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# 1. Staff contact details

## Contact details and consultation times for course convenor

Name: Dr Susann Beier

Tel: (02) 9385 57580

Email: [s.beier](mailto:s.beier)

## Contact hours

Day	Time	Delivery Mode
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<b>Week</b>	<b>Topic</b>	<b>Delivery Mode</b>	<b>Suggested Readings</b>	<b>Assessment</b>
4	Bio fluidics	Online	<b>Biofluid Mechanics:</b> Chapter 4, 5	
5	Micro and Biofluidic devices	Online		Quiz 1 (30%) - 35 Q (hard) on W1-4

## 6. Assessment

### Assessment overview

Assessment	Group Project? (# Students per group)	Length	Weight	Learning outcomes assessed	Assessment criteria	Due date and submission requirements	Deadline for absolute fail	Marks returned
Micro-fluidics paper-based device**	Yes (5-6)	Video, 3-5 minutes	20%	2, 3, 4 and 5	Peer reviewed, topics assessed include design, execution, analysis, complexity, and creativity	Week 3, Friday 5pm via Moodle	Week 4, Monday 5pm	1 week after submission
Quizzes (2)	No	60 minutes each	50% (30% Q1 and 20% Q2)	1	Lecture materials from weeks 1-4 (Quiz 1) and 5-7 (Quiz 2)			

## Assignments

### *Micro-fluidics paper-based device*

The students will design and analyse a microfluidics paper-based device with freely available material and school resources. The students will undertake this in teams and will present their work in form of a video.

### *Quizzes*

The students will be asked to calculate relevant problem scenarios and answer basic to complex questions to demonstrate their understanding of the difference between macro and microfluidics and their relevance for biological systems.

### *Micro- and Biofluidics resreach – virtual conference*

The students will present a state of the art biofluidic problem and related fluidics device to meet a need and overcome a real-life problem. The teams of students can choose from a range of latest research to present, discuss and evaluate these devices.

### *Contribution*

Additional digital support material and a visual lab tour relates to micro-device fabrication, ANFF lab, 3D printing and micro-mixer simulation are provided. Participation and interest in these materials as weQ 8Qq0.000008871 0 595 229.25 381.65 Tm073(u)6(atio)3(n )JTETuand Bio







understanding academic integrity and how not to plagiarise. They also hold workshops and can help students one-on-one.

You are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and the proper referencing of sources in preparing all assessment tasks.

If plagiarism is found in your work when you are in first year, your lecturer will offer you assistance to improve your academic skills. They may ask you to look at some online resources, attend the Learning Centre, or sometimes resubmit your work with the problem fixed. However more serious instances in first year, such as stealing with t 26.030 595.32 841.92 reW\* @04

# 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