



## MSc Mechanical Engineering

### Overview

Mechanical Engineering is a discipline with a long history of technology innovation, and it is at the frontier of a new wave of technological breakthroughs that are characterised by digitalisation, connectivity, and intelligence. With world-class faculty, facilities, and a rigorous but flexible curriculum, the MSc in Mechanical Engineering builds a solid foundation in fundamental theories on structures, dynamics, and controls, and provides students with the latest tools for analysing, designing, producing, and servicing various products and systems.

### School of Mechanical & Aerospace Engineering

### Who should apply

The programme caters to both full-time and part-time students who would like to pursue a professional career in *research and development, manufacturing and servicing, technology management, facility management*.

Graduates from the programme are expected to find jobs and advance their careers in a wide range of industry sectors that include: *Electronics, Semiconductors, Machinery and Robotics, Building and Construction, Pharmaceutical, Aerospace, Defence, Marine, Oil and Gas*.

# PROGRAMME STRUCTURE

## Option 1: Coursework Only (Default Option)

10 Courses

4 Core & 6 Electives

## Option 2: Coursework and Dissertation

8 Courses + Dissertation

4 Core & 4 Electives

# DURATION OF THE PROGRAMME

## Part-Time Study

Minimum Candidature: 2 years (4 semesters)

Maximum Candidature: 4 years (8 semesters)

## Full-Time Study

Minimum Candidature: 1 year (2 semesters)

Maximum Candidature: 2 years (4 semesters)

# CORE COURSES

**M6104:** Advanced Mechanics of Materials

**M6801:** Advanced Thermal Engineering

**M6802:** Engineering Measurements

**M6803:** Computational Methods in Engineering

# ELECTIVE COURSES

**L6103:** Supply Chain Analysis & Design

**M6102:** Advanced Materials Engineering

**M6141:** Quality Engineering

**M6205:** Systems Simulation & Modeling

**M6235:** Advanced Manufacturing Processes

**M6303:** Fundamentals of Precision Engineering

**M6401:** Product Design & Development

**M6423:** Prototype & Rapid Prototyping

**M6816:** Laser Assisted Manufacturing

# QUOTE

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Courses in this programme cover a lot of information in the engineering field, delivered in concise chunks that exhibit clear, logical and effective structure.

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Zhou Xiaoyue

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It is a very beneficial qualification which serves the changing needs of both students and the society. This programme equips me with new skills and knowledge to enhance my current career.

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Tao Min Yin  
(Class of 2020)

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**Website:** [http://mae.ntu.edu.sg/Programmes/ProspectiveStudents/Graduate\(Coursework\)/MECH](http://mae.ntu.edu.sg/Programmes/ProspectiveStudents/Graduate(Coursework)/MECH)



# PROGRAMME DIRECTOR

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