INSTITUTE OF MATHEMATICS
College of Science
University of the Philippines Diliman

Math 190 Course Syllabus

A. Course Catalogue Description

Course Number	Math 190
Course Title	Introduction to Mathematical Research and Writing
Course Description	Basic principles and best practices of mathematical research and writing
Prerequisite	Junior Standing
Course Credit	2 units
Number of Hours	2 hours/week

B. Course Content

  I. Introduction to mathematical research

    1. Nature of mathematical research

    2. Mathematical resources (e.g.: books, journals)

    3. Scope of an undergraduate thesis

  II. Research areas of the institute (1 hour talks by various faculty members)

    1. Algebra and group theory

    2. Approximation and optimization

    3. Coding theory and cryptography

    4. Combinatorics and graph theory

    5. Differential and noncommutative geometry

    6. Differential equations

    7. Discrete geometry and mathematical crystallography

    8. Harmonic analysis

    9. Linear algebra and matrix analysis

    10. Mathematical finance and actuarial science

    11. Mathematical modelling

    12. Number theory

  III. Writing and presenting a research paper in mathematics

    1. Mathematical language, organization, and use of notation

    2. Introduction to mathematical typesetting software (e.g.: LaTeX)

    3. Writing workshop

    4. Short presentations (talks by students)

For a more detailed syllabus, send an email request to ddapr@math.upd.edu.ph.