

10-29-1990

## Secondary Earth Science Certification

The College at Brockport, College Senate

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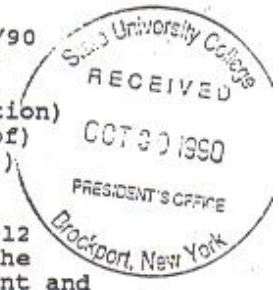
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Resolution # 8 1990-91

TO: President John E. Van de Wetering  
FROM: The Faculty Senate Meeting on 10/29/90 (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 Earth Science 7-12 Certification BA, BS Programs proposed by the Department of Education and Human Development and the Department of Earth Sciences.



Signed Thomas J. Keller Date Sent 10/30/90  
(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 11/1/91  
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: Cover page only  
see list for distribution

Distribution Date 11/5/90 Signed: [Signature]  
(President of the College)

# PROPOSED REVISIONS SECONDARY EARTH SCIENCE 7-12

BA, BS

HEGIS CODE: 1917.01

PROGRAM CODE:

03450 BA

12098 BS

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

PROGRAM REVISIONS - SECONDARY SCIENCE 7-12

A. Changes in Arts & Sciences requirements:

1. All students will complete a major and a minor in the sciences. (No change except that the minor was not previously specifically required for Earth Science).

All students will be required to complete one additional year in two other science disciplines (16 hours).  
Brockport students will be certified to teach general science in addition to the primary area of certification.

2. All students will be required to complete NAS 486 Laboratory Science Safety.\*  
Rationale: Teachers of any sciences must be cognizant of state and national safety regulations and must also be competent in ensuring a safe environment for their students in the science classrooms and labs.

\*Exception: Chemistry majors who are required to take the appropriate chemistry safety course.

3. One year's study of a language other than English.

B. Changes in Professional Education requirements:

1. Inclusion 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 a new laboratory methods course in each of the science disciplines.

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> |
|----------------------------------|------------|
| PSH 484 Adolescence              | 3 hrs.     |
| HLS 370 Drug Educ. for Teachers  | 1 hr.      |
| EDI 43X Methods of Teaching XXX  | 3 hrs.     |
| EDI 440 Practicum                | 12 hrs.    |
| EDI 441 Problems                 | 3 hrs.     |
| SOC 412/EDI 412 School & Society | 3 hrs.     |

|  | <u>NEW</u> |
|--|------------|
| EDI 320 Self, School & Society                   | 3 hrs      |
| HLS 370 Drug Educ. for Teachers                  | 1 hr.      |
| PSH 484 Adolescence                              | 3 hrs      |
| EDI 447 Methods of Teaching<br>Secondary Science | 3 hrs      |
| *CHM 480 Practical Chemistry Lab.<br>Pedagogy    | 3 hrs      |
| EDI 475 Practicum                                | 12 hrs     |
| EDI 476 Seminar                                  | 3 hrs      |

\*Example from Chemistry

Currently Registered Program

| PROGRAM CODE | HEGIS   | DEGREE |
|--------------|---------|--------|
| 03450        | 1917.01 | BA     |
| 12098        | 1917.01 | BS     |

EDUCATION PROGRAM REQUIREMENTS

Institution SUNY, College at Brockport

Program Title Earth Science "7-12" Degree BA/BS

Required Courses in Academic Discipline

| Number  | Name                  | Credits |
|---------|-----------------------|---------|
| GEL 101 | Our Earth             | 4       |
| ESC 200 | Intro to Oceanography | 3       |
| ESC 211 | Weather               | 4       |

Additional elective credits in the discipline, if required 19

Total number of credits in academic discipline 30

Required Courses in Pedagogy\*

| Number  | Name                                  | Credits |
|---------|---------------------------------------|---------|
| EDI 320 | Self, Schools & Society               | 3       |
| PSH 484 | Adolescence                           | 3       |
| HLS 370 | Drug Education for Teachers           | 1       |
| EDI 433 | Methods of Teaching Secondary Science | 3       |
| EDI 440 | Student Teaching Practicum            | 12      |
| EDI 441 | Problems of Secondary Education       | 3       |

Additional elective credits in pedagogy, if required \_\_\_\_\_

Total number of credits in pedagogy 25

Proposed Revision

SECONDARY EARTH SCIENCE  
TEACHER CERTIFICATION

This program is designed to prepare students to teach earth science in New York State schools in grades 7-12. In addition to certification in earth science, the student will also meet the New York State requirements for certification in general science.

Program Requirements

Credit Hours

- I. General Education Requirements  
Students must meet the general education requirements in place at the time of acceptance

Variable

- II. Pre Professional Preparation:

Major in Earth Science

The students majoring in earth science takes a required core in geology, meteorology and oceanography supplemented with elective courses related to individual interests and career goals. A minimum of 30 credits is required for the major. While traditional programs may be elected to fit the career goals of individual students, studies are generally concentrated in one of three areas:

Required Courses (11 credits)

|                                     |              |
|-------------------------------------|--------------|
| GEL 101 Our Earth or its equivalent | 4            |
| ESC 200 Oceanography                | 3            |
| or                                  | or           |
| ESC 201 Oceanography                | 4            |
| ESC 211 Weather or its equivalent   | 4            |
| Electives by Advisement             | <u>18-19</u> |
|                                     | 30           |
| Recommended                         |              |
| AST 201 General Astronomy           | 4            |

The above requirements refer to the earth science major. In addition, the following requirements must be met for teacher certification:

|  |    |
|--|----|
| Minor in a second science  | 18 |
| Four semesters of additional science w/lab<br>(Two semesters study in each of two additional science disciplines.) | 16 |
| NAS 486 Laboratory Science Safety  | 3  |
| MTH 201 Calculus   | 3  |

GE 2  
 SECONDARY EARTH SCIENCE TEACHER CERTIFICATION

III. Pre-Professional Preparation: Foreign Language 0-6 hours  
 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 hours |
| PSH 484 | Adolescence                                    | 3 hours |
| EDI 447 | Methods of Teaching Sec. Science               | 3 hours |
| EDI 467 | Earth Science Laboratory Methods and Materials | 3 hours |

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

|         |                                |          |
|---------|--------------------------------|----------|
| EDI 475 | Practicum                      | 12 hours |
| EDI 476 | Seminar in Secondary Education | 3 hours  |

Total Hour Requirements

|  |   |
|--|---|
| General Education                              | 28 or more, depending on courses chosen |
| Earth Science Major                            | 30                                      |
| Minor in Second Science and Other Science Req. | 40                                      |
| Foreign Language                               | 0-6                                     |
| Education courses and practicum                | 28                                      |
|  | <hr/> 126 minimum                       |

More if language not satisfied  
 More if not ready for Calculus upon entry

NEW COURSE DESCRIPTIONS  
SECONDARY EARTH SCIENCE

EDI 320 Self, Schools and Society 3 credit hours

A beginning course in secondary education designed to introduce students to the role of teaching and learning in contemporary American society. Includes historical, sociological, philosophical and psychological foundations of education.

EDI 467 Laboratory Methods and Materials 3 credits hours  
Prerequisite or Corequisite: PSH 484, EDI 320, EDI 447

A school-based course in which students work with a classroom teacher in preparing lab and demonstration materials, assist students in the lab and evaluate the effectiveness of the materials. A minimum of three hours per week is required.



**ADMISSIONS CRITERIA**

**and Other Program Information**

**Secondary Earth Science 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. Credit Hour Requirements. Applications will be considered after the student has completed 24 hours of college level coursework.
3. Students must maintain an overall 2.5 G.P.A. and a 2.5 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.

DEPT. OF EDUCATION AND HUMAN DEVELOPMENT 1-1-91