

10-15-1990

Secondary Math Certification

The College at Brockport, College Senate

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Resolution # 5 1990-91



TO: President John E. Van de Wetering

FROM: The Faculty Senate Meeting on 10/15/90 (Date)

RE: X I. Formal Resolution (Act of Determination)
II. Recommendation (Urging the fitness of)
III. Other (Notice, Request, Report, etc.)

SUBJECT: Revisions to the Secondary Mathematics 7-12 Certification BA, BS Programs proposed by the Department of Education and Human Development and the Department of Mathematics

Signed [Signature: Thomas J. Keller] Date Sent 10/17/90
(For the Senate)

TO: The Faculty Senate

FROM: President John E. Van de Wetering

RE: I. Decision and Action Taken on Formal Resolution

- a. Accepted. Effective Date Fall 91
b. Deferred for discussion with the Faculty Senate on
c. Unacceptable for the reasons contained in the attached explanation

II, III.

- a. Received and acknowledged
b. Comment:

DISTRIBUTION: (See attached list for cover page only)

NOTE: Get copy full package from Faculty Senate

Distribution Date 10/22/90 Signed: [Signature] (President of the College)

PROPOSED REVISIONS SECONDARY MATHEMATICS 7-12

BA, BS

HEGIS CODE: 1701.01

PROGRAM CODE:

03444 BA

12088 BS

DEPT. OF EDUCATION AND HUMAN DEVELOPMENT 9/1/90

PROGRAM REVISIONS - SECONDARY MATHEMATICS 7-12

A. Changes in Arts & Sciences requirements:

1. There are no changes in the mathematics major.
2. One year's study of a language other than English.

B. Changes in Professional Education requirements:

1. Development of a foundations course designed to provide early experience in schools and historical, social and philosophical foundations (EDI 320 Self, Schools and Society). This course replaces SOC 412 Schools, Learning and Society and/or EDI 412 Self, Schools and Society. 3 credit hours.
2. Development of two new courses in pedagogy. The first course EDI 446 Introduction to Secondary Mathematics Teaching focuses on basic elements of planning and delivery while the second course EDI 466 Methods of Teaching Secondary Mathematics focuses on mathematics curriculum and related instructional topics such as evaluation, management and discipline.

C. Changes in Course Content (Professional Area)

Other changes will be made in course content to ensure that students are prepared to teach students from minority cultures, gifted-talented students, students with handicapping conditions and students from homes where a language other than English is spoken.

D. Comparison of Old and New Professional Sequence

<u>OLD</u>		<u>NEW</u>	
PSH 484 Adolescence	3 hrs.	EDI 320 Self, School & Society	3 hrs.
HLS 370 Drug Educ. for Teachers	1 hr.	PSH 484 Adolescence	3 hrs.
EDI 432 Methods of Teaching	3 hrs.	EDI 446 Intro. to Secondary	3 hrs.
Secondary Mathematics		Mathematics Teaching	
EDI 440 Practicum	12 hrs.	EDI 466 Methods of Teaching	3 hrs.
EDI 441 Problems	3 hrs.	Secondary Mathematics	
SOC 412/EDI 412 School & Society	3 hrs.	HLS 370 Drug Educ. for Teachers	1 hr.
		EDI 475 Practicum	12 hrs.
		EDI 476 Seminar	3 hrs.

Currently Registered Program

PROGRAM CODE	HEGIS	DEGREE
03444	1701.01	BA
12088	1701.01	BS

EDUCATION PROGRAM REQUIREMENTS

Institution SUNY, College at Brockport

Program Title Mathematics "7-12" Degree BS/BA

Required Course in Academic Discipline

Number	Name	Credits
MTH 201	Calculus I	3
MTH 202	Calculus II	3
MTH 203	Calculus III	3
MTH 281	Discrete Mathematics I	3
MTH 346	Probability and Statistics I	3
MTH 424	Linear Algebra	3
MTH 425	Modern Algebra	3
MTH 446	Probability and Statistics II	3
MTH 457	Real Analysis	3

Two MTH elective courses (399 or higher). 6

CSC 203 Fundamentals of Computer Sci. I. 3

Students in the Mathematics Certification Program must include MTH 432 or MTH 434 Geometry as one of their elective courses.

Additional elective credits in the discipline, if required _____

Total number of credits in academic discipline 36

Required Courses in Pedagogy

Number	Name	Credits
EDI 432	Methods of Teaching Mathematics	3
EDI 440	Student Teaching Practicum	12
EDI 441	Problems of Secondary Education	3
PSH 484	Adolescence	3
SOC 412	Schools Learning and Society	3
HLP 370	Drug Education for Teachers	1

Additional elective credits in pedagogy, if required _____

Total number of credits in pedagogy 25

**SECONDARY MATHEMATICS
TEACHER CERTIFICATION**

<u>Program Requirements</u>	<u>Credit Hours</u>
I. General Education Requirements Students must meet the general education requirements in place at the time of acceptance.	Variable
II. Pre Professional Preparation: Academic Major Students seeking certification as a teacher of mathematics "7-12" must complete the teacher certification track of the mathematics major. This major is as follows:	36 hours
MTH 201 Calculus I	3 hours
MTH 202 Calculus II	3 hours
MTH 203 Calculus III	3 hours
MTH 281 Discrete Math I	3 hours
MTH 346 Prob. & Stat I	3 hours
MTH 424 Linear Algebra	3 hours
MTH 425 Modern Algebra	3 hours
MTH 446 Prob. & Stat II	3 hours
MTH 457 Real Analysis	3 hours
MTH 432 College Geometry	3 hours
or	
MTH 434 Transformational Geometry	3 hours
MTH XXX Elective	3 hours
CSC 203 Fund. Comp. Sci. I	3 hours
The following courses are valuable electives: MTH 405 Math Problem Solving MTH 412 History of Mathematics MTH 421 Number Theory MTH 451 Advanced Calculus A second Geometry course	
III. Pre Professional Preparation: Foreign Language the equivalent of one year of college level study in a language other than English is required for teacher certification in New York State.	0-6 hours
IV. Professional Preparation: Education Courses	13 hours
EDI 320 Self, Schools and Society	3 hours
HLS 370 Drug Education for Teachers	1 hour
PSH 484 Adolescence	3 hours
EDI 446 Introduction to Secondary Mathematics Teaching	3 hours
EDI 466 Methods of Teaching Secondary Mathematics	3 hours

V. Professional Preparation: Student teaching and Senior Seminar: 15 hours

EDI 475	Practicum	12 hours
EDI 476	Seminar	3 hours

Total Pre Professional and Professional Hours 64-70 hours

NEW COURSE DESCRIPTIONS

SECONDARY MATHEMATICS

EDI 320 Self, Schools and Society 3 credit hours

An introductory course in secondary education designed to introduce the student to the role of teaching and education in contemporary American society. Includes historical, sociological, philosophical and psychological foundations of education.

EDI 446 Introduction to Secondary Mathematics Teaching
Prerequisite: EDI 320, PSH 484, Matriculation in Program
3 credit hours

Participants will demonstrate knowledge of Elements of Instruction in preparing a lesson plan, delivering a lesson plan to peer group, and evaluating a lesson plan. Participants will also become familiar with the different learning/teaching styles, demonstrate good questioning techniques (Bloom's) and become familiar with course, unit, and daily planning techniques.

EDI 466 Methods of Teaching Secondary Mathematics 3 credit hours
Prerequisites: EDI 446

Participants will become familiar with: evaluation techniques (quiz, test construction), classroom management techniques (attendance, cooperative learning, discipline, grading techniques), the mathematics curricula in grades 7-12. Participants will also participate in pre-teaching observation and practice problem solving techniques.

ADMISSIONS CRITERIA
and Other Program Information
Secondary Mathematics Certification 7-12

1. Grade Point Average (G.P.A.) - The minimum overall GPA requirement is 2.5. However, depending on the number and quality of applicants at any point in time, the actual requirement may be higher. Some qualified candidates may not be accepted in periods of high demand.
2. Applications will be considered after the student has completed 30 hours of college level coursework and has completed at least 9 hours of mathematics courses selected from the Brockport mathematics major with at least a 2.5 G.P.A. in these courses.
3. Students must maintain an overall 2.5 G.P.A. and at least a 2.25 G.P.A. in the major field in order to continue in the program.
4. Effective 9/1/90 the NTE Core Battery Tests of Communication Skills and General Knowledge have replaced the Basic Skills Tests as a component of the admissions/continued eligibility requirements of all certification programs.
5. Students may be accepted to a program without NTE scores, but will not be admitted to a methods course after April 1, 1991 without successfully passing the Communication Skills and General Knowledge parts of the Core Battery.
6. Students who have completed the Brockport Basic Skills Tests are exempt from the NTE requirement for admission/continued eligibility. However, all students must successfully complete the NTE in order to receive state certification.
7. Closing dates for receipt of applications for provisional certification programs are as follows:

March 1 for enrollment beginning in the fall or later.

October 1 for enrollment beginning in the spring or later.

Applications may be reviewed after the following closing dates if seats are available:

January 2 for enrollment beginning in the spring or later.

June 1 for enrollment beginning in the fall or later.

For consideration, all materials must be in by the closing date. Notification will be made approximately 3 weeks after the review date.