MONASH University

Engineering

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What to expect?
Outline

- Program Outcomes (POs)
- Unit Guides
- Units at Monash
- University Study and expected workload
- Notes about first year units
- Timetable allocations
- Learning Experience
Program Outcomes (PO)

We have 12 program outcomes in each discipline. Each outcome is related to one specific aspect of engineering to be achieved at the end of your four year study. For example:

1. Engineering Knowledge: Apply knowledge of science and engineering fundamentals and achieve specialization in Mechanical Engineering discipline

2. Problem Solving and Analysis: Identify, formulate, analyse and solve complex engineering problems, and make appropriate conclusions

3. Design/Development of Solutions: Design solutions for complex engineering problems

4. Research-based Investigation of Systems: Investigate complex engineering problems and systems using research-based knowledge and methods
Some other POs

7. Environment and Sustainability: Demonstrate knowledge of and need for sustainable development and understand the environmental impacts of engineering solutions

8. Professional Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

9. Communicate effectively both in oral and written forms, not only with engineers but also with the community at large
Please check the Unit Guides

- We also have learning outcomes in each unit which are mapped and related to those 12 programme outcomes. At the end of each unit it is expected that you achieved some of the program outcomes.

- PLEASE CHECK THE UNIT GUIDE IN THE MOODLE ON THE LEARNING AND PROGRAM OUTCOMES PRIOR TO THE SEMESTER COMMENCEMENT.
Units at Monash

- Units offered at Monash have been structured to achieve the POs
  - Unit guides show mapping of unit learning outcomes (LOs) to POs
- POs and PEOs help to achieve the overall Monash attributes
- Each unit is 6 credit hours
  - Typically 6 contact hours
  - 6 hours independent study
University Study and expected workload

- No one will force you to do anything here
- Environment is very different from high school
- You need to take responsibility
  - Attend all classes
  - Review regularly
  - Hand in assignments on time
  - Understand your work
- Failing units could be costly
  - Academic Progress Committee
Notes about first year units

- ENG1001: Engineering design A: lighter, faster, stronger
- ENG1090: Foundation Mathematics
- Design units like ENG1001 and later ENG1002 and ENG1003. These units are based on practical design assignments and flip learning so you need to work on specific projects in a group, answering to quiz questions and watch the lecture videos before attending to the lectures.

http://moodle.vle.monash.edu/
Timetable Allocations

- Lab and tutorials allocations will be done for you
  - Check your timetable in Allocate+
  - Any question on your units selection you can contact your first year coordinator by email pooria.pasbakhsh@monash.edu
Learning Experience

- Industry training
- Engineering Leadership Program
  - UROP
- Buddy- Buddee
- Mentor- Mentee program
- Exchange & transfer
- Design competitions (IEM, Shell ECM, Freescale...)

Nichols Choo, The Sir John Monash Medal

Freescale Smart Car Competition

Training with ServerPark

IEM Chem Eng Design – Winner
GOOD LUCK!