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NAVL3620

SHIP HYDRODYNAMICS

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1. Staff contact details	3
Contact details and consultation times for course convenor	3
Contact details and consultation times for additional lecturers/demonstrators/lab staff	3
2. Course details	3
Credit Points	3

Student learning outcomes

This course is designed to address the learning outcomes below and the corresponding Engineers Australia Stage 1 Competency Standards for Professional Engineers as shown. The full list of Stage 1 Competency Standards may be found in Appendix A.

After successfully completing this course, you should be able to:

Learning Outcome	EA Stage 1 Competencies
1. Describe the flow around bluff and streamlined bodies, and to discuss the benefits of streamlining. Calculate the pressure distribution around a body in a 2. wind-	PE1.3, PE1.5, PE2.1, PE2.2, PE2.3

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16/10/17	12	Manoeuvrability standards and high-performance rudders. High-performance craft (hydrofoils, ACVs SES, etc.).
23/10/17	13	Revision and exam details tutorial.

*** Visit to AMC/University of Tasmania in Launceston

There will be a visit to the Australian Maritime College in Launceston, Tasmania, on the Thursday and Friday of Week 7, departing Sydney on Wednesday 6 September and returning Friday evening 8 September. The visit is to acquaint you with the facilities available including the towing tank for resistance and seakeeping tests, the cavitation tunnel, the model basin, the flume tank, the shiphandling simulator, etc., and the calculations required to extrapolate the resistance and seakeeping results to full size.

4	(a) Towing tank calcs and report. (b) Acceleration and deceleration (c) Hydrofoil lift, drag and cavitation.	10%	1-7	Lecture material up to week 10.	Week 11: 13/10/17	2 weeks after submission
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Exam

60%

All

All

Examination period:
4-

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For further information on exams, please see the

Papers from Fast Sea Transportation (FAST) conferences.

Papers from Fast Ferry International (FFI) conferences.

Additional materials provided in Moodle

This course has a website on Moodle which includes:

- copies

8. Academic Integrity

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW students have a responsibility to adhere to this principle of academic integrity. Plagiarism undermines academic integrity and is not tolerated at UNSW. *Plagiarism at UNSW is defined as using the words or ideas of others and passing them off as your own.*

9. A

All students are expected to read and be familiar with School guidelines and policies, available on the intranet. In particular, students should be familiar with the following:

- [Attendance, Participation and Class Etiquette](#)
- [UNSW Email Address](#)
- [Computing Facilities](#)
- [Assessment Matters](#) (including guidelines for assignments, exams and special consideration)
- [Academic Honesty and Plagiarism](#)
- [Student Equity and Disabilities Unit](#)
- [Health and Safety](#)
- [Student Support Services](#)

*David Lyons FRINA
20 June 2017*

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 Stage 1 Competencies for Professional Engineers

	Program Intended Learning Outcomes
PE1: Knowledge and Skill Base	PE1.1 Comprehensive, theory-based understanding of underpinning fundamentals
	PE1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing
	PE1.3 In-depth understanding of specialist bodies of knowledge
	PE1.4 Discernment of knowledge development and research directions
	PE1.5 Knowledge of engineering design practice
	PE1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice
PE2: Engineering Application Ability	PE2.1 Application of established engineering methods to complex problem solving
	PE2.2 Fluent application of engineering techniques, tools and resources
	PE2.3 Application of systematic engineering synthesis and design processes
	PE2.4 Application of systematic approaches to the conduct and management of engineering projects
PE3: Professional and Personal Attributes	PE3.1 Ethical conduct and professional accountability
	PE3.2 Effective oral and written communication (professional and lay domains)
	PE3.3 Creative, innovative and pro-active demeanour
	PE3.4 Professional use and management of information
	PE3.5 Orderly management of self, and professional conduct
	PE3.6 Effective team membership and team leadership