ADMISSION

- For the Regular Ph.D program, the applicant must have a master's degree in Mathematics or any allied fields such as (but not limited to) Engineering, Physics, Statistics, and Computer Science.
- For the Straight Ph.D. program, the applicant must have:
  - Graduated with honors; or
  - Belonged to the top 10% of the BS Mathematics graduating class;
  - Earned a weighted average of at least 2.0 (or equivalent) in all higher Mathematics Courses; and
  - Published a sole/lead-authored article in any WOS/Scopus-indexed journal.

REQUIREMENTS

- Duly accomplished application form (UPB-GP Form No.1) (http://gpo.upb.edu.ph/forms-fees)
- Original Official Transcript of Records, updated with records of most recent enrollment
- Three (3) Reference Report Forms (2 from former professors and 1 from the applicant's immediate supervisor)
- Recent 2" x 2" Photo (3 copies, 1 copy to be pasted on the application form)
- For working applicants: an official permit from his/her employer/supervisor indicating the maximum number of units the student is allowed to enroll
- For married women: PSA Marriage Certificate
- TOEFL exam certification with a score of 500 for the pen and paper test, 173 for the internet-based test, and 61 for the computer-based test (Original, for foreigners from non-English speaking countries)
- Original PSA Birth Certificate (or an equivalent document for foreign applicants)
- Application and Testing fee (250.00 PHP)

Note: Foreign applicants are required to pay an additional 20 USD on top of the application fee.

FACULTY PROFILE

Addawe, Joel M.
Ph.D. Mathematics
University of the Philippines, 2012
Specialization: Mathematical Modelling, Dynamical Systems

Addawe, Rizavel C.
Ph.D. Statistics
University of the Philippines, 2018
Specialization: Statistics, Time-Series Analysis

Alangui, Wilfredo V.
Ph.D. Mathematics Education
University of Auckland, 2010
Specialization: Ethnomathematics, Indigenous Knowledge

Bacani, Jerico B.
Dr. rer. nat. Mathematik
Karl-Franzens-Universitaet Graz, 2013
Specialization: Shape Derivatives, Diophantine Equations

Collera, Juancho A.
Ph.D. Mathematics
Queen's University, 2012
Specialization: Delay Differential Equations, Dynamical Systems

Domogo, Andrei
Ph.D. Mathematics
University of the Philippines, 2022
Specialization: Mathematical Modelling, Dynamical Systems

Gueco, Edna N.
Ph.D. Mathematics
University of the Philippines, 2012
Specialization: Matrix Analysis, Algebraic Systems

Ignacio, Paul Samuel P.
Ph.D. Mathematics
University of Iowa, 2019
Specialization: Algebraic Topology, Data Science

Manongsong, Saraleen Mae M.
Ph.D. Mathematics
University of the Philippines, 2020
Specialization: Robotics, Algebraic Geometry

Mina, Renz Jimwel S.
Ph.D. Mathematics
University of the Philippines, 2023
Specialization: Number Theory, Elliptic Curves

Peralta, Gilbert R.
Dr. rer. nat. Mathematik
Karl-Franzens-Universitaet Graz, 2014
Specialization: Partial Differential Equations, Optimal Control

Macansantos, Priscilla S.
(Professor Emeritus)
Ph.D. Mathematics
University of Delaware, 1996
Specialization: Fixed Point Theory, Differential Equation

FOR SUBMISSIONS

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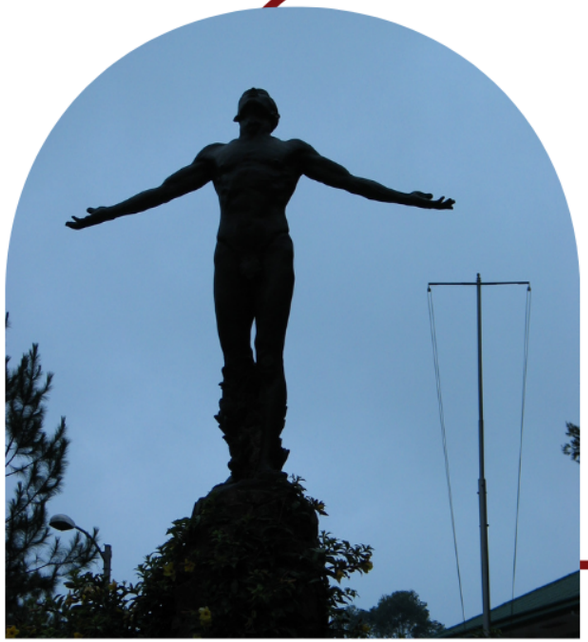

DOCTOR OF PHILOSOPHY IN MATHEMATICS

University of the Philippines Baguio

College of Science
Department of Mathematics and Computer Science

dmcsweb.upb.edu.ph

PROGRAM DESCRIPTION

The Doctor of Philosophy in Mathematics (Ph.D. Math) Program is a graduate program that enables students to: acquire knowledge in pure and applied mathematics; enhance their research skills; and become mathematicians, and future leaders in the academe, industry, and professional organizations. The program is UP Baguio's contribution to the urgent need to increase the critical mass of trained mathematicians in the country.

PROGRAM LEARNING OUTCOMES

At the end of the program, graduates of Ph.D. Mathematics are expected to:

- Explain advanced knowledge in Algebra, Analysis, and a chosen specialized third area, including their applications in, but not limited to, the biological, physical, and social sciences, through verbal and written communication methods.
- Enhance research competence, leading to a high-quality research output that merits publication in a reputable journal.
- Produce a dissertation within a chosen specialized field containing a significant original contribution and adhering to high scholastic rigor and academic standards.
- Become future leaders in the academe, industries, and professional organizations.

CONTACT INFORMATION

Department of Mathematics and Computer Science
University of the Philippines Baguio
Gov. Pack Road, Baguio City 2600
Tel. No. +63 (074) 444-3128
E-mail: dmcs.upbaguio@up.edu.ph

Download application forms at gpo.upb.edu.ph/forms-fees

COURSE STRUCTURE

Regular Ph.D. Math Program

It is a three-year program designed for students who have earned their Master's Degree in Mathematics or any allied fields.

Straight Ph.D. Math Program

It is a four-year program designed for students who have earned their Bachelor's Degree in Mathematics (or in an allied filed) and meet certain qualifications.

Program Requirements	Regular	Straight
Required Courses	9 units	21 units
Elective Courses	18 units	24 units
Graduate Seminar (Math 299)[1]	1 unit	1 unit
Qualifying Examination [2]	-	-
Candidacy Examination[3]	-	-
Dissertation (Math 400)[4]	12 units	12 units
Publication[5]	-	-
TOTAL	**40 units**	**58 units**

[1] Must be taken prior to candidacy examination.
[2] Must be taken after completion of all required courses and 6 units of elective courses and with an average grade of 1.75 or better.
[3] Must be taken after qualifying exam. It consists of thesis proposal defense, and a presentation of a research related to thesis.
[4] Six (6) bound copies and an e-copy of dissertation must be submitted.
[5] Proof of acceptance of publication to a refereed journal is sufficient.

REQUIRED COURSES

Math 221 Abstract Algebra I
Math 222 Linear Algebra
Math 223 Abstract Algebra II*
Math 232 Real Analysis
Math 234 Complex Analysis
Math 237 Functional Analysis*
Math 240 Topological Structures*

**These are the only courses required under the Regular Ph.D. Mathematics program.*

ELECTIVE COURSES

Math 213 Theory of Differential Equations
Math 214 Dynamical Systems
Math 215 Introduction to Mathematical Modeling
Math 216 Applied Partial Differential Equations
Math 217 Integral Equations
Math 218 Introduction to Applied Mathematics
Math 219 Delay Differential Equations
Math 224 Matrix Analysis
Math 225 Number Theory with Applications
Math 235 Applied Complex Variables
Math 236 Numerical Analysis
Math 238 Semigroup Theory and Applications
Math 239 Numerical Partial Differential Equations
Math 241 Algebraic Topology
Math 245 Computational Topology with Applications
Math 250 Modern Geometry
Math 251 Differential Geometry
Math 255 Applied Combinatorics
Math 256 Graph Theory
Math 260 Probability and Applications
Math 280 Linear and Nonlinear Optimization
Math 296 Selected Topics in Applied Analysis
Math 297 Independent Study
Math 298 Special Topics