Admission Number | 7 | 2 | 0 | 3 | D | G | 0 | 0 |

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

หลักสูตร ปรัชญาดุษฎีบัณฑิต **สาขาวิชา พันธุศาสตร์ระดับโมเลกุลและพันธุวิศวกรรมศาสตร์ (หลักสูตรนานาชาติ)(ภาคปกติ)**

Institute of Molecular Biosciences

สถาบันชีววิทยาศาสตร์โมเลกุล

Expected number of students to be accepted year round : 13 Students

(Plan A : 3 Students, Plan B : 10 Students)

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 score of at least 500, TOEFL computer-based score of 173, TOEFL Internet-based score of 61, or IELTS score of 5.
   Those who do not have any of the test scores 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 score of at least 500, TOEFL computer-based score of 173, TOEFL Internet-based score of 61, or IELTS score of 5.
   Those who do not have any of the test scores 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.

Curriculum Structure

	Credit
Plan A	
For students with Master's degree	
Dissertation	48
Plan B	
For students with Master's degree	
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

	Credit
Required Courses	
For students with Bachelor's degree	
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)
For students with Master's degree	
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)

Elective Courses

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)

Dissertation
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.

Required Documents

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

- Two (2) 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) 2 copies
- A letter certifying that an applicant is currently in the last semester prior to graduation (for an applicant seeking for a degree) 2 copies
- A detailed transcript of a degree (for an applicant with a degree completion) 2 copies
- A grade report with course names and grades received from the first to the current semester prior to graduation 2 copies
- A copy of identification card 2 copies
- A copy of house registration certification 2 copies
- A copy of proof of payment.

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. **Asst. 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. 1449 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

Ms. Pattama Nongaen (E-mail : Pattama.non@ 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**

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