

4-20-1987

## Revision of the Meteorology Major

The College at Brockport, College Senate

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Resolution #21

TO: President John E. Van de Wetering

FROM: The Faculty Senate Meeting on April 20, 1987  
(Date)

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

SUBJECT: Revision of the Meteorology Major



Signed Logan M. Wier Date Sent 4/22/87  
(For the Senate)

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TO: The Faculty Senate

FROM: President John E. Van de Wetering

RE: I. Decision and Action Taken on Formal Resolution

a. Accepted. Effective Date 5/1/87

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: Vice Presidents: \_\_\_\_\_

Others: \_\_\_\_\_

Distribution Date: 5/1/87 Signed: [Signature]  
(President of the College)

Date Received by the Senate: \_\_\_\_\_

Department of the Earth Sciences  
March 1987

Present METEOROLOGY MAJOR Program

**Major in Meteorology**  
The meteorology major must earn a minimum of 30 hours in meteorology, complete one year of college-level physics with laboratory, and take three semesters of calculus. Additional supporting work in the sciences and mathematics is recommended. The following courses are required of all majors:

ESC 211 Weather	4 hours
ESC 311 Synoptic Meteorology	3 hours
ESC 312 Weather Forecasting Laboratory	3 hours
ESC 411-412 Hydrology and Hydrology Laboratory	4 hours
or	
ESC 413-414 Environmental Climatology and Laboratory	4 hours
ESC 415 Physical Meteorology	3 hours
ESC 416 Atmospheric Thermodynamics	3 hours
ESC 417 Dynamic Meteorology	7 hours
ESC electives	
<b>TOTAL</b>	<b>30 hours</b>

MTH 201-202 Calculus I, II, III	9 hours
PHS 201-202 College Physics I, II	8 hours
<b>TOTAL</b>	<b>17 hours</b>

Additional mathematics, computer science or science courses are recommended, depending on individual goals. In some cases, these may be applied toward the major with written department approval.  
To make normal progress toward a degree in meteorology, a student should complete ESC 211 in the freshman year, and ESC 311, a year of physics and a year of calculus before entering the junior year.

Proposed Revision of the METEOROLOGY MAJOR

We propose the meteorology major be changed along the lines noted below to strengthen the overall program by adding small portions to two courses and providing a culminating experience. The proposed changes are:

- a) ESC 311, Synoptic Meteorology (3 cr.), to become a four credit course consisting of three lecture meetings and a laboratory.
- b) ESC 312, Weather Forecasting Laboratory (3 cr.), to become a four credit course as with ESC 311.
- c) ESC 491, Seminar on Meteorological Problems (1 cr.), to be created as a culminating experience for all majors.

d) The mathematics corequisite course requirement, MTH 201 Calculus III, be changed to the option of MTH 203 or MTH 455 Differential Equations or PHS 201 Mathematical Methods of Physics. Each of these courses will serve the student well and cover important material for the program. Also, the option will provide flexibility for individual career goals.

e) ESC 416, Atmospheric Thermodynamics (3 cr.), will be retitled MICROMETEOROLOGY to reflect a rearrangement of topics included within it.

The program will now consist of 33 semester hours for the major. We hope these changes could be approved for fall implementation in Fall, 1988.

The proposed major in the catalog would now read:

Major in Meteorology

The meteorology major must earn a minimum of 33 hours in meteorology, complete one year of college-level physics with laboratory, take two semesters of calculus and one advanced level mathematics course from among those listed. Additional supporting work in the sciences and mathematics is strongly recommended. The computer literacy requirement should be met with a programming course. The following courses are required of all majors:

ESC 211 Weather	4 hrs.
ESC 311 Synoptic Meteorology	4 hrs.
ESC 312 Weather Forecasting Laboratory	4 hrs.
ESC 411-412 Hydrology and Hydrol. Lab.	4 hrs.
or	
ESC 413-414 Environmental Climatology & Lab	4 hrs.
ESC 415 Physical Meteorology	3 hrs.
ESC 416 Micro-meteorology	3 hrs.
ESC 417 Dynamic Meteorology	3 hrs.
ESC 491 Seminar on Meteorological Problems	1 hr.
Meteorology electives (by advisement)	1 hrs.
<b>TOTAL</b>	<b>33 hrs.</b>

MTH 201-202 Calculus I, II	6 hrs.
MTH 203 Calculus III, OR MTH 455	
Differential Equations, OR PHS 201	3 hrs.
Mathematical Methods of Physics	
PHS 201-202 College Physics I, II	8 hrs.
	17 hrs.

Additional mathematics, computer science or science courses are recommended, depending on individual goals. In some cases, these may be applied toward the major with written departmental approval.

To make normal progress toward a degree in meteorology, a student should complete ESC 211 in the freshman year, and ESC 311, a year of physics and a year of calculus before