



# MASTER IN SEMICONDUCTOR TECHNOLOGY

[N/0533/7/0002] 06/30 [MQA/PA18101]

## DURATION OF STUDY

Full-time: Min 1.5 years, Max 3 years  
Part-time: Min 3 years, Max 5 years

## INTAKE

April/ September

## MEDIUM OF INSTRUCTION

English

## ANNUAL FEE

RM 25,000 (Local) RM 30,000\* (International)

\*Fees subject to 6% Sales & Service Tax (SST).

## ABOUT THE PROGRAMME

Semiconductor technology is the core foundation of many pivotal technological revolutions in the 21<sup>st</sup> century, including digitalisation, electric vehicles, virtual reality, and artificial intelligence. The aspirations of Malaysia, China and the South-east Asia region have been to develop a regional hub for semiconductor manufacturing excellence. In line with Malaysia's New Industrial Master Plan (NIMP) 2030, this programme aspires to play a part in the education and training of semiconductor industrial professionals that possess in-depth theoretical knowledge and practical skills in semiconductor physics and technologies, developing well-rounded, highly-flexible graduates who are ready to work in a multicultural and multinational semiconductor manufacturing and research environment, and cultivating graduates who would assume leadership in the semiconductor industry and pursue innovation and entrepreneurship in the local and global arena.

This programme is ideal for fresh graduates in physics/engineering and early-career professionals. It offers a strategic platform for upskilling and career growth, leading to a seamless transition from academia to industry, equipping students with the specialised expertise needed to thrive in this rapidly evolving field.

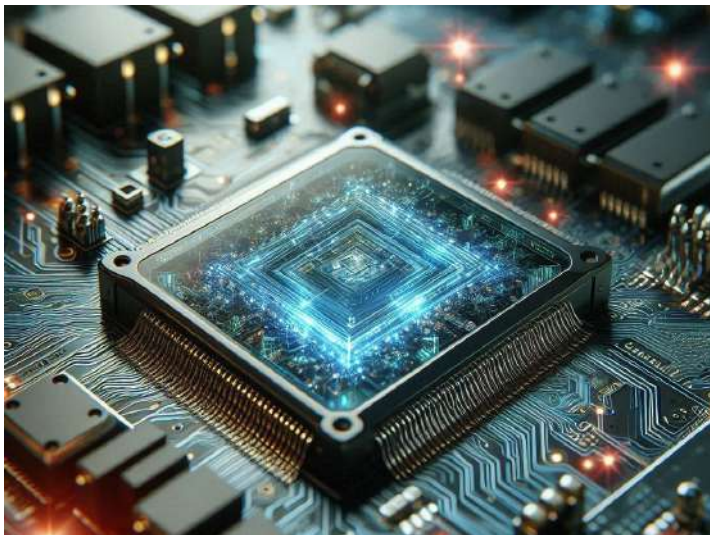
## PROGRAMME HIGHLIGHTS

- Strong foundation in fundamental science of semiconductors
- Introduction to semiconductor manufacturing practices
- Semiconductor applications in emerging technologies
- Exposure to leading semiconductor industries in Malaysia and abroad

## CAREER OPPORTUNITIES

Graduates could pursue careers in the following positions:

- Semiconductor Technologist
- Material Scientist
- Electronics Design and Test Engineer
- Quality Control & Production Engineer
- Instrumentation Technologist
- Test / Failure Analysis Engineer
- Process Engineer
- Researcher / Scientist
- R&D Executive Science Officer
- Industrial Consultant
- Lecture, Teacher, Researcher





## MASTER IN SEMICONDUCTOR TECHNOLOGY

### ENTRY REQUIREMENTS

*\*For other equivalent qualifications, please consult our programme counsellor*

- I. A Bachelor's Degree (Level 6, MQF) in Physics, Engineering or related fields with a minimum CGPA of 2.50 or its equivalent, as accepted by the Higher Education Provider (HEP) Senate; OR
- II. A Bachelor's Degree (Level 6, MQF) in Physics, Engineering or related fields or equivalent with a minimum CGPA of 2.00 and not meeting a CGPA of 2.50, can be accepted subject to rigorous internal assessment; OR
- III. Any other qualifications that are equivalent and recognised by Malaysian Government, subject to internal assessment.

Note: Candidates without a qualification in the related fields must undergo appropriate prerequisite courses determined by the HEP and meet the minimum CGPA based on (I) to (II).

#### IV. English proficiency for international students:

IELTS 5.0 or MUET Band 3.5 or its equivalent.

Note: international students originating from countries that use English as their official language, or possesses academic qualifications from institutions that use English as the medium of instruction entirely, are exempted from this requirement.

### MAIN COURSES

#### Core Courses

- Introduction to the Semiconductor Manufacturing Industry
- Semiconductor Physics and Advance Devices
- Semiconductor Materials Science and Process Chemistry
- Integrated Circuit Process and Control
- Integrated Circuit Reliability and Failure Analysis
- Research Methodology

#### Project Courses

- Research Project I
- Research Project II

#### Elective Courses

- Surface Science and Diagnostics Technology
- Semiconductor Packaging Technology
- Semiconductor Memories and Systems

#### Additional Requirement\*

- Chinese 1
- Selected Topics on China

\*No additional tuition fees imposed.

Note:

- Students who obtained a Bachelor's or Master's degree in China can be exempted from Selected Topic on China.
- Students with a credit for Chinese course in previous result slips (UPSR/SPM/O-Level/UEC/A-Level/Foundation/Matriculation/Diploma/HSK etc.) can be exempted from Chinese 1.

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The information in this brochure is correct at the time of publication. Xiamen University Malaysia (XMUM) reserves the right to change the information in line with updates from time to time. Please check the website ([www.xmu.edu.my](http://www.xmu.edu.my)) for latest information.

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July 2025