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**Master of Science Programme in Biochemistry (International Programme)**

หลักสูตร วิทยาศาสตร์มหาบัณฑิต

สาขาวิชา ชีวเคมี (หลักสูตรนานาชาติ) (ภาคปกติ)

Faculty of Science

Department of Biochemistry

คณะวิทยาศาสตร์

ภาควิชา ชีวเคมี

Expected number of students to be accepted all year round : 20 Students

**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
2. have a minimum grade point average of at least 2.50 or equivalent
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 or
  - MU GRAD TEST(Computer based) - at least 36

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](http://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
4. Exemption from the above conditions may be granted by the Programme Committee under exceptional circumstances.

**Written Examination (Applicants must attend the examination date accurately to your admission round)**

Subjects for examination	Time (Morning session)	
1. Biology 2. Biochemistry 3. Chemistry	9.00 - 12.00 a.m.	
<b>Examination Place</b> Mahidol University , Salaya , Nakhonpathom more details : <a href="http://www.grad.mahidol.ac.th">www.grad.mahidol.ac.th</a>		

## Curriculum Structure

	<b>Credit</b>
Required Courses	15
Elective Courses not less than	9
Thesis	12

	<b>Credit</b>
<b>Required Courses</b>	
SCBC 604 Biochemistry Seminar I	1(1-0-2)
SCBC 606 Biochemistry Seminar II	1(1-0-2)
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)
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(1-0-2)
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>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)
<b>Thesis</b>	
SCBC 698 Thesis	12(0-48-0)

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

### **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**

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.
3. Teaching assistantships to all students to help supervising undergraduate students in the health sciences.
4. 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**

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 / MU GRAD TEST(Computer based)
- A copy of proof of payment.

### **Job option after graduation**

- Scientist, researchers in university or research institute or under any related research project
- A job in private sectors including R&D, production line, Q/C, sales, product consultant, drug and pharmaceutical industries, cosmetic industries, etc.
- Instructor in schools or university

### **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))**

Room B 323, B Building, Floor 3, Department of Biochemistry, Faculty of Science.

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))**

Room Pr 306, Pr Building, Floor 3, Department of Biochemistry, Faculty of Science.

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 : [gradthai@mahidol.ac.th](mailto:gradthai@mahidol.ac.th)**