



Course Outline

SEPTEMBER 2015

Never Stop Learning

Enrich

G O E

**Process Improvement Maintenance
Engineering**

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1. Staff Contact Details

Contact details and consultation times for course convenor

Dr Erik van Voorthuysen
Electrical Building G17, Room 414
Tel: (02) 9385 4147
Email: erikv@unsw.edu.au

Consultation concerning this course is available immediately after the classes. Direct consultation requires prior booking via email.

Contact details and consultation times for additional lecturers demonstrators lab staff

Dr Ronald Chan
Electrical Building G17, Room 414
Tel: (02) 9385 4147
Email: ting.chan@unsw.edu.au

2. Course details

Credit Points:

This is a 6 unit-of-credit (UoC) course, and involves <insert hours> hours per week (h/w) of face-to-face contact.

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 about 9 h/w on this course. The additional time should be spent in making sure that you understand the lecture material, completing the set assignments, further reading, and revising for any examinations.

Contact Hours

Lectures	Day	Time	Location
Week 1 to 13	Wednesday	3pm – 6pm	OMB149

Summary of the Course

The course will introduce statistics, mathematics and associated techniques for analysing an industrial process for the purpose of maintaining a

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

Learning Outcome

5. Assessment

Assessment	Length	Weight	Learning outcomes assessed	Assessment criteria	Due date and submission requirements
Quiz 1	80 minutes	15%	1 and 3	All course content from weeks 1-13	19/8/15, 4:30pm
Quiz 2	80 minutes	15%	1 and 3	All course content from weeks 1-13	9/9/15, 4:30pm
Quiz 3	80 minutes	15%	2 and 3	All course content from weeks 1-13	7/10/15, 4:30pm

Calculators

You will need to provide your own calculator, of a make and model approved by UNSW, for the examinations. The list of approved calculators is shown at

<https://student.unsw.edu.au/exam-approved-calculators-and-computers>

It is your responsibility to ensure that your calculator is of an approved make and model, and to obtain an “Approved” sticker for it from the School Office or the Engineering Student Centre prior to the examination. Calculators not bearing an “Approved” sticker will not be allowed into the examination room.

Special Consideration and Supplementary Assessment

For details of applying for special consideration and conditions for the award of supplementary assessment, see [Administrative Matters](#), available on the School website and on Moodle, and the information on UNSW’s [Special Consideration page](#).

6. Expected Resources for students

Prescribed textbook

The prescribed textbook for this course is:

Modarres, Kaminsky and Krivtsov, Reliability Engineering and Risk Analysis – A practical guide, Macmillan, ISBN 978-0-8493-9247-4.

The prescribed textbook is available for purchase at the UNSW bookshop, and a number of copies can be borrowed from the UNSW library:

www.library.unsw.edu.au

Appendix A: Engineers Australia (EA) Professional Engineer Competency Standards

	Program Intended Learning Outcomes
PE Knowledge and 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
PE Engineering Application	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
PE 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