, ship structures, the ship design process, propulsion systems, auxiliary systems, standards and certification. The course will be delivered through a combination of lectures and tutorials.

ZET8012 Space Systems Engineering

HPW3

Space Systems Engineering provides those studying the engineering of space systems with a grounding in the discipline of systems engineering, applying that body of knowledge to space systems by way of example throughout the course. The course begins by providing a framework within which to develop an understanding of the processes and management practises associated with the systems engineering discipline. The underlying systems engineering process is presented and is shown to be applied repeatedly throughout the entire system lifecycle. Attention then focuses on the broad topic of systems engineering management and some of the activities normally associated with engineering management are detailed. The course also introduces tools commonly used in systems engineering and details how systems engineering coexists with other disciplines (particularly Project Management, Quality Management and Integrated Logistics Support Management). The systems engineering body of knowledge is reinforced by the use of example and tutorials throughout the course. Students are further practised through a series of individual exercises that reinforce the application of the discipline of systems engineering to the specific nature of space systems.

ZET8013 Space Applications 1

HPW3

This course examines two major applications; satellite communications, and global navigation satellite systems (GNSS). This first half examines satellite communications systems, including; orbits for communications applications, appropriate frequencies, antennas, modulation and multiplexing, multiple access techniques, channel coding, propagation, system hardware for space and ground segments, and link budget analysis. The second half of this course examines current GNSS. The course initially explores how these systems work, and the general requirements levied on navigation systems. A range of augmentation techniques are then examined before the course delves into the linear and extended Kalman filtering techniques that are used to improve navigation performance in the face of noise and bias in several inputs. The course provides an overview of these techniques and is supported by appropriate exercises to illustrate the behaviour or application of each system or technique. Inertial navigation systems are then discussed in order to compare and contrast the systems as well as to be able to discuss combined systems. The course concludes by examining the benefits that estimation techniques provide in real world systems.

ZET8014 Electronic Systems Technologies

HPW3

This course provides an overview of the technology elements required to provide communications systems, information systems; and ground, airborne and spaceborne surveillance systems. Communication topics include: the electromagnetic spectrum; fundamentals of electric signals; signal coding; modulation and multiplexing; multiple access and frequency spreading; radio wave propagation; transmission media, basic antenna theory; receiver and transmitter design; types of communications systems; and networking and internetworking. The fundamentals of information systems are presented including: information processing concepts and architectures; operating systems; databases; software languages and development; and the storage, retrieval and management of information. Surveillance topics include an examination of the portions of the electromagnetic spectrum used for surveillance; optics fundamentals; image intensification techniques; thermal imaging; fundamentals of lasers and laser systems. The underlying principles of radar systems are also covered, including the environmental considerations relating to radar design and operation, the radar range equation, pulse radar, CW radar, and CW-FM radar.
This course aims to provide a solid understanding of the theory and practice used to manage information security on computer systems and networks. In more detail, topics include: an overview of computer and communications security, risk assessment, human factors, identification and authentication, access controls, malicious software, software security, O/S security, trusted computer systems, network attacks and defences, firewalls, intrusion detection and prevention, database security, legal and ethical issues.

This course provides details of the history, theoretical foundations, and current state of cryptographic algorithms. Topics may include classical cipher design and analysis; modern private key block cipher design, details, modes of use and analysis; stream ciphers; an introduction to number theory; public key encryption algorithms; digital signatures and hash functions; key management, X.509 certificates and certificate authorities; quantum computing and quantum cryptography.

This course provides students with an overview of the technological and managerial issues associated with electronic commerce (e-commerce). The different categories of e-commerce transactions are examined together with the technologies and applications that underpin them. Aspects of the strategic and legal environments in which e-commerce applications are implemented are also examined.

This course addresses the evolution of Information Operations (IO), from its roots in early warfare, through recent manifestations as Command and Control Warfare and Information Warfare, to its modern conception as a strategy for conflict and competition in the information age. The course focuses on the present day formulation of IO as a broad range of military and non-military activities intended to achieve information and decision superiority. The course complements related studies in command and control, decision support, information management and knowledge management.

This course covers the use of Enterprise Architecture in designing and implementing strategic plans involving the use of IT. It covers, in particular, the governance of IT, information management, Enterprise and business architecture, business risk management, emerging technology monitoring, and managing solution architecture.

This course aims to further the student’s knowledge of Internetworking with TCP/IP. In particular, it examines advanced IP addressing, routing with advanced routing protocols and network security.

Occasional topics of relevance in the area of Information Technology, given by visitors or external lecturers or members of staff.

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This course introduces students to the basic concepts of software project management. An overview of software life cycle processes is provided. This is followed by an examination of several key life cycle processes and activities, including; software development, risk management, software measurement, verification, validation, and quality assurance.

This course will cover systems administration in depth. While there are numerous brands of systems in use today, the fundamental architecture remains constant. As such, the practical elements of this course will be based on a single operating system, Linux. Hence some working knowledge of Linux will be helpful. This course will introduce you to the skills, methodologies and activities required to administer a computer system which consists of various hardware, software and users within an organisational infrastructure. In particular, students will be introduced to user, device and file system administration, computer and network security, system monitoring, administrative support tools, network, server and client administration.

This course will help students to plan changes to work systems so that an organization is viable. It covers the preparation of a Business Case for the change that has the least business risk and the determination of the priorities for the projects needed to implement the change; using stakeholder relationship management, business analysis, requirements management, and benefits management.
ZEIT8144 Information and Communication Technology Processes
HPW3
Information and Communication Technology (ICT) has become increasingly vital for creating and delivering organisational value. This course aims to familiarise students with the processes required to manage ICT resources. Topics include: the role of the CIO, the IT organisation, IT processes, IT sourcing, and process improvement. This course will examine major initiatives in this area, including Information Technology Infrastructure Library (ITIL) and Control Objectives for Information and related Technology (COBIT).

ZEIT8146 Intrusion Detection and Response
HPW3
This course explores the technology and management processes used to detect and respond to IT security incidents. Topics include: a study of intrusion detection technologies such as host and network based IDS using both heuristic and machine learning approaches; an understanding of the types of data captured by IDS, and its subsequent analysis; and the use of both technical and procedural responses to detected incidents.

ZEIT8147 Human-machine Integration
HPW3
Human-Machine Integration deals with how humans and computer interact. The course provides students with the basis to analyse, evaluate, and design human-machine interfaces that effectively meet human needs. It familiarises students with the limitations and variability of human capabilities, and introduces them to analysis techniques and design methods that support the development of effective interfaces. The course also introduces students to the potential for unplanned social and organisational effects of the introduction of computer systems.

ZEIT8148 Serious Games
HPW3
Serious Games takes an IT professional and computational view of the technology and industry of computer games. The focus is primarily upon the technological dimension - simulation, graphics, human computer interaction, AI, etc. - with lesser emphasis on the social and business dimensions. Further, the course contains a significant design & development theme - the generic and game specific principles of design will be examined and exercised. Finally, the course will expose students to the critical role that play has for healthy human development and the way that modern defence forces (and other organisations), including the ADF are employing serious games - utilising the technology of computer games to meet some of their training, education, recruitment, decision-support or other requirements.

ZEIT8198 Project - Information Technology
part time
A supervised project carried out in consultation with an appropriate member of the School. Topics for projects will be elicited from staff of the School, Government departments, local organisations, and the students themselves. Topics will be chosen in consultation with staff of the School.

ZEIT8199 Project - Information Technology
UOC:12
A supervised project carried out in consultation with an appropriate member of the School. Topics for projects will be elicited from staff of the School, Government departments, local organisations, and the students themselves. Topics will be chosen in consultation with staff of the School.

ZEIT8219 Satellite Communications
HPW3
Fundamentals of satellites, including: applications, orbits, propagation and link calculations, system hardware for space and ground segments, multiplexing and multiple access techniques, network design, and future trends. Fundamentals of signals and noise associated with satellite communications. Transmission concepts: calculate analogue transmission rates with respect to distortionless transmission, amplitude and delay distortions with equalisation, nonlinear distortion with companding, and carrier-to-noise ratio and signal-to-noise ratio; and calculate digital transmission rates with respect to line codes, intersymbol interference, pulse shaping and equalisation, bit energy-to-noise density and error probabilities.

ZEIT8221 Spaceborne Imaging Technology
HPW3

ZEIT8226 Systems Engineering Practice
HPW3
This course provides students with an overview of Systems Engineering theory including process, management, related disciplines and tools. A simulated design exercise allows students to apply Knowledge of Systems Engineering processes and management to real-life system development. Throughout the exercise, design reviews are conducted to evaluate progress and introduce realistic development issues.
This course focuses on the test and evaluation practices that are essential if complex systems are to be developed to meet users' expectations without being delivered late and over-budget.

The course provides a broad overview of all aspects of test and evaluation, its role as part of systems engineering, its relationship to verification and validation, major types of T&E (development T&E, acceptance T&E, and operational T&E), and major T&E plans and documentation. The course has a strong practical element, both in terms of the introduction to the topic as well as formal practice through exercises.
This capstone project management course analyses the environment within which complex projects are defined and delivered, including organisational, political, financial and legal aspects: detail and dynamic complexity of projects are analysed through case studies, building appreciation of reasons for projects succeeding or failing and how major projects might be better managed. The demands of Parliament and Government with respect to corporate governance and impositions on the management of major projects. Economic and financial considerations in the determination of project viability are analysed. The law underpinning contracts is canvassed together with the design of forms of agreement, remedies available and options for dispute resolution.

This course focuses on the distinctive nature of project management in Defence, the public sector generally and higher corporate levels of the private sector where the project manager is orchestrating (rather than controlling) a political, bureaucratic, technical and contractual environment. The course ranges broadly across key facets of project management, such as quality management, configuration management, risk management and contract management.

Systems Dynamics is a science that has its origins in engineering control theory, although systems concepts cross most disciplines. System Dynamics is the rigorous study of organisational problems, from a holistic or systemic perspective, where there is dynamic behaviour (quantities changing over time) and where feedback impacts significantly on system behaviour. It provides the framework and rules for qualitative description, exploration and analysis of such systems in terms of their processes, information, boundaries and strategies, thereby facilitating quantitative computer simulation modelling and analysis to assist understanding of system structure and control. This course focuses on the application of system dynamics modelling in strategic and corporate environments, with an emphasis on Defence. However, the course has wide applicability across technical, environmental and social systems. This course will run for full Saturdays on the first 5 of 7 weeks of the session; thereafter students will meet in syndicates at times of their choosing.

“Systemic Failure” became a familiar summation for project disasters of the 20th century, from bridge collapses to hospital demolition. This course focuses on understanding the “systemic” in complex projects, to minimise risk of failure. This unit provides a foundation in general systems theory and then focuses on systems thinking competencies relevant to the project organisation, addressing methodologies and tools such as soft systems methodology, cognitive mapping, causal loop and influence diagrams and system archetypes. These methodologies provide insight into the capability maturity of project delivering organisations. In Session 1, this course will run for full Saturdays on the first 5 of 7 weeks of sessions; thereafter students will meet in syndicates at times of their choosing.
This course trains students into giving qualitative and quantitative insights into the relative merits of agreed options by using live and constructive simulation, studies and experimentation tools to provide rigour and structured analysis to support major decisions. Topics covered include: Business Cases, Options Development, Best Practice of Experimentation and Experimentation Design, Measures of effectiveness and data collection, Gaming, Agent-based Modelling, Experimentation, Decision Making Under Uncertainty and Risk, SMART and AHP.

This course introduces students to the wide variety of models in Hard and Soft Operations Research (OR). The course starts with an overview of OR, its history, the code for best practice, and problem formulation. Hard OR topics will include linear programming, network theory, project management, trend analysis, probability theory, queuing theory and game theory. Soft OR topics will include an introduction to soft OR and simulation.

This course carries on from OR Methods and trains students on the selection of appropriate techniques by describing the strengths and weaknesses of models and simulation, so that fit for purpose methods are applied to soluble problems. It will cover the algorithms used to solve hard OR problems including linear programming, transportation, assignment, integer programming, computational complexity including theory of NP-completeness, combinatorial optimisation, nonlinear optimisation, dynamic programming, goal programming, multiobjective optimisation, and heuristics.

The aim of this course is to present the principles of simulation. These cover: concepts of modelling, continuous and discrete systems, time stepped and event stepped simulation of queue systems and inventory systems, exposure to simulation languages.

This course addresses topics such as simulation architectures (HLA, DIS), engagement models, representation of human factors, human in the loop simulation, simulation for training, distributed simulation, grid simulation, defence and security applications.

Computational problem solving aims at shaping up the students’ abilities to structure the problem solving process in a logical and methodological manner. Advanced computational problem solving will develop students’ skills to formulate, design the logic, and solve significant problems reliably and coherently. The underpinning theory taught in this course will cover topics from information theory, multi-agent systems, networks, simulation, heuristics, reasoning and search. The applied side of the course will expose the students to problems in transportation, production, social and behavioural modelling, process modelling, and strategic modelling.


This course aims to introduce students to the principles of aerospace vehicle design and operations. The course content is introductory in nature and covers the fundamental aspects of aerospace engineering and operations. The course studies specifically the aeroplane as a total system, the basic aircraft components and their functions are discussed. The application of aerospace principles (aerodynamics, thermodynamics and performance) are covered in determining the behaviours of an aeroplane. Astronautics principles are also introduced.


This course provides the technical factors that affect military vehicle design, including armoured fighting vehicles. Topics include vehicle design, fabrication, mechanics, propulsion, handling, power supply systems and key aspects of associated project management. Terra-mechanics, mobility, counter-mobility and reliability are also addressed.
ZEIT8900  Professional Practice  HPW3
This course allows students who have previously completed at least 12 days of approved professional education short courses in relevant areas to the degree to gain recognition for that learning. They must prepare an essay in approved form demonstrating their understanding of those issues and the relationship of that learning to the program's objectives.
The course is only available to students at the Graduate Diploma and Masters level and will be counted against the 6UOC (Graduate Diploma) or 12UOC (Masters) that students may elect to take from related coursework programs.

ZEIT8903  Research Methods  HPW3
This course aims to provide students undertaking research with an understanding of basic frameworks in research. The course covers research techniques for gathering information, developing a research proposal and evaluating research carried out by others. Major areas include scientific and interpretive approaches, design, survey methods and instruments, case study, field study, experimentation, data collection and analysis. The principal skills imparted are in carrying out the research processes, and in the written and oral presentation of results.

ZHSS8002  Social Research Methods  HPW2
This course provides an introduction to qualitative and quantitative research methods commonly used in the social sciences and humanities.
The course will cover finding a topic; constructing a hypothesis, defining basic concepts and variables; evaluating source materials; analysing secondary sources; empirical observation; survey and interview methods, ethics of research; and the communication of results.

ZHSS8102  American Empire  HPW2
The roles of religion, ancestry, race and politics in the formation of contemporary American cultural identity are examined in this course, which ranges over nineteenth- and twentieth-century literary and cinematic forms.

ZHSS8103  Nearest Neighbours: Asia-Pacific Literature, Culture and Communication  HPW2
The course ranges over selected literary and cinematic works of cultures of the Asia-Pacific region including those works generated or affected by contact with the West. Concepts such as homeland, community, Asian-ness and Orientalism will be examined. Focus on specific countries of the region will change from year to year and may include travel writing and early ethnographic writing about first and later contacts between Europeans and local cultures.

ZHSS8106  War and Memory  HPW2
This course analyses the ways in which cultural forms such as novels, plays, essays, poetry, film and memorials represent the experience of war and, in doing so, transform it. It goes on to examine the various effects of these transformations in the personal, cultural and political spheres. From year to year, different wars and cultures may be chosen as the primary focus, and the course may range from the so-called home front during the war in question to its cultural aftermath.

ZHSS8122  Research Project - English Single Session  UOC12
Research project on a topic of relevance to the program undertaken, plus report in approved form.

ZHSS8123  Research Project - English Full Year  Research project on a topic of relevance to the program undertaken plus report in approved form.

ZHSS8125  Strategic Communication  HPW2
We will study communication theories in relation to representations of military practices such as official military history, TV programs, movies and fiction. The course will focus on particular national 'foundation' narratives eg. ANZAC. Studies of other societies' myths will aid in development of a new 'strategic' level of communication in future conflicts. Case studies may be selected from: Indonesia and East Timor; Fundamentalisms and Terrorism; The Pacific Arc of Instability; from the Soviet Afghanistan to the Gulf Wars; the breakdown of the (former) Yugoslav states; the Cold War; and the Indo-Chinese border conflicts.

ZHSS8204  Modern Naval History and Strategy  HPW2
We will study navies and sea power in the modern world, from the 1890s to the present, concentrating on various thematic issues. The approach will be international, including Australia and the Asia-Pacific. Themes will include how far classical arguments for sea power remain valid, how far there are naturally naval and continental powers and national naval strategic traditions, how far navies have special capabilities, and modern naval and maritime strategic ideas. Other topics will include naval command and commanders, naval tactics, amphibious and joint warfare, sea power and grand strategy, and contemporary circumstances and the future of sea power.
ZHSS8210 Genocide: Perception and Intervention
HPW2
This course studies genocide in the twentieth century and focuses on the challenges faced by the international community after the ratification of the United Nations’ Convention on the Prevention and Punishment of the Crime of Genocide. Students will begin by exploring the scholarly and legal difficulties of definition. They will analyse the major cases of genocide in the two world wars, Cambodia, the former Yugoslavia, Rwanda and Darfur as well as other questions of genocide within other contexts. In particular, the course will focus on several issues: difficulties of perception and recognition; the role of various international agencies and major powers; international relations and strategic limitations that determine the timing and nature of intervention; and the problems of punishment.

ZHSS8212 Research Project: History Single Session
UOC12
Research project on a topic of relevance to the program undertaken plus report in approved form.

ZHSS8215 Research Project - History Full Year
Research project on a topic of relevance to the program undertaken plus report in approved form.

ZHSS8217 Amphibious Warfare
HPW2
This course will explore the history and theory of amphibious warfare, utilising case studies ranging from ancient times to the twenty-first century and from Europe to the Asia-Pacific. It will consider the impact of modern sea and air power upon amphibious operations, the role of amphibious warfare for maritime and continental powers, and how far amphibious warfare can be an independent culture, as well as amphibious command, success and failure in amphibious operations, their historical and strategic influence, the current emphasis on maritime power projection and expeditionary warfare, and the likely future of amphibious warfare.

ZHSS8218 Hegemony: Global Power in Historical Perspective
HPW2
This course focuses on issues of global power, including the interaction of rising, dominant and declining world powers, and the dilemmas for states of maintaining and extending power. It uses historical case studies to give students a deeper understanding of current and future international concerns.

ZHSS8219 The Great Game: Geopolitics and Inner Eurasia
HPW2
The history and geopolitics of the famous “Great Game” is the centre-piece of this course. The original, nineteenth-century Great Game was a struggle between Tsarist Russia and Victorian England for political dominance, territorial control and security in Central Asia. It is a tale of adventure, espionage and the goal of world domination. The course also situates the nineteenth-century Great Game in a wider perspective by looking at the clash of empires in Inner Eurasia from Genghis Khan to the New Great Game of today.

The geopolitics of Inner Eurasia have changed dramatically with the collapse of the Soviet Union, the rise of Islamic extremism, and competition among new players for security and oil in this suddenly strategically-important region. Russia, China, the United States, India, Iran and Turkey, old neighbours and new game-players, are now lining up on the chessboard.

ZHSS8220 Fighting the Second World War
HPW2
This course introduces students to the major themes and historiographical debates in the history of the Second World War. It focuses on both the war in Europe and that in the Pacific, and examines a range of issues pertinent to the waging of war in the period 1937-45.

ZHSS8221 The Development of the Art of War: A Survey
HPW2
This course provides an introductory survey of the major themes and developments in the field of Military History from the Classical world onwards. Themes addressed include the influence of technology, development of armies, the existence or otherwise of a ‘Western way of war’, logistics, the relationships between strategy and tactics, and the experience of battle.

ZHSS8222 The Rise of the European Warfare State
HPW2
This course introduces students to developments in the state as a militarised entity in a European context, focussing on the nexus between state development and the capacity to make war in such areas as finance, logistics, recruitment and weaponry and their relationship to strategy and operations. It adopts a case study method with examples drawn from a range of time periods including the 16th and 17th century conflict between Spain and the Dutch, France from the wars of Louis XIV to the Napoleonic Wars, Britain from Marlborough’s wars to 1815, Prussia/Germany from the 7th to the 20th centuries, and Russia from 1805 to 1945.

ZHSS8223 The First World War 1914-1919
HPW2
This course examines the major themes and developments in the First World War, 1914-19. It considers all major, and some lesser, theatres of the war and introduces students to the major historiographical arguments concerning these in a vast and rich historical literature.

ZHSS8224 Small Wars of Empire: Colonial Warfare from 1700
HPW2
This course examines the theory and practice of small wars and insurgencies in colonial and some post-colonial contexts from the 18th century to the present. The course takes a case study approach to the subject, and will draw on examples from across the European colonial experience.

ZHSS8225 Australian Military History: An Introduction
HPW2
This course offers an introduction to the role and impact of war upon the development of Australia. It deals with settler-indigenous conflict, the world two wars, the post-1945 conflicts in our region, developments in defence policy in periods of peace, and commitments in a variety of theatres since the early 1990s.
ZHSS8226 The Vietnam Wars: A Thirty Year Conflict

HPW2

This course examines the causes, course and consequences of the wars in Indochina from the return of French colonial rule in 1946 to the defeat of American and allied interests in 1975 with the fall of Saigon and the end of the Republic of Vietnam. The course will introduce students to a number of major historiographical arguments within the extensive and diverse historical literature on the war.

ZHSS8227 Civil Wars: Societies in Conflict

HPW2

This course investigates Civil Wars around the globe and from early modern times to the present. It utilises case studies from the past, including the English, American, Russian, Irish and Spanish Civil Wars. It will also analyse contemporary case studies in Eurasia and Africa. An analysis of Civil Wars provides insights not only into important changes in warfare and technology, but also into the political and military cultures of great powers and failed states.

ZHSS8228 Understanding Asia: North Korea

HPW2

North Korea may lay claim to being the most misunderstood nation in the English-speaking world. The Australian media and much of the English-language scholarship is so ill-informed that it promotes only ignorance and confusion. The convenor of this course brings his own experience of recent work in the North Korean education system to provide a unique level of inside knowledge of ongoing changes in the country. Mixing contemporary history with diplomacy, politics, society, and popular culture, this course will be of enormous value to anyone attempting to understand the past, present and future of North Korea and of East Asia more generally.

ZHSS8300 Media and Democracy in South East Asia

HPW2

This course examines the role of the media in democratisation in South East Asia. The media have proven forums for popular expression. But they have served the interests of authoritarian states and commercial empires. What is the media’s contribution to democracy in South East Asia? We will comprehensively study the media taking into account key micro and macro factors, including media history, legislation, diplomacy, privatisation, regionalisation, journalism, arts, language and audience. We will discuss case-studies from both sides of the divide between ‘high’ and ‘low’ culture, including print media, radio, television, Internet, literature, popular music and the fine arts.

ZHSS8400 Research Project: IPS Single Session

UOC12

In place of two Masters courses students may apply to undertake a Research Project in a relevant subject area with the approval of the Course Authority, provided always resources are available. The normal prerequisite will be a Distinction average over four courses (the average of those marks). The project topic will be determined by special consultation between the Course Authority and the student. The research project may be taken over one or two sessions. Enrolling over two sessions must be done in consultation with Student Administrative Services. The total length of the research project should not exceed 12,000 words.

ZHSS8401 Research Project - IPS Full Year

Research project on a topic of relevance to the program undertaken plus report in approved format.

ZHSS8403 Global Security

HPW2

This course considers the nature of security and security studies in the context of global politics. Attention is given to contending theoretical perspectives, the role of strategic culture in defining interests, globalisation, the changing nature of deadly conflict, the dilemmas of weak states, the growing desperation of the world’s poor, and ethnic conflict.

The course also takes a particular interest in non-military cross border threats such as environmental degradation and change, migration, drugs and other issues that influence how security is understood.

ZHSS8404 Legal and Moral Problems of International Violence

HPW2

Most states, most of the time, seek to justify their use of violence against other states, using both legal and moral arguments. The course first examines the much-disputed relationship between law and morality. It then explores topics such as: just war and self-defence; armed intervention into other states; laws of armed conflict; terrorism, irregular war; regulation of weapons of war; use of force by the United Nations; and enforcement of law by international courts.

The course also asks whether individuals, civilian and military, can conscientiously object to violence by their state.

ZHSS8407 Global Governance in an Age of Globalisation

HPW2

This course introduces students to the institutions and techniques of global governance in an age of hyper-globalisation. It deals with the roles of non-state actors in global politics from the United Nations to the global economy to terrorist regimes.

ZHSS8408 Emergence of Australian International Relations

HPW2

How have Australian thinkers understood the region and the world? This course reviews Australian responses to major regional and global trends from Versailles to Vietnam, including: the WWI peace settlement and establishment of the League of Nations; the redefinition of Australia’s place in the Commonwealth, the breakdown of the international system in the 1930s, the threat of Japan, the post-1945 settlement, the formation of the UN, the development of security relations with the USA, the emergence of the Cold War, decolonization, and the exercise of US power in Asia.

The work of scholars and officials including Egelestone, Moore, Alexander, Casey, Piesse, Crawford, Hasluck, Evatt, MacMahon Ball, Miller and Bull will be assessed to determine the main features of Australian ‘international relations’ in the period leading up to the consolidation (by the 1960s) of the global discipline.
This course examines the key elements shaping the Asia-Pacific security environment in the early 21st century. It blends an understanding of the principal themes and trends that are influencing the progress of the region as a whole with detailed insights into particular nations and the strategic issues most likely to impact on its future direction and stability. Students will be encouraged to explore the main issues in depth and to identify the relationships between them and their practical implications for policy makers. Particular attention is given to analysing security flashpoints and to the new security challenges.

This course provides an in-depth understanding of the dynamics of Australia’s strategic and defence policy and the challenges that it is facing in both determining priorities and bridging the gap between desired ends and available means. It examines how the current policies have evolved, the factors that will determine their future shape, and the options available for resolving current and prospective dilemmas. Attention is given to the balance between defence of Australia tasks and broader security commitments, to the tools for producing sustainable capacity (personnel, equipment and national support), and to the complexities of managing security relations with others.

This course promotes an understanding and awareness of the key challenges facing intelligence policy in the new strategic environment. Its framework is broader than defence, encompassing the wide range of security challenges now confronting nations. It aims to promote a whole of government understanding and approach to the role of modern intelligence in the 21st century in providing accurate, timely and relevant information to support decision makers.

What roles can air power play in the diverse types of operations undertaken for national security: wars, anti-terrorism, stabilisation and humanitarian missions? How can a flexible and responsive air power capacity be developed within strict resource and political constraints? What is the role of air power in the new security environment? How can air power contribute to national security in a whole-of-government approach? How can a strategic air force be developed? What are the challenges of joint operations with other services or in coalition with other defence forces? These are among the strategic and policy issues examined in this course.

Some of the most serious and vexing moral and political dilemmas of our time are global rather than national. These include issues such as world poverty, migration and refugees, climate change, failed and failing states, and so on. What, if anything, should we do about these problems? And why? This course examines issues such as these, and asks who - whether particular states, international organisations or individuals - should ultimately be responsible for trying to fix them.
Academic Discourse I: Analysis and Writing (for international students)

School of Humanities and Social Sciences

HPW4

Designed primarily for international students, this course aims to enable students to study academic discourse and develop the language skills necessary to read effectively and write appropriately in an academic context. The course will develop note-taking, paraphrasing and summary writing skills. Students will critically evaluate a reading specific to their particular disciplines, write a critical review and practise sentence and paragraph construction to develop their essay writing skills. Attention will also be paid to grammatical features, identified in the diagnostic test, which enable writers to convey meaning with greater precision.

Critical Business Skills

School of Business

HPW3

An introduction to business case analysis, writing a business proposal and communicating business outcomes to different audiences. This course also examines the evaluation of business information, selecting appropriate sources and targeting your audience. It draws on material that links to all of the key aspects of managing a business.

Project Management

School of Business

HPW3

This course covers all aspects of managing a project such as project definition and scoping, cost and quality planning, managing the risk, financial and legal aspects of the project, and completing the project. It is designed principally for students who require project management skills. The course provides students with the opportunity to develop an understanding of project management principles and practices.

Introduction to Data Analysis

HPW3

The course provides a foundation for further studies in statistics, management or any other area requiring some proficiency in data analysis. It gives an introduction to data analysis, with emphasis on the analysis of experiments. It teaches the principle of good experimental design, and focuses on a project where you design and analyse your own experiment. The course introduces a simple statistical computer package that is used for data exploration and presentation, and the analysis of data from simple experimental and observational studies.
ZPEM8202 Principles of Geographic Information Analysis and Remote Sensing

HPW4

This course deals with the concepts and principles of remote sensing and geographic information analysis. The course is designed to provide students from diverse backgrounds with a theoretical basis in spatial phenomena and an understanding of data processing and analysis techniques. Topics include data acquisition, digital image processing, database design, spatial analysis and visualization. The course will be taught in both lectures and practical exercises. In a final project, students will integrate remote sensing and GIS technologies in a practical application. At the end of the course students will have an understanding of how to select or acquire appropriate spatial data and will be able to perform basic digital image processing and spatial analysis tasks.

ZPEM8206 Applications in Geographic Information Analysis

HPW4

Prerequisite: ZPEM8202

Ever worked on a GIS project (for uni or for work) where you had a mind-numbingly repetitive task that nearly drove you mad? Ever felt frustrated that a GIS package lacked the functionality that you really wanted? Applications in Geographic Information Analysis is an advanced GIS course that emphasizes creating custom applications of geographic information systems technologies for solving geographical problems.

We will explore the potential for using a number of different automation technologies with GIS (e.g., Python and VBA) and you will build practical skills in implementing these technologies throughout the course of the class. The course has been designed to cater for students with no background or prior experience in programming.

ZPEM8309 Applications of Data Analysis

HPW3

The course provides the necessary background for further studies in statistics, management, or any other area requiring some proficiency in data analysis. It provides an overview of techniques and applications of data analysis, with emphasis on the analysis of experiments. It teaches the principles of good experimental design, and focuses on a project where you design and analyse your own experiment. The course uses a simple statistical package for data exploration and presentation, and the analysis of data from simple experimental and observational studies.
Important dates for students in 2013

Semester 1 commences 4 March
Last day to add S1 on-campus mode courses 10 March
Last day to drop S1 courses without financial penalty 31 March
Provisional exam timetable released for S1 19 April
Last day to drop S1 courses without academic penalty 26 April
Last day to report exam clashes for S1 3 May
S1 mid-semester break 6 – 17 May
Final exam timetable released for S1 31 May
Semester 1 ends 14 June
S1 Study Recess 17 – 21 June
Examinations 24 June – 5 July
Mid-year leave 8 – 19 July
S1 results published in myUNSW 18 July
Semester 2 commences 22 July
Last day to add S2 on-campus mode courses 28 July
ADFA Open Day 31 August
Last day to drop S2 courses without financial penalty 31 August
Provisional exam timetable for S2 released 6 September
Last day to drop S2 courses without academic penalty 13 September
Last day to report exam clashes for S2 20 September
S2 mid-semester break 28 September – 6 October
Final exam timetable released for S2 11 October
Semester 2 ends 25 October
S2 Study Recess 28 October – 1 November
Examinations 4 – 15 November
S2 results published in myUNSW 18 November
Conferring of degrees ceremony 11 December

Public building and accommodations

Accommodation
- Main Parade Ground
- Oval
- Tennis Court
- Parade Ground B
- Parade Ground A
- Central Carpark
- Officer Cadet Carpark
- Military Carpark
- Indoor Sport Centre Carpark

Carpark
- Northcott Drive
- Main Entrance
- Main Parade Ground
- Oval
- Tennis Court
- Parade Ground A
- Parade Ground B
- Parade Ground C
- Parade Ground D
- Parade Ground E
- Parade Ground F
- Parade Ground G
- Parade Ground H
- Parade Ground I
- Parade Ground J
- Parade Ground K
- Parade Ground L
- Parade Ground M
- Parade Ground N
- Parade Ground O
- Parade Ground P
- Parade Ground Q
- Parade Ground R
- Parade Ground S
- Parade Ground T
- Parade Ground U
- Parade Ground V
- Parade Ground W
- Parade Ground X
- Parade Ground Y
- Parade Ground Z

Outdoor Facilities
- Main Parade Ground
- Oval
- Tennis Court
- Parade Ground B
- Parade Ground A

Carpark
- Northcott Drive
- Main Entrance
- Academic Carpark
- Central Carpark
- Officer Cadet Carpark
- Military Carpark
- Indoor Sport Centre Carpark

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