Resolution # 5  1990-91

TO:       President John E. Van de Wetering
FROM:     The Faculty Senate    Meeting on 10/16/90  (Date)
RE:  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     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 1991
     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:  Copy sent package for faculty, Shanahan

Distribution Date 10/24/90 Signed: (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 EDD 446 Introduction to Secondary Mathematics Teaching focuses on basic elements of planning and delivery while the second course EDD 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

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSH 484 Adolescence</td>
<td>EDI 320 Self, School &amp; Society</td>
</tr>
<tr>
<td>HLS 370 Drug Educ. for Teachers</td>
<td>PSH 484 Adolescence</td>
</tr>
<tr>
<td>EDI 432 Methods of Teaching Secondary Mathematics</td>
<td>EDI 446 Intro. to Secondary Mathematics Teaching</td>
</tr>
<tr>
<td>EDD 440 Practicum</td>
<td>EDD 466 Methods of Teaching Secondary Mathematics</td>
</tr>
<tr>
<td>EDD 441 Problems</td>
<td></td>
</tr>
<tr>
<td>SOC 412/EDI 412 School &amp; Society 3 hrs.</td>
<td>HLS 370 Drug Educ. for Teachers 1 hr.</td>
</tr>
<tr>
<td></td>
<td>EDD 475 Practicum 12 hrs.</td>
</tr>
<tr>
<td></td>
<td>EDD 476 Seminar 3 hrs.</td>
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</table>
**Currently Registered Program**

<table>
<thead>
<tr>
<th>PROGRAM CODE</th>
<th>HEGIS</th>
<th>DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>03444</td>
<td>1701.01</td>
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<td>12088</td>
<td>1701.01</td>
<td>BS</td>
</tr>
</tbody>
</table>

**EDUCATION PROGRAM REQUIREMENTS**

Institution: SUNY, College at Brockport

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

**Required Course in Academic Discipline**

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 201</td>
<td>Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 202</td>
<td>Calculus II</td>
<td>3</td>
</tr>
<tr>
<td>MTH 203</td>
<td>Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>MTH 281</td>
<td>Discrete Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 346</td>
<td>Probability and Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 424</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MTH 425</td>
<td>Modern Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MTH 446</td>
<td>Probability and Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>MTH 457</td>
<td>Real Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

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 _______

**Required Courses in Pedagogy**

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDI 432</td>
<td>Methods of Teaching Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>EDI 440</td>
<td>Student Teaching Practicum</td>
<td>12</td>
</tr>
<tr>
<td>EDI 441</td>
<td>Problems of Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>PSH 484</td>
<td>Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>SOC 412</td>
<td>Schools Learning and Society</td>
<td>3</td>
</tr>
<tr>
<td>HLF 370</td>
<td>Drug Education for Teachers</td>
<td>1</td>
</tr>
</tbody>
</table>

Additional elective credits in pedagogy, if required _______

Total number of credits in pedagogy _______
Proposed Program  
9/1/90

SECONDARY MATHEMATICS  
TEACHER CERTIFICATION

Program Requirements                      Credit Hours

I.  General Education Requirements       Variable

   Students must meet the general education
   requirements in place at the time of
   acceptance.

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:

    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.

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     3 hours
       Mathematics Teaching
    EDI 466 Methods of Teaching           3 hours
       Secondary Mathematics
V. Professional Preparation: Student teaching and Senior Seminar:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDI 475</td>
<td>Practicum</td>
<td>12</td>
</tr>
<tr>
<td>EDI 475</td>
<td>Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

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.