COURSE DETAILS	
Units of Credit	6
Contact hours	4 hours per week
Lecture	Tuesday, 10,.fr a2- TJETQq155.83

OBJECTIVES

Channels, Rivers, and Estuaries (CVEN 9620) aims to develop an appreciation of theory of hydrodynamics,

Online (Moodle)	¶ Access/download [illegible]

COURSE PROGRAM

Date	Topic	Lecture/Workshop Content	Lecturer
15/09/2020 (Week 1)	Course introduction Introduction to hydraulics, hydrology, hydrodynamics	We provide a general overview of the course and a big picture of river and estuaries. Specific topics covered include: Open channel flow and Channel design and Mixing **Students will be asked to describe a River/Estuary of their choice during the interactive portion of the lecture.**	WG
22/09/2020 (Week 2)	Sediment Transport Theory	Thresholds of sediment motion Bed load Suspended load *livestreaming of sediment transport lab	KS
29/09/2020 (Week 3)	Rivers	River geomorphology Floodplain modelling *livestreaming of river lab ** The following content which would normally be in week 4 will be pre-recorded to allow for a field trip in Week 9 River engineering structures River management Natural channel design	KS
07/10/2020 (Week 4) ***Quiz 1 is this week**	*Geospatial methods for river and estuarine management	** Week 9 content will be presented here to allow for a field trip in week 9. Remote sensing approaches for quantifying floodplain inundation dynamics, river width, bathymetry, river flow, water quality (e.g. algal blooms) and estuarine geomorphology. Data-driven modelling and analysis techniques for integrated river and estuary management.	Guest Lecture
13/10/2020 (Week 5) ***Assignment 1 is released**	Inlets and estuaries	Tides Tidal inlet and stability Estuarine classification and processes	KS
20/10/2020 (Week 6)		***Flexibility week for all courses (non-teaching)***	
27/10/2020 (Week 7)	Inlets and estuaries	Introduction to Estuarine Hydrodynamics and Hydraulic Modelling	WG

Appendix A: Engineers Australia (EA) Competencies

Stage 1 Competencies for Professional Engineers

	Program Intended Learning Outcomes
PE1: Knowledge and Skill Base	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