MASTER OF ADVANCED ENGINEERING

CRICOS code: 088686D

- Ranked 1 in Australia for Engineering**
- Ranked 36 in the world for Engineering*
- Ranked 24 in the world for Chemical Engineering*
- Ranked 30 in the world for Civil and Structural Engineering*
- Ranked in the top 100 in the world for Electrical and Electronic Engineering, and Mechanical Engineering*
- Ranked 48 in the world for Materials Science*

MONASH UNIVERSITY IS RANKED:

- 60 in the world universities (QS World University Rankings 2018)
- 80 in the world universities (Times Higher Education World University Rankings 2018)
- 78 in the world (Academic Ranking of World Universities 2017)

COURSE CODE

E6001

INTAKES

February and July

FEES PER YEAR

A$

STUDY GRANTS/BURSARIES

A$

DURATION

2 years OR 1 year full time

CAMPUS

Clayton

INDUSTRY EXPERIENCE

INVOLVES

- Project work for real clients
- Professional practice training
- Small research project

ENTRY REQUIREMENTS

ACADEMIC

Depending upon your prior qualifications and experience you will be eligible for entry credit which reduces the duration of the program.

- 2 years – Bachelor's degree in engineering with a 65% average mark
- 1 year – Bachelor's degree in engineering with a 70% average mark, OR Bachelor's degree in Engineering with a 65% average mark + 3 years of relevant work experience.

ENGLISH REQUIREMENTS

IELTS/TOEFL

Direct entry

IELTS: 6.5 overall and no other band less than 6.0

TOEFL iBT: 79 overall, 21 writing, 13 reading, 12 listening, 18 speaking

Not enough score for direct entry?

Apply for the Monash Bridging Program

FURTHER INFORMATION

monashcollege.edu.au/courses/english/monash-english-bridging

MORE INFORMATION

monash.edu/engineering/master-advanced-engineering

COURSE STRUCTURE

Students in one-year program complete Part A, B and C.

Students in two-year program also complete additional Part D and E.

PART A. COMMON CORE UNITS – 2 UNITS

ENG5001 Advanced engineering data analysis, and

ENG5002 Engineering entrepreneurship OR **ENG5008** Work integrated learning

PART B. DISCIPLINE CORE UNITS – 4 UNITS (FROM CHOSEN SPECIALISATION)

ADDITIVE MANUFACTURING ENGINEERING

MEC5881 Engineering systems performance analysis

MEC5891 Design for additive manufacturing

MTE5886 Additive manufacturing of metallic materials

MTE5887 Additive manufacturing of polymeric and functional materials

CHEMICAL ENGINEERING

CHE5881 Advanced reaction engineering

CHE5882 Biomass and bio-refineries

CHE5883 Nanostructured membranes for separation and energy production

CHE5884 Process modelling optimisation

CIVIL ENGINEERING (INFRASTRUCTURE SYSTEMS)

CIV5885 Infrastructure dynamics

CIV5886 Infrastructure geomechanics

CIV5887 Infrastructure rehabilitation and monitoring

CIV5888 Advanced computational methods

CIVIL ENGINEERING (TRANSPORT)

CIV5301 Advanced Traffic Engineering

CIV5302 Traffic Engineering and Management

CIV5305 Transport demand modelling

CIV5314 Planning urban transport systems

CIVIL ENGINEERING (WATER)

CIV5881 Ground water hydrology

CIV5882 Flood hydraulics and hydrology

CIV5883 Surface water hydrology

CIV5884 Water sensitive stormwater design

ELECTRICAL ENGINEERING

ECE5881 Real-time system design

ECE5882 Advanced electronics design

ECE5883 Advanced signal processing

ECE5884 Wireless communications

MATERIALS ENGINEERING

MTE5881 Advanced materials characterisation and experimental methods

MTE5882 Advanced polymeric materials

MTE5883 Environmental durability and protection of metals and engineering materials

MTE5884 Advanced photovoltaics and energy storage

MECHANICAL ENGINEERING

MEC5881 Engineering systems performance analysis

MEC5882 Instrumentation, sensing and monitoring

MEC5883 Mechanical systems design

MEC5884 Sustainable engineering systems

MEDICAL ENGINEERING

BMA5011 Introduction to human bioscience for engineering

MTE5885 Biomaterials and biomechanics

ENG5007 Translation and commercialisation of medical technologies

MEC5889 Medical device technologies

RENEWABLE AND SUSTAINABLE ENERGY ENGINEERING

MTE5884 Advanced photovoltaics and energy storage

MEC5888 Renewable energy systems

MEC5885 Energy efficiency and sustainability engineering

ECE5886 Smart grid

PART C. ENHANCEMENT UNITS – 2 UNITS

Enhancement units are designed to provide breadth and are taken from either another engineering specialisation or in complementary areas such as information technology and business.

For more information visit: monash.edu.au/pubs/handbooks/courses/E6001.html

PART D. TECHNICAL ELECTIVE UNITS – 4 UNITS

The two year version of the program offers a range of technical electives that will deepen your understanding of specific topics and advanced elements within your specialisation.

For more information visit: monash.edu.au/pubs/handbooks/courses/E6001.html

PART E. ENGINEERING PROJECT UNITS – 4 UNITS

ENG5003 Advanced design project A

ENG5004 Advanced design project B

ENG5005 Engineering project A

ENG5006 Engineering project B

MONASH University

* (QS World University Rankings by subject 2018)

** (Times Higher Education World University Rankings by subject 2018)

ENGINEERS AUSTRALIA

GROUP OF EIGHT AUSTRALIA

Produced by SMC Monash: 18P-0352. May 2018. CRICOS provider: Monash University 00008C.