



Cebu Normal University  
College of Arts and Sciences  
GRADUATE STUDIES

Course Evaluation

\_\_\_\_\_ Semester, Academic Year \_\_\_\_\_

Name: \_\_\_\_\_  
                     In Print                                      (Family Name)                                      (Given Name)                                      (Middle Name)

**MASTER OF SCIENCE IN MATHEMATICS (THESIS)**

Approved Revised Curriculum per BOR Res. No. 56, s. 2015

I. Description of the Program

The Master of Science in Mathematics program of Cebu Normal University prepares the students for a career in teaching college Mathematics and opportunities to engage in Mathematical Research. The program is designed for students to have two options: (1) MS Math Program (w/ thesis option) and (2) MS Math Program (non-thesis option). The MS Math Program (w/ thesis option) is designed for those students whose career path is leading to mathematical research, while MS Math Program (non-thesis option) is for students who are mainly into teaching career.

II. Program Requirements

The student in the MS Math Program (w/ thesis option) must

1. Complete 18 units Core Math courses and 12 units of Math Electives.
2. Must pass the comprehensive exam which covers 3 areas: Algebra, Analysis, and a third one which may be chosen by the student. The student can take the comprehensive exam only after completing (1).
3. Submit a Master's thesis which is a scholarly contribution to Mathematical knowledge. The Master's thesis must be successfully orally defended before a panel of examiners.

Students who are enrolled in MS Math program (non-thesis option) must complete the above requirements (1) & (2), enroll two additional math electives and present a seminar paper in a math colloquium.

III. Entry Requirements

In addition to the entry requirements of the university and the CNU Graduate School, the following must be met by the applicants for the MS Math program:

1. Mentally and physically fit
2. Must have taken at least Algebraic Structures and Advanced Calculus or its equivalent.
3. The student must pass the bridging courses if the student does not meet entry requirement (2)

IV. Curriculum Outline

<b>BRIDGING COURSES</b>			
• Math 401. Introduction to Real Analysis		3	
• Math 402. Fundamentals of Abstract Mathematics		3	
<b>CORE COURSES</b>	<b>18 units</b>	<b>UNITS</b>	<b>PRE-REQUISITE(S)</b>
• Math 411. Real Analysis I		3	Math 401.
• Math 416. Complex Analysis		3	Math 411.
• Math 421. Abstract Algebra I		3	Math 402.
• Math 422. Abstract Algebra II		3	Math 421.
• Math 423: Linear Algebra		3	
• Math 461. Topology I		3	
<b>MATH ELECTIVES</b>	<b>12 units</b>		
(Any 4 below)			
• Math 412. Real Analysis II		3	
• Math 413. Numerical Analysis I		3	
• Math 414. Numerical Analysis II		3	
• Math 415. Approximation Theory		3	
• Math 417. Complex Analysis II		3	
• Math 418. Measure Theory		3	
• Math 419. Asymptotic Analysis		3	
• Math 424. Linear Algebra II		3	
• Math 425. Matrix Theory		3	

• <b>Math 426.</b> Linear and Non-Linear Programming	3	
• <b>Math 427.</b> Theory of Groups	3	
• <b>Math 428.</b> Theory of Rings	3	
• <b>Math 429.</b> Galois Theory	3	
• <b>Math 430.</b> Statistical Methods	3	
• <b>Math 431.</b> Mathematical Statistics I	3	
• <b>Math 432.</b> Mathematical Statistics II	3	
• <b>Math 433.</b> Stochastic Processes	3	
• <b>Math 434.</b> Probability Theory	3	
• <b>Math 435.</b> Multivariate Analysis	3	
• <b>Math 436.</b> Regression Analysis	3	
• <b>Math 437.</b> Mathematical Modelling	3	
• <b>Math 442.</b> Numerical Linear Algebra	3	
• <b>Math 443.</b> Numerical Optimization	3	
• <b>Math 444.</b> Mathematical Finance	3	
• <b>Math 450.</b> Modern Geometry	3	
• <b>Math 451.</b> Fractal Geometry	3	
• <b>Math 452.</b> Algebraic Geometry	3	
• <b>Math 453.</b> Differential Geometry	3	
• <b>Math 454.</b> Hyperbolic Geometry	3	
• <b>Math 455.</b> Projective Geometry	3	
• <b>Math 456.</b> Geometric Crystallography	3	
• <b>Math 457.</b> Theory of Ordinary Differential Equations	3	
• <b>Math 458.</b> Theory of Partial Differential Equations	3	
• <b>Math 459.</b> Ergodic Theory and Dynamical Systems	3	
• <b>Math 462.</b> Topology II	3	
• <b>Math 463.</b> Algebraic Topology	3	
• <b>Math 470.</b> Combinatorial Mathematics 1	3	
• <b>Math 471.</b> Combinatorial Mathematics 2	3	
• <b>Math 472.</b> Graph Theory	3	
• <b>Math 473.</b> Number Theory	3	
• <b>Math 474.</b> Algebraic Number Theory	3	
• <b>Math 475.</b> Algebraic Graph Theory	3	
• <b>Math 476.</b> Coding Theory	3	
• <b>Math 477.</b> Cryptography	3	
• <b>Math 481.</b> Functional Analysis I	3	
• <b>Math 482.</b> Functional Analysis II	3	
• <b>Math 491.</b> Seminar in Algebra	3	
• <b>Math 492.</b> Seminar in Analysis	3	
• <b>Math 493.</b> Seminar in Applied Mathematics	3	
• <b>Math 494.</b> Seminar in Graph Theory	3	
• <b>Math 495.</b> Seminar in Combinatorial Mathematics	3	
• <b>Math 496.</b> Seminar in Topology	3	
• <b>Math 497.</b> Seminar in Probability Theory and Mathematical Statistics	3	
• <b>Math 498.</b> Seminar in Selected Topics	3	
• <b>Math 499.</b> Independent Study	3	
<b>Comprehensive Examination</b> upon completion of all academic requirements		
<b>Math 500 Master's Thesis</b> after passing the Comprehensive Examination	6	
<b>Summary:</b>  Core Courses ----- <b>18 units</b> Math Electives ----- <b>12 units</b> Master's Thesis ----- <b>6 units</b>		
<b>Total</b>	<b>36 units</b>	