

**IMPERIAL**

**2025-26 Module  
Selection Guide**

# Advanced and Intermediate Streams

Exchange students studying in the Department of Mechanical Engineering must choose to take either the **Advanced Stream** (ME3/4 modules) or the **Intermediate Stream** (ME2 modules). You cannot mix modules between the two streams.

## Advanced Stream

- Choose from 3<sup>rd</sup> and 4<sup>th</sup> year modules
- Choose engineering modules from outside the Department of Mechanical Engineering via the Interdepartmental Exchange (IDX)
- Choose **up to two** non-engineering modules

## Intermediate Stream

- Choose from 2<sup>nd</sup> year modules
- Assigned to an ME2 tutorial group
- Cannot choose modules via the Interdepartmental Exchange (IDX)
- Choose **up to one** non-engineering module

Students on both streams can take up to 60 ECTS (or 62.5 ECTS with an Imperial Horizons language module.)

# Advanced Stream

# Advanced Stream

Students taking the **Advanced Stream** can choose from the following Mechanical Engineering modules.

Modules worth 5 ECTS	
Machine Dynamics and Vibrations	Introduction to Nuclear Energy <sup>†</sup>
Fracture Mechanics	Fluid Mechanics 3
Manufacturing Technology and Management*	Structure, Properties and Applications of Polymers
Embedded C for Microcontrollers* <sup>†</sup>	Finite Element Analysis and Applications
Thermodynamics 3	Stress Analysis 3
Mathematics <sup>†</sup>	Mechatronics
Statistics	Tribology

**Design, Make & Test Project: 20 ECTS**

Modules worth 5 ECTS	
Computational Continuum Mechanics	Interfacing and Data Processing
Nuclear Thermal Hydraulics	Design, Art and Creativity* <sup>†</sup>
Combustion Safety and Fire Dynamics <sup>†</sup>	Environmental and Applied Fluid Dynamics
Equality, Diversity and Inclusion in Engineering	Automotive Design with Motorsport*
Computational Fluid Dynamics	Applied Vibration Engineering
Advanced Stress Analysis	Advanced Numerical Methods for Engineers <sup>†</sup>

**Final Year Individual Project: 25 ECTS**

Modules worth 5 ECTS	
Nuclear Reactor Physics	Composite Materials
Advanced Control	Machine Learning
Introduction to Robotics*	Robot Dynamics and Control*
Nuclear Fusion* <sup>†</sup>	Energy Systems
Modules worth 10 ECTS	
Aircraft Engine Technology*	Future Clean Transport Technology*
Metal Processing Technology*	Mechanical Transmissions Technology
Professional Engineering Skills 3	

- If your home institution requires you to take 60 ECTS, we recommend choosing either the Final Year Individual Project, **OR** Design, Make and Test and Professional Engineering Skills 3.
- Modules with a \* are capped due to limited space. If you choose one of these modules, please have an alternative in mind in case your preferred module is full.
- Modules with a <sup>†</sup> run in one term only.

# Advanced Stream

Students taking the **Advanced Stream** can also choose up to two engineering modules offered by other departments via the Interdepartmental Exchange (IDX). All IDX modules are worth 5 ECTS.

## Department of Electrical Engineering

- Optimisation
- Advanced Optimisation
- Sustainable Electrical Systems
- Modelling and Control of Multi-body Mechanical Systems

## Department of Bioengineering

- Human Neuromechanical Learning and Control
- Biomaterials for Bioengineers

## Department of Aeronautics

- Spacecraft Propulsion
- Applied Fluid Dynamics

## Department of Materials

- Nuclear Materials

# Advanced Stream

Students taking the **Advanced Stream** can also choose up to two non-engineering modules offered by Imperial Business School and Imperial Horizons.

## Imperial Business School (BPES)

BPES modules are worth 5 ECTS. Each module has an in-person version taught on campus, and an online version.

### In person

- Business Economics
- Entrepreneurship
- Finance and Financial Management

### Online

- Managerial Economics
- Entrepreneurship Online
- Corporate Finance

## Imperial Horizons

Students taking the **Advanced Stream** can choose from a range of Year 3 and Year 4 language modules (worth 7.5 ECTS), and Humanities and Social Sciences modules (varied ECTS).

The full list of Year 3 and Year 4 modules can be found on the [Imperial Horizons webpages](#).

- Imperial Horizons and BPES modules are often capped or oversubscribed. If you are considering choosing one of these modules, please have an alternative in mind in case your preferred module is full.

# Intermediate Stream

# Intermediate Stream

Students taking the **Intermediate Stream** can choose from the following Mechanical Engineering modules.

Modules worth 5 ECTS	
Heat Transfer	Stress Analysis 2
Mechatronics 2	Materials 2
Thermodynamics 2	Dynamics
Professional Engineering Skills 2	Fluid Mechanics 2

Modules worth 10 ECTS	
Mathematics & Computing 2	Design & Manufacture 2



# Intermediate Stream

Students taking the **Intermediate Stream** can also choose up to one non-engineering module offered by Imperial Business School and Imperial Horizons.

## Imperial Business School (BPES)

BPES modules are worth 5 ECTS. Each module has an in-person version taught on campus, and an online version.

### In person

- Business Economics
- Entrepreneurship
- Finance and Financial Management

### Online

- Managerial Economics
- Entrepreneurship Online
- Corporate Finance

## Imperial Horizons

Students taking the **Intermediate Stream** can choose from a range of Year 2 language modules (worth 7.5 ECTS), and Humanities and Social Sciences modules (varied ECTS).

The full list of Year 2 modules can be found on the [Imperial Horizons webpages](#).

- Imperial Horizons and BPES modules are often capped or oversubscribed. If you are considering choosing one of these modules, please have an alternative in mind in case your preferred module is full.