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Doctor of Philosophy Programme in Biochemistry (International Programme)

Faculty of Science

Department of Biochemistry

### Admission Requirements

**A candidate must:**

1. Already obtain a bachelor's degree or currently enroll in the final year of a bachelor's program in any of the following areas: science (all areas), pharmacy, dentistry, veterinary science, or medicine with a minimum GPA of 3.50 or equivalent. Or
2. Already obtain a master's degree or currently enroll in the final year of a master's degree program in any of the following areas: chemistry, life sciences, medical sciences, health sciences, or other related field with a minimum GPA of 3.50 or equivalent.
3. have a TOEFL ITP score of at least 500, TOEFL Internet-based score of 61 or IELTS score of 5 .

Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

### Curriculum Structure

	Credit
<b>Plan 2</b>	
<b>For students with Bachelor's degree</b>	
Required courses	19
Elective courses not less than	5
Dissertation	48

	Credit
<b>Plan 2</b>	
<b>For students with Master's degree</b>	
Required courses	6
Elective courses not less than	6
Dissertation	36

	<b>Credit</b>
<b>Required courses</b>	
<b>For students with Bachelor's degree</b>	
SCBC 609 Structure and Mechanism of Enzymes	2(2-0-4)
SCBC 610 Modern Metabolism	2(2-0-4)
SCBC 611 Current Protocols in Biomolecular Research	1(1-0-2)
SCBC 613 Advanced Skills in Biochemical Research	3(2-2-5)
SCBC 614 Advanced Biochemistry Seminar I	1(1-0-2)
SCBC 615 Advanced Biochemistry Seminar II	1(1-0-2)
SCBC 616 Advanced Biochemistry Seminar III	1(1-0-2)
SCID 502 Cell Science	2(2-0-4)
SCID 506 Concepts of Molecular Bioscience	2(2-0-4)
SCID 508 Biomolecular and Spectroscopy Techniques	1(0-2-1)
SCID 509 Separation Techniques	1(0-2-1)
SCID 511 Gene Technology	1(0-2-1)
SCID 518 Generic Skills in Science Research	1(0-2-1)
<b>For students with Master's degree</b>	
SCBC 613 Advanced Skills in Biochemical Research	3(2-2-5)
SCBC 614 Advanced Biochemistry Seminar I	1(1-0-2)
SCBC 615 Advanced Biochemistry Seminar II	1(1-0-2)
SCBC 616 Advanced Biochemistry Seminar III	1(1-0-2)
<b>Elective Courses</b>	
SCBC 603 Advanced Biochemistry Laboratory	2(0-4-2)
SCBC 607 Current Topics in Biochemistry	3(3-0-6)
SCBC 612 Functional Genetics and Genomics	2(2-0-4)
SCID 500 Cell and Molecular Biology	3(3-0-6)
SCID 507 Microscopic Technique	1(0-2-1)
SCID 510 Immunological methods	1(0-2-1)
SCID 512 Receptor Binding and Enzyme Kinetic Assays	1(0-2-1)
SCBT 602 Gene Regulation	3(3-0-6)
<b>Dissertation</b>	
SCBC 699 Research	36/48(0-144/192-0)
<b>* These may change in cases where there are suggestions for the improvement of the curriculum</b>	

## Additional advantages of the programme

Our department has long been recognized as having a leading programme in Biochemistry and Molecular Biology and is the first department in Thailand to offer graduate degrees in Biochemistry. Based on Thai university ranking for the year 2005 by Thai Commission on Higher Education (CHE), **the department has highest ranked-graduate programme of Biochemistry in the country.** Many of our faculty members have been honored with international, national, and university awards. Research activities are always rigorously pursued and are published in international journals every year. Our alumni are currently key players in various Thai scientific communities and industries.

## Details of Scholarships

A variety of scholarships awarded on a competitive basis is available each year for graduate students including:

1. Scholarship of the 60<sup>th</sup> Year Supreme Reign of His Majesty King Bhumibol Adulyadej.
2. Institutional Strengthening scholarships from the Faculty of Science, which include waiver of tuition fees plus monthly allowance in the first year.
3. Royal Golden Jubilee scholarships from Thailand Research Fund.
4. Teaching assistantships to all students to help supervising undergraduate students in the health sciences.
5. Department scholarship for all first-year students who have good academic performances and who do not have any scholarship that covers tuition fees.

## Application Process

Application is only available via online application at [www.grad.mahidol.ac.th](http://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](http://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**

- Scientist, researchers in university or research institute
- Academic staffs in university
- Expert, researcher, analyst in private sectors

**Further information may be obtained from the Director of Graduate Studies, Biochemistry:**

**1. Asst. Prof. Kittisak Yokthongwattana (E-mail : [kittisak.yok@mahidol.ac.th](mailto:kittisak.yok@mahidol.ac.th))**

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Tel. : 0 2201 5462 Fax. : 0 2354 7174

**Program Coordinator**

**Miss Yuvadee Mongkolrop (E-mail : [yuvadee.mon@mahidol.ac.th](mailto:yuvadee.mon@mahidol.ac.th))**

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Tel. : 0 2201 5600 Fax. : 0 2354 7174

- Notes**
1. The programme of Biochemistry requires students study the pre - requisite course:  
SCID 500 Cell and Molecular Biology                    3                    Credits
  2. Student with B.Sc. GPA  $\geq$  3.5 can take only oral exam. In that case, he/she needs to apply through the Department of Biochemistry. Please contact Dr. Tuangporn Suthiphongchai for more information.
  3. For more education information :  
<http://www.grad.mahidol.ac.th> or <http://www.sc.mahidol.ac.th/scbc>

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