



School of Civil and Environmental Engineering

Term 2, 2020

CVEN9415:

TRANSPORT SYSTEMS PART 2

#### COURSE DETAILS

<b>Units of Credit</b>	6	
<b>Contact hours</b>	4 hours per week	
<b>Class</b>	Wednesday, 12:00 – 14:00	Weeks 1 – 5 and 7 – 10: Online-blackboard Ultra
<b>Workshop</b>	Wednesday, 14:00 – 16:00, Thursdays, 14:00 – 16:00, Thursdays, 16:00 – 18:00	Weeks 1 – 5 and 7 – 10: Online-blackboard Ultra
<b>Course Coordinator and Lecturer</b>	Dr. Ali Ardeshiri Email: <a href="mailto:A.Ardeshiri@unsw.edu.au">A.Ardeshiri@unsw.edu.au</a> Office:	

traffic intersections in real-world settings.

The learning goals that this course aims to achieve and details how the achievement of these goals will be assessed are described as follows:

- < Understand operations research concepts applicable in the field of transport engineering.
- < Describe queuing theory concepts in transport context
- < Compare modelling techniques (deterministic and stochastic) adopted in transport engineering practice.
- < Apply queueing models and data analysis to real-world transport problems using real data.
- < Generalise on modelling results to produce policy recommendations

## TEACHING STRATEGIES

### Private Study

- < Review lecture material and textbook
- < Do set problems and assignments
- < Join Moodle discussions of problems
- < Reflect on class problems and assignments
- < Download materials from Moodle
- < Keep up with notices and

5.	<i>Design a research question, methodology and data approach for a real-world problem.</i>	<i>PE1.1, PE2.3, PE2.4, PE3.6</i>
6.	<i>Apply statistical methods to analyse real-world data.</i>	<i>PE1.1, PE1.2, PE1.3, PE2.2</i>

7.





<b>ASSESSMENT OVERVIEW</b>
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<b>Item</b>	<b>Length</b>	<b>Weighting</b>	<b>Learning outcomes assessed</b>	<b>Assessment Criteria</b> ( <i>this needs to explicitly describe what students are expected to demonstrate in the task</i> )	<b>Due date and submission requirements</b>	<b>Deadline for absolute fail</b>	<b>Marks returned</b>
Quiz 1	1 hour	20%	PE1.1, PE1.2, PE1.3, PE1.6	The Moodle quiz will assess students theory which will be applicable to the rest of the assessments in the course. The questions will be marked based on technical accuracy.	19-Jun-2020	19-Jun-2020	24-Jun-2020
Assessment 1	5 pages	20%	PE1.1, PE1.2, PE1.3, PE2.2	This assignment will be based on the topics covered in the Week 4 lecture and workshop. The and interpret the available real-world traffic data, which will also be used in the group project assessment later in the course. The questions will be marked based on technical and methodological accuracy.	10-Jul-2020	17-Jul-2020	24-Jul-2020

Assessment 2 12 pages

commencing project work. The aim of the project is to give students an experience of the practice followed by transport consultants in proposing solutions to real-world problems in transport. Students will also get experience working in a team environment and collaborating with team members during this project activity. The report will be

## RELEVANT RESOURCES

- < Roess, Roger P., Elene S. Prassas, William R. McShane. Traffic Engineering. Third Edition, Upper Saddle River: Pearson Prentice Hall, 2004 (ISBN 0-13-142471-8)
- < Vukan Vuchic. Urban Transit Operations, Planning and Economics John Wiley & Sons, 2005;
- < Daganzo, C. Fundamentals of Transportation and Traffic Operations, Pergamon-Elsevier, Oxford, U.K. (1997)
- < de Ne - Engineering Planning and Technology
- < - For Services and Manuf
- < Ravindran, A., Phillips, Don T. and Solberg, James J. "Operations Research - Principles and Practice", John Wiley and Sons, 1987.
- < Additional resources will be made available through Moodle

## DATES TO NOTE

Refer to MyUNSW for Important Dates available at:

<https://student.unsw.edu.au/dates>

## PLAGIARISM

Beware! An assignment that includes plagiarised material will receive a 0% Fail, and students who plagiarise may fail the course. Students who plagiarise are also liable to disciplinary action, including exclusion from enrolment.



