



School of Civil and Environmental Engineering  
 Term3, 2020  
**CVEN3101**  
**ENGINEERING OPERATIONS AND CONTROL**

**COURSE DETAILS**

Units of Credit	6		
Contact hours	6 hours per week		
Lecture	Mondays	11:00 ±13:00	Online
	Tuesdays	12:00 ±14:00	Online
	Tuesdays	14:00 ±16:00	Online
	Tuesdays	14:00 ±16:00	Online
	Tuesdays	14:00 ±16:00	Online
	Tuesdays	16:00 ±18:00	Online
	Tuesdays	16:00 ±18:00	Online
	Tuesdays	16:00 ±18:00	Online
	Wednesdays	14:00 ±16:00	Online
	Wednesdays	14:00 ±16:00	Online
	Wednesdays	14:00 ±16:00	Online
	Wednesdays	14:00 ±16:00	Online
	Wednesdays	16:00 ±18:00	Online
	Wednesdays	16:00 ±18:00	Online

Course Coordinator and Lecturer: Dr. Khalegh Barati  
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Lecturer: Dr. Johnson Shen  
 Professor David Carmichael  
 Mr. Robert Holdom

**INFORMATION ABOUT THE COURSE**

This course is an introduction to general principles of construction organisation and control of engineering operations. It starts by looking at cost estimation, safety issues, and quality management in construction projects. This course also addresses project management concepts including PMBOK review, management tools, project scheduling and resource planning. Additional issues considered in the course include important economic and financial issues. Finally, the course covers engineering ethic and its principles in construction industry.



Learning Outcome		EA Stage 1 Competencies
1.	Become familiar with definitions of engineering and management work	PE1.3, PE1.5, PE2.1, PE2.2
2.	Understand and use project management tools such as: Gantt chart and CPM charts	PE1.1, PE1.3, PE2.4, PE3.4
3.	Appreciate the key aspects in construction operations including time, cost, safety, ethic, and quality	PE1.2, PE2.3, PE2.4, PE3.4
4.	Understand the elements of economics and risk management	PE1.3, PE1.6, PE2.3, PE3.4
5.	Identify and explain key theories and concepts of project planning	PE1.1, PE1.3, PE2.1, PE2.4

For each hour of contact it is expected that you will put in at least 1.5 hours of private study.

COURSE PROGRAM
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Term 3 2020

Date	Topic and Lecture Content	Demonstration Content	Lecturer	Assessment Due
14/09/2020 (Week 1)	Course Introduction/ Cost Estimation 1			

1.





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