

5-8-2006

Mathematics: Combined BA/MA in Mathematics

The College at Brockport, College Senate

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SUNY BROCKPORT

College Senate
State University of New York College at Brockport
350 New Campus Drive
Brockport, NY 14420-2925
() 395-2586 (Fax) 395-2246

**Resolution # 36
2005-2006
COLLEGE SENATE**

COLLEGE SENATE
SUNY College at Brockport
MAY 24 2006
350 New Campus Drive
Brockport, NY 14420-2925

TO: Dr. John R. Halstead, College President
FROM: The College Senate passed: May 8, 2006
RE: ⇒ I. Formal Resolution (*Act of Determination*)
II. Recommendation (*Urging the Fitness of*)
III. Other, For Your Information (*Notice, Request, Report, etc.*)

SUBJ: **Mathematics: Combined BA/MA in Mathematics #46 05-06 GC**

Signed: [Signature] Date: 5 / 18 / 06
(Dr. Mark Noll, 2003-2006 College Senate President)

Please fill out the bottom portion and return document to the College Senate Office.

TO: The College Senate
FROM: College President

- RE: ⇒ I. Decision and Action Taken on Formal Resolution (circle)
a. Accepted. Resolution Effective Date: 5 / 22 / 06
b. Deferred for discussion with the Faculty Senate on ___/___/___
c. Unacceptable for the reasons contained in the attached explanation
II, III. Response to Recommendation or Other/FYI
a. Received and acknowledged ___/___/___
b. Comment: _____

DISTRIBUTED BY PRESIDENT'S OFFICE TO: President's Cabinet

DISTRIBUTE ALSO TO: Originator, Academic Advisement, Registrar (as appropriate)

Signed: [Signature] Date: _____
(Dr. John R. Halstead, College President, SUNY College at Brockport)

ROUTING NUMBER TO BE ASSIGNED BY SENATE OFFICE

DEADLINE FOR SUBMISSIONS: FEBRUARY 23

Proposals received after the deadline may not be reviewed until next semester.

INSTRUCTIONS:

- Submit proposals individually rather than packets with multiple documents.
- Complete this cover page for each proposal (available online at www.brockport.edu/collegesenate)
- Prepare proposal in Word format using committee guidelines (available online)
- Submit proposal electronically with this cover page to senate@brockport.edu, facprez@brockport.edu
- All updates must be resubmitted to the Senate office with an updated cover page, use routing number
- Questions? Call the Senate office at 395-2586 or the appropriate committee chairperson.

1. PROPOSAL TITLE:

Please be somewhat descriptive, for example, *Graduate Probation/Dismissal Proposal* rather than *Graduate Proposal*.

Combined BS/MA in Mathematics

2. BRIEF DESCRIPTION OF PROPOSAL:

This is a proposal for a five-year combined degree program in Mathematics. Essentially, a student in this program would complete all of the mathematics courses required for an undergraduate degree and the graduate degree and received both a BS in Mathematics and an MA in Mathematics.
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3. SUBMISSION & REVISION DATES: PLEASE DATE ALL UPDATED DOCUMENTS

First Submission	Updated on	Updated on	Updated on
3/2/06			

4. SUBMITTED BY: (contact person)

Name	Department	Phone	Email
Dawn M. Jones	Mathematics	5174	djones@

5. COMMITTEES TO COPY: (Senate office use only)

Standing Committee	Forwarded To	Date
<input type="checkbox"/> Enrollment Planning & Policies	Committee Chairs	3/2/06
<input type="checkbox"/> Faculty & Professional Staff Policies	Executive Committee	4/24/06
<input type="checkbox"/> General Education & Curriculum Policies	Senate Floor	5/8/06
XX Graduate Curriculum & Policies	College President	
<input type="checkbox"/> Student Policies	Other	
xx Undergraduate Curriculum & Policies		

*(ROUTING NUMBER WILL BE A CHRONOLOGICAL NUMBER SEQUENCE FOLLOWED BY COMMITTEE INITIALS)

SUNY COLLEGE AT BROCKPORT
PROGRAM PROPOSAL
COMBINED Mathematics DEGREE PROGRAM:
BS Mathematics / MA Mathematics

1. Proposed Program Title: Mathematics, BS/MA
2. Programs to be combined:
 - a. Mathematics and HEGIS code
 - b. Mathematics and HEGIS code
3. Existing and Proposed Programs (Table including total credits)

Table I. Existing and Proposed Program

Existing Programs	Proposed Program	
Undergraduate	Combined Program	
Required MTH courses (33 credits)	Required MTH courses (33 credits)	
MTH 201, 202, 203 Calculus I, II, and III 9	MTH 201, 202, 203 Calculus I, II, and III	9
MTH 255 Differential Equations 3	MTH 255 Differential Equations	3
MTH 281 Discrete Mathematics I 3	MTH 281 Discrete Mathematics I	3
MTH 346, 446 Prob. and Stats I, II 6	MTH 346, 446 Prob. and Stats I, II	6
MTH 324 Linear Algebra 3	MTH 324 Linear Algebra	3
MTH 425 Modern Algebra 3	MTH 425 Modern Algebra	3
MTH 457 Real Analysis 3	MTH 457 Real Analysis	3
Elective courses (9 credits) *	Elective courses (9 credits) *	
CSC 203 Fundamentals of Comp Sci 4	CSC 203 Fundamentals of Comp Sci	4
Total 43		43
Graduate		
A minimum of 15 credits of mathematics at the 600-level or above.	A minimum of 15 credits of mathematics at the 600-level or above.	
Required MTH Courses (9 credits)	Required MTH Courses (9 credits)	
MTH 621 or 629	MTH 621 or 629	
MTH 651 or 659	MTH 651 or 659	
MTH 641 or 669	MTH 641 or 669	
Elective Courses	Elective Courses	
At least four additional approved graduate mathematics classes (which may include CSC 583)	At least four additional approved graduate mathematics classes (which may include CSC 583)	
Electives at the 500-level or above.**	Electives at the 500-level or above.**	
Total 30	Total	73

* Nine credits in mathematics, by advisement, from course numbered MTH 399 or higher. CSC 483 may be substituted for one of these MTH courses.

** These electives must be approved by the advisor and may be courses in mathematics, computer science, economics, education, or other mathematics related field.

4. Requirements

- a. **Admission:** Before applying to the combined program, students must have met the college admissions criteria and been admitted to an undergraduate program at the college. Student may apply for admission to the combined degree after the successful completion of 54 credits, but no later than the accumulation of 84 credits. This program seeks to provide a fast track for capable students; therefore it is restricted to students with exceptional records. Students must have a 3.25 GPA overall and within the major to be able to enter the program. Entry into the program also requires an application that includes but is not limited to a one-page statement of interest, along with two letters of recommendation. In addition, a student must take and pass both MTH 425 Modern Algebra and MTH 457 Real Analysis with a grade of “B” or better. A student in good standing with fewer than 120 credits who withdraws from school will automatically be readmitted into the program if he or she returns within a year. Other returning students (those who were dropped from the program due to low performance) can re-apply to the program later as new applicants.
- b. **Progression:** Students must have a 3.25 GPA overall and within the major to stay in the program. Students who fail to complete the combined program will have a fallback position, which is to complete the normal BS track. Students will then have the opportunity to apply any graduate credits earned toward the completion of their undergraduate degree (up to 12 credits). Students will receive a BS at the completion of 120 credits (assuming all other undergraduate degree requirements are met) and MA at the end of the combined program. A student in good standing who has completed the BS degree requirements and who withdraws from school or reduces to part-time status will be bound by the 7-year limit to complete the MA segment of the degree program.
- c. **Required Courses:**

Computer Science

CSC 203 Fundamentals of Computer Science

1. Mathematics

MTH 201 Calculus I
MTH 202 Calculus II
MTH 203 Calculus III
MTH 255 Differential Equations
MTH 281 Discrete Mathematics I
MTH 346 Probability and Statistics I
MTH 324 Linear Algebra
MTH 425 Modern Algebra
MTH 446 Probability and Statistics II
MTH 457 Real Analysis
MTH 621 or 629 Algebra
MTH 651 or 659 Analysis
MTH 641 or 669 Statistics or Applied Mathematics

d. **Elective Courses:**

Undergraduate Electives Nine credits in mathematics, by advisement, from course numbered MTH 399 through MTH 499. CSC 483 may be substituted for one of these MTH courses.

Graduate Electives At least four additional approved graduate mathematics classes (which may include CSC 583). These electives must be approved by the advisor and may be courses in mathematics, computer science, economics, education, or other mathematics related field.

- e. **Notes:**
- o Students intending to obtain secondary education certification in mathematics must complete MTH 432 College Geometry.
 - o At least three 400-level MTH courses must be taken at SUNY Brockport, including at least one of the following: MTH 425, 446, or 457.
 - o Students receiving elementary certification may substitute MTH 314 for one of the undergraduate mathematics electives.
- f. **Other requirements:** In addition to the 30 Graduate credits, students must pass a set of comprehensive examinations after completing 24 or more credits as outlined in the Plan of Study. The comprehensive examination will cover material based on the three required graduate courses.
- g. **Advising/ Plan of Study:** The Advisory Committee has the responsibility of planning the candidate's program and submitting a Plan of Study to the Graduate Committee for approval during the candidate's first semester in the program. Upon admission to the program, each candidate for the Master of Arts in Mathematics selects an advisor or is assigned one by the Graduate Committee. The candidate and advisor constitute the Advisory Committee for the candidate. (See the attached sample Plan of Study.)
- h. **Sample Schedule**

Table II: A five-year sample schedule of the proposed combined BS/MA program in Mathematics.

<u>FALL</u>	<u>SPRING</u>
Year I	
MTH 201 Calculus I (3)	MTH 202 Calculus II (3)
General Education Elective (3)	MTH 281 Discrete Math I(3)
General Education Elective (3)	CSC 120 Intro to Computer Sci (3)
General Education Elective (3)	General Education Elective (3)
General Education Elective (3)	General Education Elective (3)
Total credits for the 1 st year (15+15) = 30	
Total credits at the end of the 1 st year = 30	
Year II	
MTH 203 Calculus III (3)	MTH 346 Prob. & Stats I (3)
MTH 324 Linear Algebra (3)	MTH 255 Differential Equations (3)
CSC 203 Fund. of Computer Science I (4)	General Education Elective (3)
General Education Elective (3)	General Education Elective (3)
Undergraduate Elective (3)	General Education Elective (3)
Total credits for the 2 nd year (16+15) = 31	
Total credits at the end of the 2 nd year = 61	
Year III	
MTH 425 Modern Algebra (3)	MTH 457 Real Analysis (3)
MTH 446 Prob. & Stats II (3)	MTH 4XX elective (3)
MTH 4XX elective (3)	MTH 4XX elective (3)
General Education Elective (3)	General Education Elective (3)

Undergraduate Elective (3) Undergraduate Elective (3)

Total credits for the 3rd year (15+15) = 30

Total credits at the end of the 3rd year = 91

Year IV

MTH 5XX Graduate elective (3)

MTH 621 Algebra (3)

MTH 5XX Graduate elective (3)

MTH 5XX Graduate Elective (3)

Undergraduate Elective (3)

Undergraduate Elective (3)

Undergraduate Elective (3)

Undergraduate Elective (3)

Undergraduate Elective (3)

Undergraduate Elective (3)

Total credits for the 4th year (15+15) = 30

Total credits at the end of the 4th year = 121

Year V

MTH 641MathematicalStatistics (3)

MTH 651 Real Analysis (3)

MTH 6XX Graduate elective (3)

MTH 6XX Graduate Elective (3)

Graduate Elective (3)

Graduate Elective (3)

Total credits for the 5th year (9+9) = 18

Total credits at the end of the 5th year = 139