



# ENGG8106

## Engineering Entrepreneurship

Session 1, Weekday attendance, North Ryde 2021

*School of Engineering*

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#### Disclaimer

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#### Notice

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

## General Information

Unit convenor and teaching staff

Lecturer

Viken Kortian

[viken.kortian@mq.edu.au](mailto:viken.kortian@mq.edu.au)

Contact via email

50 Waterloo Rd

By appointment via email

Lecturer

June Ho

[june.ho@mq.edu.au](mailto:june.ho@mq.edu.au)

Contact via email

50 Waterloo Rd

By appointment via email

Nicholas Tse

[nicholas.tse@mq.edu.au](mailto:nicholas.tse@mq.edu.au)

Credit points

10

Prerequisites

Admission to MEngMgt or MEngElecEng

Corequisites

Co-badged status

Unit description

The aim of this unit is to provide students with entrepreneurial skills that are needed to build scalable startups in addition to entrepreneurial behaviours that are required to work in organisations within an engineering context. It will provide students with fundamental knowledge and procedures of creating successful ventures. The course will include the process of understanding customer requirements and converting these into specifications of a product and then designing a process to produce these. The course will also include other aspects that support entrepreneurship such as business planning, financial management, sources of finance, crowdfunding, entrepreneurial behaviour and technology management.

## Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are

available at <https://www.mq.edu.au/study/calendar-of-dates>

## Learning Outcomes

On successful completion of this unit, you will be able to:

- ULO1:** Apply the fundamental knowledge and theoretical frameworks related to entrepreneurial behaviour in business management.
- ULO2:** Build an entrepreneurial mindset for value creation in existing business and create new business.
- ULO3:** Develop comprehensive knowledge business planning, financial management and technology management to develop successful ventures.
- ULO4:** Identify and pursue business opportunities, and create value for all stakeholders.
- ULO5:** Apply the process of capturing market and customer needs and converting these to a viable and sustainable products.

## General Assessment Information

Grading and passing requirement for unit In order to pass this unit, a student must obtain a mark of 50 or more for the unit (i.e. obtain a passing grade P/ CR/ D/ HD). For further details about grading, please refer below in the policies and procedures section. Late submissions and Resubmissions For assignments handed in late, the following penalties apply 0-48hrs: -50%, >48hrs: -100%. Extenuating circumstances will be considered upon lodgement of a formal notice of disruption of studies. Resubmissions of work are generally allowed unless stated prior or otherwise.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Business Proposal</a>	40%	No	Week 12
<a href="#">Active Engagement</a>	10%	No	All Weeks
<a href="#">Midterm group project</a>	20%	No	Week 7
<a href="#">Case Studies</a>	30%	No	Weeks 2, 4, 6, 10, & 11

### Business Proposal

Assessment Type <sup>1</sup>: Project  
 Indicative Time on Task <sup>2</sup>: 30 hours  
 Due: **Week 12**  
 Weighting: **40%**

Written report on a new venture with the purpose of gaining funding to start the business

On successful completion you will be able to:

- Apply the fundamental knowledge and theoretical frameworks related to entrepreneurial behaviour in business management.
- Build an entrepreneurial mindset for value creation in existing business and create new business.
- Develop comprehensive knowledge business planning, financial management and technology management to develop successful ventures.
- Identify and pursue business opportunities, and create value for all stakeholders.
- Apply the process of capturing market and customer needs and converting these to a viable and sustainable products.

## Active Engagement

Assessment Type <sup>1</sup>: Simulation/role play

Indicative Time on Task <sup>2</sup>: 12 hours

Due: **All Weeks**

Weighting: **10%**

Active Engagement and Contribution in the tutorial activities

On successful completion you will be able to:

- Apply the fundamental knowledge and theoretical frameworks related to entrepreneurial behaviour in business management.
- Build an entrepreneurial mindset for value creation in existing business and create new business.
- Develop comprehensive knowledge business planning, financial management and technology management to develop successful ventures.
- Identify and pursue business opportunities, and create value for all stakeholders.
- Apply the process of capturing market and customer needs and converting these to a viable and sustainable products.

## Midterm group project

Assessment Type <sup>1</sup>: Project

Indicative Time on Task <sup>2</sup>: 16 hours

Due: **Week 7**

Weighting: **20%**

Midterm group project and team work activity

On successful completion you will be able to:

- Apply the fundamental knowledge and theoretical frameworks related to entrepreneurial behaviour in business management.
- Build an entrepreneurial mindset for value creation in existing business and create new business.
- Develop comprehensive knowledge business planning, financial management and technology management to develop successful ventures.
- Identify and pursue business opportunities, and create value for all stakeholders.
- Apply the process of capturing market and customer needs and converting these to a viable and sustainable products.

## Case Studies

Assessment Type <sup>1</sup>: Case study/analysis

Indicative Time on Task <sup>2</sup>: 12 hours

Due: **Weeks 2, 4, 6, 10, & 11**

Weighting: **30%**

Case studies on Engineering Entrepreneurship

On successful completion you will be able to:

- Apply the fundamental knowledge and theoretical frameworks related to entrepreneurial behaviour in business management.
- Build an entrepreneurial mindset for value creation in existing business and create new business.
- Develop comprehensive knowledge business planning, financial management and technology management to develop successful ventures.
- Identify and pursue business opportunities, and create value for all stakeholders.
- Apply the process of capturing market and customer needs and converting these to a viable and sustainable products.

<sup>1</sup> If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

<sup>2</sup> Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

## Delivery and Resources

Technology Venture: From Idea to Enterprise (McGraw Hill)

*Thomas Byers, Richard Dorf, and Andrew Nelson*

## Unit Schedule

Week	Topic	Content / Reference	Tutorials
1	Course overview. Background to innovation and entrepreneurship.	Ch.1	Dow Corning Deck Protector
2	Opportunities and Strategies	Ch. 2, 3, 4, 5	Dr Johns Products*
3	Concept Summary & Risk	Ch. 6 & 7	Ecowash- Lean Start Up
4	Product Development. Marketing and Sales. Types of Ventures.	Ch. 8, 9, & 10	Google Glass Development*
5	Intellectual Property – Patent Searching	Guest Lecturer	
6	Intellectual Property – Patenting Process	Guest Lecturer	Molecular Insights Pharmaceuticals*
7	New Enterprise, Resources and Operations <b>Mid Term Assignment Due</b>	Ch 12, 13, & 14	DJI Innovation – Product Development for Start Ups
8	Entrepreneurship Simulation – The Start Up Game		
9	Design for Six Sigma		DfSS at Ford.
10	The Financial Plan & Sources of Capital	Ch.16, 17, & 18	Equity Crowdfunding Symbid Entering the US*
11	Deal Presentations, Negotiations and Leading Ventures to Success	Ch 19 & 20	How to pitch a brilliant idea. *

12	Presentation / Pitch		
	<b>Final Assignment Due</b>		

## Tutorials

\* Discuss in class and hand in Case Study Questions

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies \(https://students.mq.edu.au/support/study/policies\)](https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au) and use the [search tool](#).

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

## Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [ask.mq.edu.au](http://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

## Learning Skills

Learning Skills ([mq.edu.au/learningskills](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

## Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

## Student Enquiries

For all student enquiries, visit Student Connect at [ask.mq.edu.au](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about\\_us/offices\\_and\\_units/information\\_technology/help/](http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/).

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.