

**Doctor of Philosophy Programme in Molecular Genetics and Genetic Engineering  
(International Programme)**

**Institute of Molecular Biosciences**

**Admission Requirements**

A candidate must:

**Plan A**

1. Hold a Master degree in Molecular Genetics and Genetic Engineering , Biochemistry, Microbiology, Biotechnology, or equivalent that are approved by the Office of the Higher Education Commission (OHEC) Educational institutions with a GPA no less than 3.50 and
2. Be the first author on a research publication in an international journal that has a peer review process or have at least two-year experience in molecular biology research or research in related field.
3. Have a TOEFL ITP score of at least 500, TOEFL Internet-based score of 61 or IELTS score of 5 . Those who do not have any of the test score specified above will have to take the English Proficiency Examination of the Faculty of Graduate Studies on the specified examination day.

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

**Plan B**

1. Hold a Bachelor's degree in Chemistry, Biochemistry, Biology, Microbiology, Biotechnology, Genetics, Medical Technology, Pharmacy, Veterinary, Medicine or equivalent that are approved by the Office of the Higher Education Commission (OHEC) Educational institutions with a GPA no less than 3.50 or
2. Hold a Master degree in Molecular Genetics and Genetic Engineering , Biochemistry, Microbiology, Biotechnology, or equivalent that are approved by the Office of the Higher Education Commission (OHEC) Educational institutions with a GPA no less than 3.50
3. Have a TOEFL ITP score of at least 500, TOEFL Internet-based score of 61 or IELTS score of 5 .

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

**Curriculum Structure**

	<b>Credit</b>
<b>Plan A</b>	
<b>For students with Master's degree</b>	
Dissertation	48
<b>Plan B</b>	
<b>For students with Master's degree</b>	
Required Courses	8
Elective Courses no less than	4
Dissertation	36

**For students with Bachelor's degree**

Required Courses	21
Elective Courses no less than	5
Dissertation	48

	<b>Credit</b>
<b>Required Courses</b>	
<b>For students with Bachelor's degree</b>	
MBMG 501 Genetic Engineering	3(3-0-6)
MBMG 502 Molecular Genetics	3(3-0-6)
MBMG 511 Techniques in Molecular Genetics and Genetic Engineering	3(0-9-3)
MBMG 503 Advanced Molecular Biology Techniques	2(2-0-4)
MBMG 504 Advanced Research Skill in Molecular Biology	2(0-6-2)
MBMG 505 Advanced Seminar in Molecular Genetics and Genetic Engineering I	1(1-0-2)
MBMG 506 Advanced Seminar in Molecular Genetics and Genetic Engineering II	1(1-0-2)
MBMG 614 Analysis of Research Publications for Molecular Bioscience	2(2-0-4)
MBMG 602 Computer Applications in Molecular Biology	2(1-2-3)
MBMG 603 Instrumentation in Molecular Biology	2(2-0-4)
<b>For students with Master's degree</b>	
MBMG 503 Advanced Molecular Biology Techniques	2(2-0-4)
MBMG 504 Advanced Research Skill in Molecular Biology	2(0-6-0)
MBMG 505 Advanced Seminar in Molecular Genetics and Genetic Engineering I	1(1-0-2)
MBMG 506 Advanced Seminar in Molecular Genetics and Genetic Engineering II	1(1-0-2)
MBMG 614 Analysis of Research Publications for Molecular Bioscience	2(2-0-4)
<b>Elective Courses</b>	
MBMG 601 Current Topics in Molecular Biology	1(1-0-2)
MBMG 606 Protein Structures	2(2-0-4)
SCID 500 Cell and Molecular Biology	3(3-0-6)
SCID 506 Concept of Molecular Biosciences	2(2-0-4)
MBMG 507 Applied Molecular Genetics	2(2-0-4)
GRID 603 Biostatistics	3(3-0-6)
<b>Dissertation</b>	

**Plan A****For students with Master's degree**

MBMG 898 Dissertation 48(0-144-0)

**Plan B****For students with Master's degree**

MBMG 699 Dissertation 36(0-108-0)

**For students with Bachelor's degree**

MBMG 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**

Our programme is one of the leading programmes in Molecular Genetics and Genetic Engineering in Thailand. The programme provides research opportunities in several areas of current interest, and is among the most productive programme in terms of research output. We also have efficient evaluation process to ensure minimum period of study in our programme.

**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**

- Researcher with expertise in Molecular Genetics and Genetic Engineering.
- Lecturer in a graduate program.

### **Further information may be obtained from the Director of Graduate Studies Molecular Genetics and Genetic Engineering :**

1. **Assoc. Prof. Dr. Panadda Boonserm (E-mail : panadda.boo@mahidol.ac.th)**  
Institute of Molecular Biosciences Building, floor 4,  
Institute of Molecular Biosciences, Mahidol University, Salaya, Nakhonpathom.  
Tel: 0 2441 9003-7 Ext. 1466 Fax: 0 2441 9906
2. **Assoc. Prof. Dr. Apinunt Udomkit (E-mail : apinunt.udo@mahidol.ac.th)**  
Institute of Molecular Biosciences Building, floor 2,  
Institute of Molecular Biosciences, Mahidol University, Salaya, Nakhonpathom.  
Tel: 0 2441 9003-7 Ext. 1236 Fax: 0 2441 9906

### **Program Coordinator**

**Mrs. Arpa Eamkum (E-mail : arpa.eam@mahidol.ac.th)**  
Institute of Molecular Biosciences Building, - floor 3,  
Institute of Molecular Biosciences, Mahidol University, Salaya, Nakhonpathom.  
Tel: 0 2441 9003-7 Ext. 1327 Fax: 0 2441 9906

- Notes :**
1. The programme of Molecular Genetics and Genetic Engineering requires students study the pre - requisite courses:
    - SCID 500 Cell and Molecular Biology 3 Credits  
(Only for Students Holding Bachelor's of Science (B.Sc.) Degree.)
    - SCID 506 Concept of Molecular Bioscience 3 Credits
  2. For more education information : [www.grad.mahidol.ac.th](http://www.grad.mahidol.ac.th)

**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**