



## School of Civil and Environmental Engineering

Term 1, 2020

# GMAT3220 Geospatial

# Information Systems

### COURSE DETAILS

<b>Units of Credit</b>	<b>6</b>	
<b>Contact hours</b>	6 hours per week	
<b>Class</b>	Tuesday 9:00 – 11:00 (Wk 1-2, 4-10)	Ainsworth 202
<b>Workshop</b>	Thursday 11:00 – 12:00 (Wk 1-2, 4-10)	CE G1
<b>Laboratory</b>	Friday 11:00 – 14:00 (Wk 1-2, 4-7, 9-10)	CE 201
	Tuesday 11:00 – 14:00 (Wk 11)	CE 201
<b>Course Coordinator and Lecturer</b>	Samsung Lim	
	email: s.lim@unsw.edu.au	
	office: CE 411	
	phone x54505	

### INFORMATION ABOUT THE COURSE

See link to virtual handbook

<https://www.handbook.unsw.edu.au/undergraduate/courses/2020/gmat3220>

### OBJECTIVES

This course aims to provide the practical training that needs to be understood to work effectively and critically with GIS, and provides an environment that fosters the following attributes:

- ◁ the skills involved in scholarly enquiry: Significant – data analysis skills
- ◁ an in-depth engagement with relevant disciplinary knowledge in its interdisciplinary context: Significant – understanding coordinate systems and datums
- ◁ the capacity for analytical and critical thinking and for creative problem solving: Significant – in the term project
- ◁ the ability to engage in independent and reflective learning: Some – in the lab exercises

- < the skills to locate, evaluate and use relevant information (Information Literacy): Some – in preparing for the term project
- < the capacity for enterprise, initiative and creativity:



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Reading these tables should aid your understanding of what the lecturer is looking for in your report in relation to the specific marking criteria.

Table 1.

**ASSESSMENT OVERVIEW**



## 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 approaches to the conduct and management of engineering projects
<b>PE3: Professional and Personal Attributes</b>	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