UNSW Course Outline

ZEIT4752 Ship Propulsion and Marine Engineering - 2024

Published on the 11 Feb 2024

General Course Information

Course Code : ZEIT4752
Year : 2024
Term : Semester 1
Teaching Period : Z1
Is a multi-term course? : No
Faculty : UNSW Canberra
Academic Unit : School of Engineering and Technology
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : UNSW Canberra at ADFA
Campus : UNSW Canberra
Study Level : Undergraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

This fourth-year course equips students with knowledge and skills required to analyse and design marine thermo-fluid engineering equipment used on board a variety of ship types. This knowledge can then be applied to obtaining effective engineering design solutions for these

systems, so that they can meet their functional purposes within international statutory and regulatory frameworks.

Course Aims

The course aim is to provide students with a solid understanding of the workings, weaknesses, and integration of various propulsion and auxiliary systems in ships, to have the informed knowledge and be successful in their professional roles during the equipment sizing and selection process of current and future ship designs.

Relationship to Other Courses

The course in Year 4 is core to the standard BE (Hons) (Naval Architecture) program and its CDF variant.

It is an elective to the 4th year BE (Hons) (Mechanical Engineering) program and its CDF variant.

Course Learning Outcomes

Course Learning Outcomes	Engineers Australia - Professional Engineer (Stage 1)
CLO1 : Explain the design features and practical constraints of marine machinery systems and components.	• PEE1.3 : In-depth understanding of specialist bodies of knowledge within the engineering discipline • PEE1.4 : Discernment of knowledge development and research directions within the engineering discipline • PEE1.5 : Knowledge of engineering design practice and contextual factors impacting the engineering discipline • PEE3.2 : Effective oral and written communication in professional and lay domains
CLO2 : Analyse fluid and air flows in ducted pipework systems and determine appropriate pump/fan and cooler duties.	• PEE1.1 : Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline • PEE1.2 : Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline • PEE1.3 : In-depth understanding of specialist bodies of knowledge within the engineering discipline • PEE2.1 : Application of established engineering methods to complex engineering problem solving • PEE2.2 : Fluent application of engineering techniques, tools and resources
CLO3 : Select and specify the appropriate equipment for marine power plant with due regard to reliability and maintainability.	• PEE1.1 : Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline • PEE1.3 : In-depth understanding of specialist bodies of knowledge within the engineering discipline • PEE1.5 : Knowledge of engineering design practice and contextual factors impacting the engineering discipline • PEE2.2 : Fluent application of engineering techniques, tools and resources • PEE3.4 : Professional use and management of information
CLO4 : Design ship's machinery, piping, and systems, with due consideration to classification and statutory regulations.	• PEE1.1 : Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering

	discipline • PEE1.2 : Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline • PEE1.3 : In-depth understanding of specialist bodies of knowledge within the engineering discipline • PEE1.4 : Discernment of knowledge development and research directions within the engineering discipline • PEE1.5 : Knowledge of engineering design practice and contextual factors impacting the engineering discipline • PEE1.6 : Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline • PEE2.1 : Application of established engineering methods to complex engineering problem solving • PEE2.2 : Fluent application of engineering techniques, tools and resources • PEE3.1 : Ethical conduct and professional accountability • PEE3.4 : Professional use and management of information
CLO5 : Apply considerations of occupational health and safety and environmental protection issues to the design of marine machinery systems.	• PEE1.3 : In-depth understanding of specialist bodies of knowledge within the engineering discipline • PEE1.4 : Discernment of knowledge development and research directions within the engineering discipline • PEE1.5 : Knowledge of engineering design practice and contextual factors impacting the engineering discipline • PEE1.6 : Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline • PEE2.3 : Application of systematic engineering synthesis and design processes • PEE3.1 : Ethical conduct and professional accountability • PEE3.4 : Professional use and management of information • PEE3.5 : Orderly management of self, and professional conduct

Course Learning Outcomes	Assessment Item
CLO1 : Explain the design features and practical constraints of marine machinery systems and components.	• Propulsion • HVAC • Hotel Systems • Electrical Systems • Final Exam
CLO2 : Analyse fluid and air flows in ducted pipework systems and determine appropriate pump/fan and cooler duties.	• HVAC • Final Exam
CLO3 : Select and specify the appropriate equipment for marine power plant with due regard to reliability and maintainability.	• Propulsion • Electrical Systems • Final Exam
CLO4 : Design ship's machinery, piping, and systems, with due consideration to classification and statutory regulations.	• Hotel Systems • Final Exam
CLO5 : Apply considerations of occupational health and safety and environmental protection issues to the design of marine machinery systems.	• Hotel Systems • Electrical Systems • Final Exam

Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams

Learning and Teaching in this course

The teaching strategies employed in this core course in the discipline of naval architecture have at their heart, a close two-way exchange between the course convener/lecturers and the small student cohort in group and individual learning contexts. The high instructor-to-student ratio allows plentiful feedback and support, designed to foster the earliest possible development of solid technical skills and appreciation of the critical nature of highly professional practice in naval architecture.

The Learning Management System

Moodle is the Learning Management System used at UNSW Canberra. All courses have a Moodle site which will become available to students at least one week before the start of semester. Please find all help and documentation (including Blackboard Collaborate) at the Moodle Support page.

UNSW Moodle supports the following web browsers:

» Google Chrome 50+

» Safari 10+
** Internet Explorer is not recommended

** Addons and Toolbars can affect any browser's performance.

Operating systems recommended are:

Windows 7, 10, Mac OSX Sierra, iPad IOS10

For further details about system requirements click here.

Log in to Moodle here.

If you need further assistance with Moodle:

For enrolment and login issues please contact:
IT Service Centre
Email: itservicecentre@unsw.edu.au
Phone: (02) 9385-1333
International: +61 2 9385 1333

For all other Moodle issues please contact:
External TELT Support
Email: externalteltsupport@unsw.edu.au
Phone: (02) 9385-3331
International: +61 2 938 53331

Opening hours:
Monday – Friday 7:30am – 9:30 pm
Saturday & Sunday 8:30 am – 4:30pm

Other Professional Outcomes

Program Learning Outcomes

This course contributes to the following Program Learning Outcomes of the Bachelor of Engineering (Hons) (Naval Architecture)
(Program 4484):

PLO 1	Relate a quantitative, theory-based understanding of the sciences and rationally apply comprehensive knowledge of the fundamental principles underpinning maritime engineering, with advanced knowledge of both Naval and Ocean vehicle design, hydrodynamics, ship structures, and/or on-board systems and equipment specific to the naval architecture discipline, using critical thinking and judgement
PLO 2	Appropriately select and apply the mathematical, statistical, programming, and computational tools and techniques which underpin naval architecture
PLO 3	Demonstrate a comprehensive understanding of ship design, construction, performance, maritime systems and sub-systems aboard surface ships and submarines, and articulate directions of research and knowledge development in naval architecture
PLO 4	Synthesise ship design practice, contextual factors, norms, and accountabilities in and the limitations on naval architecture
PLO 5	Define, conduct experiments on and apply problem solving, design and decision-making methodologies to identify complex problems in both the ship design and construction industries and the wider maritime sector whilst concurrently considering the implications of the solution in a global and sustainable context using appropriate engineering methods and tools
PLO 8	Review personal performance, demonstrate independent initiatives and leadership as a means of managing continuing professional development and lifelong learning

Additional Course Information

As a 6 unit-of-credit (UoC) course 6 hours per week (h/w) of face-to- face contact have been timetabled. The UNSW website states “The normal workload expectations of a student are approximately 25 hours per semester for each UoC, including class contact hours, other learning activities, preparation and time spent on all assessable work. Thus, for a full-time enrolled student, the normal workload, averaged across the 16 weeks of teaching, study and examination periods, is about 37.5 hours per week.” This means that you should aim to spend a minimum of 9 h/w on this course. Additional time should be spent in making sure that you understand the lecture material, completing the set assignments, on further reading and revising for the examination.

Reference

In this course, students are required to reference following the APA 7 / Chicago NB referencing style. Information about referencing styles is available at: https://guides.lib.unsw.adfa.edu.au/c.php?g=472948&p=3246720

Study at UNSW Canberra

https://www.unsw.adfa.edu.au/study

Study at UNSW Canberra has lots of useful information regarding:

- Where to get help
- Administrative matters
- Getting your passwords set up
- How to log on to Moodle
- Accessing the Library and other areas.

Additional Information as required

CRICOS Provider no. 00098G

The University of New South Wales Canberra.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates	Engineers Australia - Professional Engineer (Stage 1)
Propulsion Assessment Format: Individual	15%	Start Date: Not Applicable Due Date: 15/03/2024 11:59 PM	• PEE1.4 : Discernment of knowledge development and research directions within the engineering discipline • PEE1.2 : Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline • PEE1.6 : Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline • PEE1.5 : Knowledge of engineering design practice and contextual factors impacting the engineering discipline • PEE2.1 : Application of established engineering methods to complex engineering problem solving • PEE2.2 : Fluent application of engineering techniques, tools and resources • PEE2.3 : Application of systematic engineering synthesis and design processes • PEE2.4 : Application of systematic approaches to the conduct and management of projects within the technology domain • PEE3.3 : Creative, innovative and pro-active demeanour • PEE3.2 : Effective oral and written communication in professional and lay domains • PEE3.4 : Professional use and management of information • PEE3.5 : Orderly management of self, and professional conduct

HVAC Assessment Format: Individual	20%	Start Date: Not Applicable Due Date: 04/04/2024 11:59 PM	• PEE1.1 : Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline • PEE1.2 : Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline • PEE1.3 : In-depth understanding of specialist bodies of knowledge within the engineering discipline • PEE1.4 : Discernment of knowledge development and research directions within the engineering discipline • PEE1.5 : Knowledge of engineering design practice and contextual factors impacting the engineering discipline • PEE1.6 : Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline • PEE2.2 : Fluent application of engineering techniques, tools and resources • PEE2.3 : Application of systematic engineering synthesis and design processes • PEE2.4 : Application of systematic approaches to the conduct and management of projects within the technology domain • PEE2.1 : Application of established engineering methods to complex engineering problem solving • PEE3.2 : Effective oral and written communication in professional and lay domains • PEE3.4 : Professional use and management of information • PEE3.5 : Orderly management

			of self, and professional conduct
Hotel Systems Assessment Format: Individual	20%	Start Date: Not Applicable Due Date: 09/05/2024 11:59 PM	• PEE1.1 : Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline • PEE1.2 : Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline • PEE1.3 : In-depth understanding of specialist bodies of knowledge within the engineering discipline • PEE1.4 : Discernment of knowledge development and research directions within the engineering discipline • PEE1.5 : Knowledge of engineering design practice and contextual factors impacting the engineering discipline • PEE2.1 : Application of established engineering methods to complex engineering problem solving • PEE2.2 : Fluent application of engineering techniques, tools and resources • PEE2.3 : Application of systematic engineering synthesis and design processes • PEE2.4 : Application of systematic approaches to the conduct and management of projects within the technology domain • PEE3.2 : Effective oral and written communication in professional and lay domains • PEE3.1 : Ethical conduct and professional accountability • PEE3.5 : Orderly management of self, and professional conduct
Electrical Systems	20%	Start Date: Not Applicable	• PEE1.1 : Comprehensive,

Assessment Format: Individual		Due Date: 31/05/2024 11:59 PM	theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline • PEE1.2 : Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline • PEE1.3 : In-depth understanding of specialist bodies of knowledge within the engineering discipline • PEE2.2 : Fluent application of engineering techniques, tools and resources • PEE2.4 : Application of systematic approaches to the conduct and management of projects within the technology domain • PEE3.2 : Effective oral and written communication in professional and lay domains • PEE3.4 : Professional use and management of information • PEE3.5 : Orderly management of self, and professional conduct
Final Exam Assessment Format: Individual	25%	Start Date: Not Applicable Due Date: Exam Week	• PEE1.1 : Comprehensive, theory based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline • PEE1.3 : In-depth understanding of specialist bodies of knowledge within the engineering discipline • PEE1.2 : Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline • PEE1.4 : Discernment of knowledge development and

			research directions within the engineering discipline • PEE1.6 : Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline • PEE1.5 : Knowledge of engineering design practice and contextual factors impacting the engineering discipline • PEE2.3 : Application of systematic engineering synthesis and design processes • PEE2.2 : Fluent application of engineering techniques, tools and resources • PEE3.1 : Ethical conduct and professional accountability • PEE3.2 : Effective oral and written communication in professional and lay domains • PEE3.3 : Creative, innovative and pro-active demeanour • PEE3.4 : Professional use and management of information • PEE3.5 : Orderly management of self, and professional conduct

Assessment Details

Propulsion

Assessment Overview

n/a

Course Learning Outcomes

- CLO1 : Explain the design features and practical constraints of marine machinery systems and components.
- CLO3 : Select and specify the appropriate equipment for marine power plant with due regard to reliability and maintainability.

Detailed Assessment Description

Propose a suitable propulsion system for a unique ship project. Based on client requirements and other key ship particulars, determine the propulsion size for cruising and sprinting, ensuring the fuel range is achieved. The proposed solution will consider environment impact, significant

maintenance and reliability aspects, and any operational restrictions.

Assessment Length

less than 8 pages

Submission notes

submitted via moodle

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

HVAC

Assessment Overview

n/a

Course Learning Outcomes

- CLO1 : Explain the design features and practical constraints of marine machinery systems and components.
- CLO2 : Analyse fluid and air flows in ducted pipework systems and determine appropriate pump/fan and cooler duties.

Detailed Assessment Description

Calculate the heat load and cooling required for specific compartments in a ship, based on internal equipment and external environmental factors.

Assessment Length

less than 8 pages

Submission notes

submitted via moodle

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

Hotel Systems

Assessment Overview

n/a

Course Learning Outcomes

- CLO1 : Explain the design features and practical constraints of marine machinery systems and components.
- CLO4 : Design ship's machinery, piping, and systems, with due consideration to classification and statutory regulations.
- CLO5 : Apply considerations of occupational health and safety and environmental protection issues to the design of marine machinery systems.

Detailed Assessment Description

Calculate pipe losses for a cooling system and determine a suitable pump. Select appropriate valves and for all equipment consider the maintenance requirements and material suitability in a sea water environment.

Assessment Length

less than 8 pages

Submission notes

submitted via moodle

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

Electrical Systems

Assessment Overview

n/a

Course Learning Outcomes

- CLO1 : Explain the design features and practical constraints of marine machinery systems and components.
- CLO3 : Select and specify the appropriate equipment for marine power plant with due regard to reliability and maintainability.
- CLO5 : Apply considerations of occupational health and safety and environmental protection issues to the design of marine machinery systems.

Detailed Assessment Description

Propose types of motors for given applications with consideration to the power, torque, speed and reliability performance. Explain with hand sketches the relevant theory and working principals of electrical equipment on a ship.

Assessment Length

less than 10 pages

Submission notes

submitted via moodle

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

Final Exam

Assessment Overview

n/a

Course Learning Outcomes

- CLO1 : Explain the design features and practical constraints of marine machinery systems and components.
- CLO2 : Analyse fluid and air flows in ducted pipework systems and determine appropriate pump/fan and cooler duties.
- CLO3 : Select and specify the appropriate equipment for marine power plant with due regard to reliability and maintainability.
- CLO4 : Design ship's machinery, piping, and systems, with due consideration to classification and statutory regulations.
- CLO5 : Apply considerations of occupational health and safety and environmental protection issues to the design of marine machinery systems.

Detailed Assessment Description

VIVA Exam in a panel question format. Questions on all aspect of the course will be asked.

Assessment Length

60 - 90 minutes

Submission notes

Oral exam - no submission

Assignment submission Turnitin type

This is not a Turnitin assignment

Hurdle rules

Achievement of a minimum of 50% in the Viva (examination) is required to pass the course.

General Assessment Information

Written feedback on Assessment 1 will be provided before the end of week 4.

Any sketches to explain theory or workings is expected to be the student's own work. Neat free hand sketching is encouraged.

Late Submission of Assessment

Unless prior arrangement is made with the lecturer or a formal application for special consideration is submitted, a penalty of 5% of the total available mark for the assessment will apply for each day that an assessment item is late up to a maximum of 5 days (120 hours) after which an assessment can no longer be submitted and a grade of 0 will be applied.

Full use of Generative AI in assessments is permitted with attribution

You can use generative AI software in this assessment to the extent specified in the assessment instructions. Any output of generative software within your assessment must be attributed with full referencing.

If the outputs of generative AI such as ChatGPT form part of your submission and is not appropriately attributed, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.

* To cite: OpenAI (Year Accessed). ChatGPT. OpenAI. https://openai.com/models/chatgpt/

* Please note that the outputs from these tools are not always accurate, appropriate, nor properly referenced. You should ensure that you have moderated and critically evaluated the outputs from generative AI tools such as ChatGPT before submission.

Grading Basis

Standard

Requirements to pass course

The overall passing mark is set at 50% by the university. Achievement of a minimum of 50% in the Viva (examination) is required to pass the course.

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 26 February - 1 March	Lecture	Monday 14:10 - 16:00 (BLD 21 SL5) Lecture 1: Introduction and Propulsion
	Tutorial	Tuesday 14:10 - 16:00 (BLD 21 SL5) Tutorial: if required - to be advised in the preceding Lecture.
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 2: Propulsion
Week 2 : 4 March - 8 March	Lecture	Monday 14:10 - 16:00 (BLD 21 SL5) Lecture 3: Propulsion
	Tutorial	Tuesday 14:10 - 16:00 (BLD 21 SL5) Tutorial: if required - to be advised in the preceding Lecture.
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 4: Propulsion - Manoeuvring Systems
Week 3 : 11 March - 15 March	Lecture	Monday - No Lecture - Canberra Day
	Tutorial	Tuesday 14:10 - 16:00 (BLD 21 SL5) Tutorial: if required - to be advised in the preceding Lecture.
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 5: HVAC
	Assessment	Assessment 1 due 15 Mar
Week 4 : 18 March - 22 March	Lecture	Monday 14:10 - 16:00 (BLD 21 SL5) Lecture 6: HVAC
	Tutorial	Tuesday 14:10 - 16:00 (BLD 21 SL5) Tutorial: if required - to be advised in the preceding Lecture.
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 7: Refrigeration
Week 5 : 25 March - 29 March	Lecture	Monday 14:10 - 16:00 (BLD 21 SL5) Lecture 8: Fuel Systems
	Tutorial	Tuesday 14:10 - 16:00 (BLD 21 SL5) Tutorial: if required - to be advised in the preceding Lecture.
	Lecture	Friday - No Lecture - Good Friday
Week 6 : 1 April - 5 April	Lecture	Monday No Lecture - Easter Monday
	Tutorial	Tuesday 14:10 - 16:00 (BLD 21 SL5) Tutorial: if required - to be advised in the preceding Lecture.
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 9: Hydraulics
	Assessment	Assessment 2 due 04 April
Week 7 : 22 April - 26 April	Lecture	No Lecture - Class excursion to Tasmania
	Tutorial	No Tutorial - Class excursion to Tasmania
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 10: Sea Water Systems
Week 8 : 29 April - 3 May	Lecture	Monday 14:10 - 16:00 (BLD 21 SL5) Lecture 11: Sewage Systems
	Tutorial	Tuesday 14:10 - 16:00 (BLD 21 SL5) Make up Lecture: Lecture 12 Fresh Water Systems
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 13: Mission Systems
Week 9 : 6 May - 10 May	Lecture	Monday 14:10 - 16:00 (BLD 21 SL5) Lecture 14: Safety Systems
	Laboratory	Tuesday 14:10 - 16:00 (BLD 15 Power Lab) Electrical Lab
	Lecture	Friday - No Lecture - Military Training Day
	Assessment	Assessment 3 due 09 May
Week 10 : 13 May - 17 May	Fieldwork	Note: Dates of sea voyage to be confirmed by early April. It may be the following following week beging 20 May, or possibly another date. Monday to Wednesday - Sea voyage on ship. Study of systems, experiements on system integration, meeting with operators and maintainers.
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 15: Electrical
Week 11 : 20 May - 24 May	Lecture	Monday 14:10 - 16:00 (BLD 21 SL5) Lecture 16: Electrical
	Laboratory	Tuesday 14:10 - 16:00 (Power Lab) Electrical Lab
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 17: Electrical
Week 12 : 27 May - 31 May	Lecture	Monday - No Lecture - Reconcilation Day
	Lecture	Tuesday - Monday Timetable Tuesday 14:10 - 16:00 (BLD 21 SL5) Lecture 18: Electrical
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 19: Hull Survey & Maintenance Management
	Assessment	Assessment 4 due 31 May
Week 13 : 3 June - 7 June	Lecture	Monday 14:10 - 16:00 (BLD 21 SL5) Lecture 20: Communications and

		Navigation systems
	Tutorial	Tuesday - No Tutorial
	Lecture	Friday 11:00 - 13:00 (BLD 21 SL5) Lecture 21: ZEIT4752 Course Review

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

General Schedule Information

All lectures and tutorials will be presented by Sean McCracken.

Course Resources

Prescribed Resources

Taylor, Introduction to Marine Engineering

This is available electronically at https://guides.lib.unsw.adfa.edu.au/NavalArchitecture/books

Recommended Resources

Reference may be made to supporting sources throughout this course, which may be available in electronic and/or physical form via the UNSW Canberra library. Refer to the subject guide at ADFA Library subject guide – Naval Architecture.

Other resources will as appropriate be made available on this course's Teams/Moodle site

Additional Costs

A 3 day voyage is planned in conjunction with this course, during which students will see and experience actual machinery systems on a ship and appreciate the integration of all systems, operators and maintenance in a fully functional ship. There is no additional cost to the student.

Course Evaluation and Development

The class is conducted in an interactive manner encouraging students to ask questions through the lecture. On a weekly basis during each tutorial, students are prompted if there is any topic that they would like more detail on and time is allocated in the tutorial to explore that topic further.

One of the key priorities in the 2025 Strategy for UNSW is a drive for academic excellence in education. One of the ways of determining how well UNSW is progressing towards this goal is by

listening to our own students. Students will be asked to complete the myExperience survey towards the end of this course.

Students can also provide feedback during the semester via: direct contact with the lecturer, the "On-going Student Feedback" link in Moodle, Student-Staff Liaison Committee meetings in schools, informal feedback conducted by staff, and focus groups. Student opinions really do make a difference. Refer to the Moodle site for this course to see how the feedback from previous students has contributed to the course development.

Important note: Students are reminded that any feedback provided should be constructive and professional and that they are bound by the Student Code of Conduct Policy

https://www.gs.unsw.edu.au/policy/documents/studentcodepolicy.pdf

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Sean McCracken		Building 20 Room 105	0420935285	Out of class meetings can be arranged by email or text message.	Yes	Yes
Discipline coordinator	Warren Smith		Building 20 Room 135	02 5114 5208	Meetings can be arranged by email	No	No

Other Useful Information

Academic Information

Course Evaluation and Development

One of the key priorities in the 2025 Strategy for UNSW is a drive for academic excellence in education. One of the ways of determining how well UNSW is progressing towards this goal is by listening to our own students. Students will be asked to complete the myExperience survey towards the end of each course.

Students can also provide feedback during the semester via: direct contact with the lecturer, the "On-going Student Feedback" link in Moodle, Student-Staff Liaison Committee meetings in schools, informal feedback conducted by staff, and focus groups (where applicable). Student opinions really do make a difference. Refer to the Moodle site for your course to see how the feedback from previous students has contributed to the course development.

Important note: Students are reminded that any feedback provided should be constructive and professional and that they are bound by the Student Code of Conduct.

https://www.gs.unsw.edu.au/policy/documents/studentcodepolicy.pdf

Equitable Learning Services (ELS)

Students living with neurodivergent, physical and/or mental health conditions or caring for someone with these conditions may be eligible for support through the Equitible Learning Services team. Equitable Learning Services is a free and confidential service that provides practical support to ensure your mental or physical health conditions do not adversely affect your studies.

Our team of dedicated **Equitable Learning Facilitators** (ELFs) are here to assist you through this process. We offer a number of services to make your education at UNSW easier and more equitable.

Further information about ELS for currently enrolled students can be found at: https://www.student.unsw.edu.au/equitable-learning

Academic Honesty and Plagarism

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW staff and students have a responsibility to adhere to this principle of academic integrity. All students are expected to adhere to UNSW's Student Code of Conduct. Find relevant information at: Student Code of Conduct (unsw.edu.au)

Plagiarism undermines academic integrity and is not tolerated at UNSW. It is defined as using the words or ideas of others and passing them off as your own, and can take many forms, from deliberate cheating to accidental copying from a source without acknowledgement.

For more information, please refer to the following:

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

Submission of Assessment Tasks

Special Consideration

Special Consideration is the process for assessing and addressing the impact on students of short-term events, that are beyond the control of the student, and that affect performance in a specific assessment task or tasks.

Applications for Special Consideration will be accepted in the following circumstances only:

- Where academic work has been hampered to a substantial degree by illness or other cause;
- The circumstances are unexpected and beyond the student's control;
- The circumstances could not have reasonably been anticipated, avoided or guarded against by the student; and either:

(i) they occurred during a critical study period and was 3 consecutive days or more duration, or a total of 5 days within the critical study period; or

(ii) they prevented the ability to complete, attend or submit an assessment task for a specific date (e.g. final exam, in class test/quiz, in class presentation)

Applications for Special Consideration must be made as soon as practicable after the problem occurs and at the latest within three working days of the assessment or the period covered by the supporting documentation.

By sitting or submitting the assessment task the student is declaring that they are fit to do so and cannot later apply for Special Consideration (UNSW 'fit to sit or submit' requirement).

Sitting, accessing or submitting an assessment task on the scheduled assessment date, after applying for special consideration, renders the special consideration application void.

Find more information about special consideration at: https://www.student.unsw.edu.au/special/consideration/guide

Or apply for special consideration through your MyUNSW portal.

Late Submission of assessment tasks (other than examinations)

UNSW has a standard late submission penalty of:

- 5% per day,
- capped at five days (120 hours) from the assessment deadline, after which a student cannot submit an assessment, and
- no permitted variation.

Students are expected to manage their time to meet deadlines and to request extensions as early as possible before the deadline.

Electronic submission of assessment

Except where the nature of an assessment task precludes its electronic submission, all assessments must be submitted to an electronic repository, approved by UNSW or the Faculty, for archiving and subsequent marking and analysis.

Release of final mark

All marks obtained for assessment items during the session are provisional. The final mark as published by the university following the assessment review group meeting is the only official mark.