

Admission Number

2	1	2	2	D	G	0	0
---	---	---	---	---	---	---	---

**Doctor of Philosophy Programme in Mathematics(International Programme)**

**Faculty of Science**

**Department of Mathematics**

**Admission Requirements**

**A candidate must:**

1. Hold a Bachelor’s degree in Mathematics or an equivalent area with at least forty-five (45) credits of mathematics courses and a grade point average of at least 3.25 or;
2. Hold a Master’s degree in any areas with a Bachelor’s degree in mathematics or an equivalent area which includes at least forty-five (45) credits of mathematics courses with a grade point average of at least 3.50
3. For students who are studying in Master of Science Program in Applied Mathematics (International Program), Mahidol University, and want to change student status to a doctoral student have already taken and passed course work at the master’s degree level for no less than 2/3 of the number of credits in required courses and have received a GPA of no less than 3.50 with approvals from the master’s program committee and the doctoral program committee as well as the Dean of the Faculty of Graduate Studies
4. 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**

	<b>Credit</b>
<b>For a student with Bachelor's degree</b>	
<b>Plan 1</b>	
Thesis	72
<b>Plan 2</b>	
<b>Elementary Courses</b>	-
Required Courses	9
Elective Courses no less than	15
Thesis	48
<b>For a student with Master's degree</b>	
<b>Plan 1</b>	
Thesis	48
<b>Plan 2</b>	
<b>Elementary Courses</b>	-
Required Courses	9
Elective Courses no less than	3
Thesis	36

	<b>Credit</b>
<b>Elementary Courses</b>	
SCMA 501 Linear Algebra	3(3-0-6)
SCMA 502 Advanced Calculus	3(3-0-6)
SCMA 503 Differential Equations	3(3-0-6)
SCMA 504 Probability and Statistics	3(3-0-6)
SCMA 505 Computer Programming I	3(3-0-6)
SCMA 506 Complex Variables	3(3-0-6)
SCMA 507 Vector Analysis	3(3-0-6)
SCMA 508 Calculus of Several Variables	3(3-0-6)
SCMA 509 Principle of Partial Differential Equations	3(3-0-6)
SCMA 510 General Topology	3(3-0-6)
<b>Required Courses</b>	
SCMA 612 Analysis II	3(3-0-6)
SCMA 615 Algebra	3(3-0-6)
SCMA 692 Mathematics Seminar I	1(1-0-2)
SCMA 693 Mathematics Seminar II	1(1-0-2)
SCMA 700 Mathematics Seminar III	1(1-0-2)
<b>Elective Courses</b>	
SCID 518 Generic Skills in Science Research	1(1-0-2)
SCMA 602 Applied Analysis II	3(3-0-6)
SCMA 603 Theory of Ordinary Differential Equations	3(3-0-6)
SCMA 604 Algebraic Topology I	3(3-0-6)
SCMA 605 Algebraic Topology II	3(3-0-6)
SCMA 606 Topology	3(3-0-6)
SCMA 607 Functional Analysis	3(3-0-6)
SCMA 608 Modern Algebra	3(3-0-6)
SCMA 609 Current Topics in Mathematics I	3(3-0-6)
SCMA 610 Real Analysis	3(3-0-6)
SCMA 614 Numerical Analysis II	3(3-0-6)
SCMA 617 Computer Methods for Statistical Applications	3(2-2-5)
SCMA 619 System Science	3(3-0-6)
SCMA 620 Complex Analysis	3(3-0-6)
SCMA 625 Partial Differential Equations	3(3-0-6)

SCMA 626 Applied Functional Analysis	3(3-0-6)
SCMA 627 Differentiable Manifolds	3(3-0-6)
SCMA 628 Finite Element Methods	3(3-0-6)
SCMA 629 Current Topics in Computational Mathematics	3(3-0-6)
SCMA 630 Operations Research	3(3-0-6)
SCMA 631 Decision Analysis	3(3-0-6)
SCMA 632 Game Theory	3(3-0-6)
SCMA 633 Stochastic Processes	3(3-0-6)
SCMA 634 Queuing Theory	3(3-0-6)
SCMA 635 Inventory Theory	3(3-0-6)
SCMA 636 Simulation Modeling	3(3-0-6)
SCMA 637 Combinatorial Mathematics	3(3-0-6)
SCMA 638 Graph Theory	3(3-0-6)
SCMA 639 Current Topics in Statistical Mathematics	3(3-0-6)
SCMA 640 Probability Theory	3(3-0-6)
SCMA 641 Multivariate Analysis	3(3-0-6)
SCMA 642 Advanced Experimental Design	3(3-0-6)
SCMA 643 Time Series Analysis	3(3-0-6)
SCMA 644 Linear Models	3(3-0-6)
SCMA 645 Generalized Linear Models	3(3-0-6)
SCMA 646 Numerical Methods I	3(3-0-6)
SCMA 647 Numerical Methods II	3(3-0-6)
SCMA 648 Advanced Numerical Analysis	3(3-0-6)
SCMA 649 Current Topics in Mathematics II	3(3-0-6)
SCMA 651 Classical Mechanics	3(3-0-6)
SCMA 652 Electromagnetic Theory	3(3-0-6)
SCMA 653 Quantum Mechanics	3(3-0-6)
SCMA 658 Advanced Topics in Applied Mathematics I	3(3-0-6)
SCMA 659 Advanced Topics in Applied Mathematics II	3(3-0-6)
SCMA 660 Theoretical Physics I	3(3-0-6)
SCMA 662 Compressible Fluid Dynamics	3(3-0-6)
SCMA 664 Optimization and Control	3(3-0-6)
SCMA 665 Numerical Methods in Partial Differential Equations	3(3-0-6)

SCMA 666 Applications of Complex Analysis	3(3-0-6)
SCMA 667 Applied Partial Differential Equations	3(3-0-6)
SCMA 668 Differential Geometry	3(3-0-6)
SCMA 669 Current Topics in Mathematical Physics I	3(3-0-6)
SCMA 670 Advanced Differential Equations	3(3-0-6)
SCMA 671 Mathematical Physics I	3(3-0-6)
SCMA 673 Dynamical Systems	3(3-0-6)
SCMA 674 Mathematical Models in The Life Sciences	3(3-0-6)
SCMA 675 Statistical Mechanics	3(3-0-6)
SCMA 676 Mathematics for Computing	3(3-0-6)
SCMA 677 Data Mining	3(3-0-6)
SCMA 678 Mathematics for (Natural) Language Processing I	3(3-0-6)
SCMA 679 Mathematics for (Natural) Language Processing II	3(3-0-6)
SCMA 680 Mathematical Methods for Artificial Intelligence	3(3-0-6)
SCMA 681 Special Topics in Applied Mathematics I	3(3-0-6)
SCMA 682 Special Topics in Applied Mathematics II	3(3-0-6)
SCMA 683 Special Topics in Applied Mathematics III	3(3-0-6)
SCMA 684 Dynamic Meteorology I	3(3-0-6)
SCMA 685 Dynamic Meteorology II	3(3-0-6)
SCMA 686 Numerical Weather Prediction	3(3-0-6)
SCMA 687 Advanced Topics in Mathematical Methods for Artificial Intelligence	3(3-0-6)
SCMA 688 Statistical Inference	3(3-0-6)
SCMA 689 Bayesian Statistics	3(3-0-6)
<b>Thesis</b>	
<b>Plan 1</b>	
SCMA 898 Dissertation	48(0-144-0)
SCMA 898 Dissertation	72(0-216-0)
<b>Plan 2</b>	
SCMA 699 Dissertation	36(0-108-0)
SCMA 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 include :

The information has been changed as in the enclosed document

## Details of Scholarships

1. Scholarship of the 60<sup>th</sup> Year Supreme Reign of His Majesty King Bhumibol Adulyadej.
2. Partial support on the tuition and research supplies fee.

## Additional information for applicants

Ph.D. Programme in Mathematics operates on a rolling admission system (all year round).

## 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 options after graduation

- Lecturer
- Researcher
- Government agencies
- Private companies, such as banks, insurance companies, etc.

Further information may be obtained from the Chair of the Ph.D. Programme Committee :  
Mathematics :

1. Asst.Prof. Duangkamon Baowan (E-mail : [duangkamon.bao@mahidol.ac.th](mailto:duangkamon.bao@mahidol.ac.th))

Room M204/6, M Building, Floor 2,

Department of Mathematics, Faculty of Science.

Tel. : 0 2201 5350 Fax. : 0 2201 5343

**Program Coordinator**

Mr. Natthawooth Siangdee (E-mail : [natthawooth.sin@mahidol.ac.th](mailto:natthawooth.sin@mahidol.ac.th))

Room M203/1, M Building, Floor 2,

Department of Mathematics, Faculty of Science.

Tel. : 0 2201 5342 Fax. : 0 2201 5343

**Note** 1. For more education information : [www.grad.mahidol.ac.th](http://www.grad.mahidol.ac.th)

For more information please contact The Student Admissions Section.  
Tel . 0 2441 4125 ext. 208-210, 0 24419129, E-mail : [gradinter@mahidol.ac.th](mailto:gradinter@mahidol.ac.th)