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

Faculty of Science

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. Have a TOEFL ITP score of at least 500, TOEFL Internet-based score of 61 or IELTS score of 5 .

Exceptions from the above conditions may be granted by the Programme Committee and the Dean of Faculty of Graduate Studies;

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. Have a TOEFL ITP score of at least 500, TOEFL Internet-based score of 61 or IELTS score of 5 .

Exceptions from the above conditions may be granted by the Programme Committee and the Dean of Faculty of Graduate Studies;

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

Prepare the following required documents to submit via online admission system or post:

1. Completed an Online Application at www.grad.mahidol.ac.th which comprised with
 - Form A** : Application Form
 - Form B** : Background and Proposed Field of Study
 - Form C** : Recommendation Forms (directly submitted by at least 2 referees)
2. Two copies of Degree Certificate (with officially certified English translation)

3. Two copies of Academic Transcript (with officially certified English translation)
4. Two copies of Recent Photos (Passport size)
5. Two copies of Passport
6. Two copies of English certificate (TOEFL/ IELTS/ MU-Grad Test)

(For Doctoral Program)

- TOEFL ITP score of at least 500, TOEFL Internet-based score of 61, or IELTS score of 5

(For Master's Program)

- TOEFL ITP score of at least 480, TOEFL Internet-based score of 54, IELTS score of 5 or MU GRAD TEST score of 60.

Notes

- Only accept TOEFL ITP score from examination center arranged by Faculty of Graduate Studies, Mahidol University.
- TOEFL ITP taken from other domestic and overseas institutes are invalid.
- The test date must be within previous 2 years before application date
- Applicant who obtained a valid English score must submit an **official score certificate** along with your application. Otherwise, your English score will not be considered.
- Detail of English Competency Standard for Admission:
<http://www.grad.mahidol.ac.th/en/current-students/language-center.php>

7. Two copies of Curriculum Vitae
8. Two copies of Statement of Purposes and Career Goals
9. Two copies of Current bank statement / Scholarship letter (if any)
10. Two copies of Concept paper / research proposal (recommended for all applicants)
11. Two copies of additional documents may be requested by each program (such as letter of work experience / professional license/ related certificates and awards)

Submitting documents via online admission system.

- All documents must be in pdf format (maximum size 2 MB)
- Recent photograph must be in jpeg format only (maximum size 2 MB)

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.

1. Asst. Prof. Teerakiat Kerdcharoen (E-mail : tomesak.sri@mahidol.ac.th)

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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 : gradinter@mahidol.ac.th**