



numerical differentiation and integration, finite differences; differential equations, boundary value problems, initial value problems and partial differential equations.

See link to the virtual handbook:

<https://www.handbook.unsw.edu.au/undergraduate/courses/2020/CVEN2002/>

<b>COURSE PROGRAM</b>
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**Numerics Strand TERM 2, 2020**

<b>Date</b>	<b>Lecture Topic</b>	<b>Workshop / Lab</b>
3 June	Introduction to Numerical Methods:	
Week 1	Mathematical Modelling and Programming (Chapter 1 & 2)	
	Approximation	



Table 5.





**Appendix A: Engineers Australia (EA) Competencies**  
*Stage 1 Competencies for Professional Engineers*

	<b>Program Intended Learning Outcomes</b>
<b>PE1: Knowledge and Skill Base</b>	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
<b>PE2: Engineering Application Ability</b>	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 appton an pu01.05 48ET3.775419.88 433ET31 0 0erme reio43i