



ADVANCED MANUFACTURING ENTREPRENEURSHIP PROGRAM

Area of Study	Innovation in the Advanced Manufacturing and Logistics industries
Supervisor	Problem Sponsor (e.g. Innovation Collaboration Adelaide, BAE Systems, Cisco, Micro-X, Tesla)
Topic Coordinator	Carla Dias Wadewitz (Flinders University)
Study Period	Study Period 3 (October - December)

What is the **AMEP**?

Through the Advanced Manufacturing Entrepreneurship Program (AMEP), you will work in multidisciplinary teams (4-5 students) to solve some of the most exciting challenges of the Australian Advanced Manufacturing (including Logistics) industry.

The AMEP is offered as a Work Integrated Learning (WIL) Topic and will see you work with the Problem Sponsor supported by the Topic Coordinator and industry mentors.

Here are some examples of the problems you might work on:

- Developing a strategy for companies using advanced manufacturing to promote sustainability and to implement net carbon zero initiatives/strategies.
- Defining and analysing the human factors in organisations that help or hinder adoption of technologies that continue to rapidly change.
- Developing a strategy to increase traceability of products and services to measure provenance and carbon footprint of a national or global organisation.
- Analysing how SMEs can be more supply-chain resilient when faced with large corporations pre-purchasing production.
- Rethinking the strategy for manufacturers using Just in Time (JIT) production continuously being disrupted by Covid-19 and other global challenges such as armed conflict.
- Addressing whether the current open standards and open networks for digital tools are the pathway for the future of the next generation of internet technologies used in advanced manufacturing and logistics.
- Analysing whether Decentralized Autonomous Organizations (DAOs) can be an appropriate response to the makeup of the structure of virtual partnerships as corporations become more and more agile and SMEs will need to partner in order to compete for opportunities and quickly respond to challenges as they emerge.

How can I study the **AMEP**?

You can choose any of the 4 core topics in Study Period 3 and change it to the Advanced Manufacturing Entrepreneurship Program.

Study period 1 (Feb to May)

4 core topics:

- Economic Environments: Assessing Current and Future Markets
- Driving Financial Performance
- Marketing in a Digital Age
- Building Teams and Networks

Study period 2 (Jul to Sept)

4 core topics:

- Researching Markets
- Ethics, Sustainability and Governance
- Business Analytics
- Trends in Business Finance

Study period 3 (Oct to Dec)

4 core topics:

- Legal Signposts for Decision Makers
- Creating Resilient Supply Chains and Procurement
- Emerging Business Models: Disruptions, Collaboration and Competition
- Leading a Future Workforce

How does the **AMEP** work?

In multidisciplinary teams, you and your fellow students will be given industry challenges to solve over a period of 10 weeks. These challenges are defined by the Problem Sponsors working in collaboration with Flinders University.

The AMEP is a hands-on program that immerses student teams by having them test their initial hypotheses outside the classroom. Every week teams will work on developing their projects leveraging on the knowledge and tools provided in class. Teams interact weekly with the Problem Sponsor for knowledge sharing, support and guidance and with the Topic Coordinator who will be delivering the lectures and workshops.

From the first day of class, teams get out of the classroom and learn by doing. In the class, the teams are not just developing the solution to the challenge/problem provided by the Problem Sponsor, they are also validating (or invalidating) their hypotheses by exploring those problems/challenges through conversations with Industry experts.

What will you **learn**?

- An understanding of, and the ability to apply, the Design Thinking Framework, Customer Discovery and Validation, and the Business Model Canvas.
- A strong understanding of the Australian Advanced Manufacturing and Logistics industries.
- A strong understanding of the context and tools of Industry 4.0.
- The development and application of future workforce skills:
 - Complex problem-solving
 - Critical thinking
 - Creativity
 - Collaboration and teamwork
 - Judgment and decision-making
- Cognitive flexibility
- Negotiation
- Building professional networks
- Prototyping
- The development and application of the following research skills:
 - Market research
 - Qualitative interviews
 - Qualitative data analysis
 - “White Paper” drafting
 - Implementing a research plan.

Indicative **Syllabus**

Week 1	<i>Workshop 1</i>	<i>Working in Advanced Manufacturing & Logistics Innovation: what is it and reasons to innovate (Growth Mindset)</i>
Week 2	Lecture 1	Context of Industry 4.0 Problem Exploration – Design Thinking Framework
Week 3	Lecture 2	Customer Driven Innovation Customer Discovery & Validation Beneficiaries, Stakeholders, Customers
Week 4	Lecture 3	Business Model Canvas Value Proposition
Week 5	Lecture 4	Product Market Fit Product Sponsor Fit
Week 6	Lecture 5	Customer Relationships Channels
Week 7	Lecture 6	Activities/Resources/Key Partners Revenues & Costs
Week 8	Lecture 7	Prototyping/MVP/Digital Twin Decision Criteria for Industry 4.0 user design-driven innovation
Week 9	Lecture 8	Valuation & Funding Roadmap for Implementation of the Solution
Week 9	<i>Workshop 2</i>	<i>Presentation Skills Training</i>
Week 10	<i>Workshop 3</i>	<i>Final Presentations</i>

What is the time commitment for the AMEP during the Study Period?

Every week, you'll attend a 3-hour session (Workshop, Lecture or Combination of both) with the Topic Coordinator. These sessions are outlined in the Indicative Syllabus.

The expected total workload (contact and independent study) is 150 hours, which include 30 hours of sessions and 120 hours of liaison with the Problem Sponsor and mentors, as well as independent study, team work and assessment. The allocation of the 120 hours will be decided by the student, Problem Sponsor and Topic Coordinator.

Find out more

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Study in 2022

Flinders.edu.au/mba