

Admission Number

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Doctor of Philosophy Programme in Materials Science and Engineering (International Programme)

หลักสูตร ปรัชญาดุษฎีบัณฑิต

สาขาวิชา วิทยาศาสตร์และวิศวกรรมวัสดุ (หลักสูตรนานาชาติ)

Faculty of Science

คณะวิทยาศาสตร์

Expected number of students to be accepted all year round : 16 Students

Admission Requirements

A candidate must:

Plan 1

1. Students must hold a Bachelor or Master degree in Science, Engineering, or related field;
2. Receive a cumulative GPA of at least 3.50;
3. Student should have experience in scientific research and participate in the MOU project between Mahidol University and origin affiliation
4. Students who are studying in Master's Program in Materials Science and Engineering can request the change of status to doctoral degree, provided that they have already complete the first year in the program at the Master's degree level with GPA not less than 3.00. This request must be formally submitted and approved by Master's Program Committee and Doctoral Program Committee as with as the Dean of the Faculty of Graduate Studies.
5. Submit a certificate of English proficiency with minimum admission score:
 - IELTS - at least 3 or
 - TOEFL INTERNET BASED - at least 32 or
 - TOEFL ITP (test arranged by Faculty of Graduate Study, Mahidol University) - at least 400

Important Notes:

- English proficiency score must be taken within 2 years up to the admission date.
 - Application without submitting a valid English certificate will NOT be considered.
 - MU English Competence Standards: www.grad.mahidol.ac.th
 - MU English proficiency tests, please contact the Language Center, Faculty of Graduate Studies. Tel. 0-2441-4125 ext. 221-222
6. Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

Plan 2

1. Students must hold a Bachelor degree in Science, Engineering, or related field with a grade point average of at least 3.50 or
2. Hold a Master degree in Materials Science and Engineering , Science, Engineering, or related field with a grade point average of at least 3.50 ;
3. Submit a certificate of English proficiency with minimum admission score:
 - IELTS - at least 3 or
 - TOEFL INTERNET BASED - at least 32 or

- TOEFL ITP (test arranged by Faculty of Graduate Study, Mahidol University) - at least 400

Important Notes:

- English proficiency score must be taken within 2 years up to the admission date.
 - Application without submitting a valid English certificate will NOT be considered.
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4. Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

Written Examination

There is NO written examination for this program. Applicants must check their eligibility for interview upon the announcing date of the interview list which is scheduled for each admission round.

Curriculum Structure

	Credit
Plan 1	
For student with Bachelor Degree	
Dissertation	72
For student with Master Degree	
Dissertation	48
Plan 2	
For student with Bachelor Degree	
Required Courses	13
Elective Courses not less than	12
Dissertation	48
For transfer student from Master of Science Program in Materials Science and Engineering	
Required Courses	10
Elective Courses not less than	3
Dissertation	36
For student with Master Degree	
Required Courses	13
Elective Courses not less than	12
Dissertation	36

			Credit
Required courses			
For student with Bachelor Degree and student with Master Degree			
SCID 551	Materials Characterization		3(1-4-4)
SCID 556	Ceramic Technology		3(3-0-6)
SCID 557	Physical Metallurgy Principle		3(3-0-6)
SCID 558	Principle of Polymer Science and Technology		3(3-0-6)
SCID 660	Seminar Ph.D.		1(1-0-2)
For transfer student from Master of Science Program in Materials Science and Engineering			
SCID 556	Ceramic Technology		3(3-0-6)
SCID 557	Physical Metallurgy Principle		3(3-0-6)
SCID 558	Principle of Polymer Science and Technology		3(3-0-6)
SCID 660	Seminar Ph.D.		1(1-0-2)
Elective courses			
For student with Bachelor Degree and student with Master Degree			
For transfer student from Master of Science Program in Materials Science and Engineering			
SCID 554	Principle of Nanotechnology		3(3-0-6)
SCID 651	Special Topic in Materials Science and Engineering I		3(3-0-6)
SCID 652	Special Topic in Materials Science and Engineering II		3(3-0-6)
SCID 560	Materials Structure and Bonding		3(3-0-6)
SCPY 511	Atomic and Molecular Physics		3(3-0-6)
SCPY 515	Electrical Materials		3(3-0-6)
SCPY 638	Molecular Quantum Mechanics		3(3-0-6)
SCPY 642	Diffraction Technique		3(3-0-6)
SCCH 523	Polymer Chemistry		3(3-0-6)
SCCH 524	Polymer Characterization		1(1-0-2)
SCCH 527	Polymer Colloids		3(3-0-6)
SCCH 543	Polymer Physics		3(3-0-6)
SCCH 550	Rubber Science and Technology		3(3-0-6)
SCCH 632	Advanced Polymer Chemistry		3(3-0-6)
EGBE 604	Biosensors		3(3-0-6)
EGBE 607	Material and Mechanics in Medicine		3(3-0-6)

Dissertation

Plan 1

Plan 1.1 For student with Master Degree

SCID 898 Dissertation 48(0-144-0)

Plan 1.2 For student with Bachelor Degree

SCID 899 Dissertation 72(0-216-0)

Plan 2

Plan 2.1 For student with Master Degree

SCID 699 Dissertation 36(0-108-0)

Plan 2.2 For student with Bachelor Degree

SCID 799 Dissertation 48(0-144-0)

*** These may change in cases where there are suggestions for the improvement of the curriculum**

Additional advantages of the programme

The program is research oriented program with the special emphasis on surface science, advanced materials, composites engineering materials, nano-materials, biological materials, corrosion and molecular engineering.

Details of Scholarships

1. Scholarships for International Graduate Students.
2. Scholarship of the 60th Year Supreme Reign of His Majesty King Bhumibol Adulyadej.
3. Institutional Strengthening Program.

Application Process

Application is only available via online application at www.grad.mahidol.ac.th.

Required Documents

Applicants must upload all documents via online admission system. All documents must be in PDF format (maximum size 2 MB). Photograph must be in JPEG format.

- Recent photographs (1x1 inch in size)
- A copy of an applicant's degree certificate or a letter of graduation certification (for an applicant with a degree completion)
- A letter certifying that an applicant is currently in the final year prior to graduation (for an applicant seeking for a degree)
- A detailed transcript of a degree (for an applicant with a degree completion)
- A grade report with course names and grades received from the first to the current semester prior to graduation
- A copy of identification card
- A copy of house registration certification
- A copy of Certificate of English proficiency : IELTS / TOEFL INTERNET BASED / TOEFL ITP
- A copy of proof of payment.

Job option after graduation

1. Material Science and Engineering researcher
2. Business developer in material science and Engineering
3. Specialist and consultant in material science and Engineering and related field.

**Further information may be obtained from the Director of Graduate Studies,
Materials Science and Engineering.**

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Program Coordinator

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Note 1. For more education information : www.grad.mahidol.ac.th

**For more information please contact The Student Admission Section.
Tel . 0 2441 4125 ext. 208-210 , 0 2441 9129E-mail : gradthai@mahidol.ac.th**