The University of New South Wales

Course Outline

Contents

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You should aim to spend about 12 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

	Day	**Time**	**Location**
Lectures	Monday	10:00 – 12:00	ChemicalSc M17 (F10-M17)
	Wednesday	15:00 – 17:00	Ritchie Theatre (G19-LG02)
(Web stream)	Any	Any	Moodle
Interactive tutorials	Wednesday	17:00 –18:00 (after lecture)	Ritchie Theatre (G19-LG02)
Tutorials		(*)	(note 1)
Lab (week 7)		(*)	L212 / J18 (note 2)
OTH (Tests) Week 3	Tuesday	18:00–19:00	Colombo Theatre A (B16-LG03), G1 Civil Engineering (H20-G1), Myers Theatre (M15-1001) (note 3)
Week 6	Tuesday	18:00–20:00	Colombo Theatre A (B16-LG03), G1 Civil Engineering (H20-G1), Myers Theatre (M15-1001) (note 3)

(*) Please see variations of the nominal timetable (due to holidays, etc) here:
http://timetable.unsw.edu.au/2020/MMAN3200.html

(1) Please refer to your class timetable for the learning activities in which you are enrolled and attend only those classes.

(2) This place may be reassigned (to be in other lab, in building J18) before week 7. In0 0 1 uBDC q216.41 562.75 141

latter part of the course, you will learn state space analysis, a powerful and general technique for studying dynamic systems.

The aim of MMAN3200, as an important part of control engineering, is to offer the knowledge of methodologies specifically designed for Laplace domain, which in turn enables easier and more efficient analysis of complex engineering systems. Numerous types of systems from real engineering applications will be used throughout the course to give you the practical aspects of the methods covered.

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.	Create linear mathematical models of a variety of systems;	PE1.2, PE2.1, PE2.2
2.	Analyse linear time invariant continuous systems in both time- and complex- domains;	PE1.2, PE2.1, PE2.2
3.	Understand and model systems through state space representation	PE1.2, PE2.1, PE2.2

4. Teaching strategies

Lectures in the course are designed to provide the basic theory behind the concepts taught. For most classes, lecture notes slides will be available online and beforehand. Students are encouraged to ask questions during the classes.

It is very important for third year students to be able to use multiple sources. For that reason, apart from the textbook, several recommended texts are listed. You are welcome to consult

6. Assessment

Assessment overview

Assessment	Group Project? (# Students per group)	Length	Weight	Learning outcomes assessed	Assessment criteria	Due date and submission