

**Ateneo de Manila University
School of Science and Engineering
Department of Mathematics**

**DOCTOR OF PHILOSOPHY IN MATHEMATICS
(Effective SY 2011 – 2012)**

I. REQUIREMENTS TO THE PROGRAM

To be admitted into the program the applicant must have completed all the requirements for the M.S. in Mathematics degree. Then s/he must fulfill the following:

- a. Complete a total of twenty seven (27) units of graduate courses in mathematics, [nine (9) units of required courses and eighteen (18) units of electives].
- b. Pass a comprehensive examination, a written exam that covers three areas, two of which must be the areas of algebra and analysis. The third area may be chosen by the student from other fields covered by the courses s/he has taken.
- c. Submit a doctoral dissertation which is considered by the department an original contribution to existing knowledge. Doctoral dissertation will count for twelve (12) units toward the total thirty nine (39) units required.
- d. Proof of submission of a paper containing results of the dissertation to a Science Citation Indexed journal (ISI) or reputable refereed international journal.
- e. Presentation of dissertation results in an international or national conference in mathematics.

II. REQUIRED SUBJECTS (9 units)

Ma 251 Algebraic Structures II
Ma 295A. 2 Seminar in Real Analysis II

Any of the following courses:

Ma 260 Topological Structures
Ma 295C.1 Seminar in Finite Geometry
Ma 295C.4 Seminar in Groups and Design
Ma 295C.8 Seminar in Hyperbolic Geometry
Ma 295C.9 Geometric Crystallography
Ma 295C.10 Seminar in Color Symmetry
Ma 295C.11 Seminar in Tilings and Patterns

III. ELECTIVES (18 units)

IV. COMPREHENSIVE EXAMINATIONS

V. DISSERTATION AND ORAL DEFENSE (12 units)