Admission Number 2612D G 00

Doctor of Philosophy Programme in Pharmaceutical Chemistry and Phytochemistry
(International programme)
Faculty of Pharmacy

Admission Requirements

A candidate must:

1. Hold a degree or be studying in the final year of Bachelor's or Master degree in Health Science or other related fields such as Chemistry, Microbiology, Biology and Biotechnology.
2. Candidate with Bachelor's Degree must obtain cumulative GPA in the Honor level or equivalent. Candidate with Master's Degree must obtain cumulative GPA of at least 3.50.
3. Meet the admission requirements of the Faculty of Graduate Studies;
4. Has to submit an abstract of 1-3 pages concerning the performed research or the proposed research topic 2 days before the interview (e-mail: pysks@mahidol.ac.th).
   The interview will start with a 40 minute slide or powerpoint presentation by an applicant.
5. 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 Doctoral Programme Committee and the Dean of the Faculty of Graduate Studies.

Curriculum Structure

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<th>For students with Bachelor's degree</th>
<th>Credit</th>
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<td>Required Courses</td>
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<td>Elective Courses no less than</td>
<td>12</td>
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<td>Thesis</td>
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<th>For students with Master's degree</th>
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<td>Required Courses</td>
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<td>Elective Courses no less than</td>
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<td>Thesis</td>
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<table>
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<th>Required Courses</th>
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<tr>
<td>PYPC 661 Advanced Pharmaceutical Chemistry</td>
<td>4(3-3-7)</td>
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<td>PYPG 655 Chemistry of Natural Products</td>
<td>3(3-0-6)</td>
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<tr>
<td>PYPG 656 Structure Elucidation</td>
<td>3(3-0-6)</td>
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<tr>
<td>PYPP 600 Seminar in Pharmaceutical Chemistry and Phytochemistry I</td>
<td>1(1-0-2)</td>
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For students with Master's degree
PYPP 601 Seminar in Pharmaceutical Chemistry and Phytochemistry II 1(1-0-2)
PYID 685 Research Methodology in Pharmacy I 2(2-0-4)
GRID 603 Biostatistics 3(3-0-6)

Elective Courses
For students with Bachelor's degree
PYPC 657 Drug Design I 3(2-3-5)
PYPC 658 Drug Design II 3(2-3-5)
PYPC 659 Instrumental Analysis Laboratory 3(1-6-4)
PYPC 660 Organic Medicinal Chemistry 3(2-3-5)
PYPC 663 Radiopharmaceutical Chemistry 3(3-0-6)
PYPG 651 Pharmaceutical Phytochemistry I 3(2-3-5)
PYPG 652 Pharmaceutical Phytochemistry II 3(2-3-5)
PYPG 657 Separation Technique 3(2-3-5)
PYPG 658 Biosynthesis of Natural Products 3(2-3-5)
PYPG 664 Nuclear Magnetic Resonance Spectroscopy 3(3-0-6)
PYPG 665 Phytopharmacy 2(2-0-4)
PYPG 669 Basis of Structure Elucidation 3(3-0-6)
PYPG 670 Development of Medicinal Plants I 3(2-3-5)
PYPG 671 Development of Medicinal Plants II 3(2-3-5)
PYPC 667 Phytochemistry 3(3-0-6)
PYPC 668 Applications of Plant Biotechnology 3(3-0-6)
PYPB 601 Traditional Thai Medicine 3(3-0-6)
PYPB 604 Medical Ethnobotany 3(2-3-5)
PYPB 607 Development of Herbal Medicine 3(2-3-5)
PYPP 602 Special Problems in Pharmaceutical Chemistry and Phytochemistry 2(0-6-2)
PYID 695 Applied Plant Biotechnology in Pharmaceutical Sciences 3(2-3-5)
SCID 500 Cell and Molecular Biology 3(3-0-6)

For students with Master's degree
PYPC 639 Advanced Pharmaceutical analysis I 3(2-3-5)
PYPC 640 Advanced Pharmaceutical Analysis II 3(2-3-5)
PYPC 662 Advanced Organic Pharmaceutical Chemistry 3(2-3-5)
PYPC 650 Reactions in Pharmaceutical Analysis 3(2-3-5)
PYPC 651 Stability of Pharmaceuticals 3(2-3-5)
PYPC 652 Chemistry of Heterocyclic Drugs 3(2-3-5)
PYPC 656 Chemometrics in Pharmaceutical Chemistry 3(2-3-5)
Areas of study that a student may select for concentration

1. Isolation and Identification of Active Substances from Medicinal Plants
2. Medicinal Plant Biotechnology
3. Standardization of plant products
4. Quantitative Analysis of Plant Compounds
5. Design, synthesis and testing of new drug including study of relationship between drug formula and drug action.
6. Development of pharmaceutical products from natural materials
8. Development of synthesis method to reduce cost of expensive drugs

Additional advantages of the programme

The programme conducts various fields of research: searching for bioactive compounds from herbs, using computer for drug design and drug synthesis, developing of drug and herb analysis with advance techniques. Moreover, academic findings of our lecturers have been continually published in many international journals.

Details of Scholarships

1. Research Assistantship
2. The Royal Golden Jubilee Ph.D. Program (RGJ)
3. Tuition scholarship
4. Scholarship of the 60th year supreme Reign of His Majesty king Bhumipol Adulyadej.

Proposal / Concept Paper

All candidates must submit Proposal/concept Paper in English (Maximum 3 pages)

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.

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
Students can be a potential researcher and be qualified to professionally work in drug inventing, developing in private and quality control public educational institutions, research institutions, drug and medical supplies companies.

Further information may be obtained from the Director of Graduate Studies, Pharmaceutical Chemistry and Phytochemistry:

1. Assoc. Prof. Weena Jiratchariyakul  (E-mail : weena.jir@mahidol.ac.th)
   Department of Pharmacognosy, Rajaratana Building, Floor 5,
   Department of Pharmacognosy, Faculty of Pharmacy.
   Tel: 0 2644 8677-91 Ext.5530 , 5531 , 5523 Fax: 0 2644 8701

2. Lect. Jutarat Pimthon  (E-mail : jutarat.pim@mahidol.ac.th)
   Department of Pharmaceutical Chemistry, Rajaratana Building, Floor 4,
   Department of Pharmaceutical Chemistry, Faculty of Pharmacy.
   Tel: 0 2644 8677-91 Ext.5402 , 1404 Fax: 0 2644 8695

Program Coordinator
1. Mr. Ithipol Ithiamnuaypan  (E-mail : ithipol.ith@mahidol.ac.th)
   Department of Pharmacognosy, Rajaratana Building, Floor 5,
   Department of Pharmacognosy, Faculty of Pharmacy.
   Tel: 0 2644 8677-91 Ext.5530 , 5531 Fax: 0 2644 8701
1. 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