

Glassboro State College Senate Curriculum Committee

Approval Form

Proposal Title: Changes in the "Physical Sciences" degree requirements: Elimination of the Earth Science Specialization

Sponsor(s) Charles W. Schultz, Ph.D. Dept.: Physical Sciences Ext. 7348

Check one: Course Specialization Concentration Minor Achievement Certificate
 Certification Program Major Program Minor Change deletion - Earth Science Specialization
(please name deletion or credit/title/catalog change)

Undergraduate Graduate _____ Credit Hours

<p>Step 1 (Department)</p> <p><input checked="" type="checkbox"/> Approved <u>Oct 15, 1991</u> Date</p> <p><input type="checkbox"/> Not Approved</p> <p><u>C. W. Schultz</u> Dept. CC Chairperson</p> <p><input checked="" type="checkbox"/> Reviewed <u>Nov 18, 1991</u> Date</p> <p><u>C. W. Schultz</u> Dept. Chairperson</p>	<p>Step 2 (Receipt)</p> <p><input checked="" type="checkbox"/> SCC# _____</p> <p>Proposal Received _____ Date</p> <p>_____ SCC Chairperson</p>	<p>Step 3 (School CC)</p> <p>Reviewed _____</p> <p><input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved</p> <p>Comments:</p> <p>_____ School Curr Comm Chairperson</p>
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Step 4 (Academic Dean) **Comments:**

Recommend
 Not Recommend
 Conditionally Recommend (see comments)

Reviewed _____
Date

JAN 20 1993
Signature, Dean of School

Step 5 (SCC)

Open Hearing 12/19/92
~~2/26/93~~ Date

Approved by Senate Curriculum Committee 2/26/93
Date

Returned to sponsor(s) for the following reasons:

Step 6 (Senate)

Presented to Senate 3/5/93
Date

Approved Not Approved

Notification to Executive Vice-President/Provost 3/5/93
Date

Mary J. Fulmer
Signature, SCC Chairperson

Step 7 (Executive V.P./Provost)

Received _____

Date

If no, reasons are as follows:

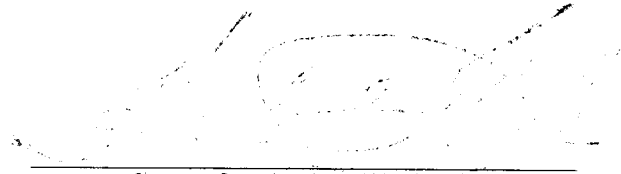
Approved Yes No

Student credit hours _____

Faculty load hours _____

Equalized credit hours _____

Official copy and approval sheet filed MAR. 29 1993
Date



Signature, Executive Vice-President/Provost

Registrar

Approved course description received 12 Mar. 93
Date

Hegis Taxonomy and Course Number assigned delete Earth Sci Specialization

B. F. Kelsey
Signature, Registrar

12 Mar. 93
Date

Notification forwarded:

- Senate Curriculum Committee Chairperson
- Department Chairperson(s)
- Academic Dean(s)
- Registrar
- Sponsor(s)

To: Faculty Senate Curriculum Committee

From: Charlotte Bonville, Chairman, Department of Physical Sciences *CB*

Re: Changes in the B.S. Physical Sciences Degree Model: Elimination of the Earth Science Specialization

The format of this proposal is narrative since it does not exactly fit any of the categories in the curricular model. We propose the elimination of one of the three specializations within the Physical Sciences degree model, addition of a related elective area, and four other adjustments to the requirements.

The degree in "Physical Sciences" has a core of 46 credit hours (including specified general education) and then requires additional specialization in chemistry, earth science or physics. Recent retirements have eliminated all our geology faculty, and there appears to be little likelihood they will be replaced. A program with no faculty has little viability.

We are proposing the elimination of the earth science specialization from the Physical Sciences degree and elimination of the geology level II courses as requirements in the remaining specializations. Any decrease in the hours required in the chemistry or physics specializations will be exactly compensated for by adding a "related elective" requirement. (The total hours in each model will, therefore, be the same.)

Four other small changes in the degree requirements are requested at the same time. These changes are:

- (1) The first is that Biology II will be moved from "science and math" general education to "restricted electives."
- (2) The second is that Calculus III be moved from "core" to "science and math" general education.
- (3) The third change is to eliminate the choice of three courses in the physics specialization to three courses which are specified. The specified courses are optics and light, analytical mechanics and electricity and magnetism. The courses reflect the judgment of appropriateness by the physics faculty.
- (4) In order to be consistent with the new general education model, increase the communications area from 6 to 9 s.h. This increase, with no concurrent reductions, will demand that the total degree requirements be increased from 126 to 133 s.h.

The present and proposed Physical Sciences Degree models are given below: "Present Model" "Proposed Model"

I. General Education	49 s.h.	I. General Education	51 s.h.
A. Science and Math	15 s.h.	A. Science and Math	15 s.h.
C001 100 Intro. to Programming		C001 100 Intro. to Programming	
1701 130 Calculus I		1701 130 Calculus	
0401 100 Biology		1701 131 Calculus II	
0401 101 Biology II		0401 100 Biology I	
B. Communications	8 s.h.	B. Communications	8 s.h.
C. Social and Behavioral Science	10 s.h.	C. Social and Behavioral Science	10 s.h.
D. Humanities, History, Language	12 s.h.	D. Humanities, History, Language	12 s.h.
E. Fine and Performing Arts	3 s.h.	E. Fine and Performing Arts	3 s.h.
II. Health and Physical Education	3 s.h.	II. Health and Physical Education	3 s.h.
III. Major Requirements	60-63 s.h.	III. Major Requirements	62-63 s.h.
A. Common Core		A. Common Core	
1906 100 Chemistry I		1906 100 Chemistry I	
1906 101 Chemistry II		1906 101 Chemistry II	
1701 131 Calculus II		1902 200 Physics I with Calculus	
1914 100 Geology		1902 201 Physics II with Calculus	
1914 101 Geology II		1911 120 Astronomy	
1902 200 Physics I with Calculus		OR	
1902 201 Physics II with Calculus		1913 101 Meteorology	
1911 120 Astronomy			
OR			
1913 101 Meteorology			
B. Specialization (Choose One)		B. Specialization (Choose Chemistry or Physics)	
Chemistry	17 s.h.	Chemistry	17 s.h.
1907 300 Organic Chemistry		1907 300 Organic Chemistry	
1907 301 Organic Chemistry II		1907 301 Organic Chemistry II	
1909 350 Quantitative Analysis		1909 350 Quantitative Analysis	
1908 400 Physical Chemistry I		1908 400 Physical Chemistry I	
1908 402 Physical Chemistry Lab I		1908 402 Physical Chemistry Lab I	
Physics	14-17 s.h.	Physics	14 s.h.
1902 300 Physics II and any three		1902 300 Physics III	
of the following:			
1902 399 Electric Circuits		1902 310 Electricity and Magnetism	
1902 305 Optics and Light		1902 305 Optics and Light	
1902 425 Mathematical Physics		1902 315 Analytical Mechanics	
1902 315 Analytical Mechanics			
Earth Science	19 s.h. or more		
1913 101 Meteorology			
OR			
1911 120 Astronomy			
1906 330 Intro. to Mineralogy			
1919 110 Intro. to Planetary Science			
1919 305 Intro. to Planetary Geology			
AND			
one of an advanced geology course			

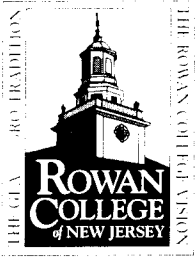
c. Repeat 24-27 (a) 12 cr.

Choose and count for total credit (repeat) courses from the list below.

- 0401 101 Biology I
- 1910 120 Astronomy
- 1910 211 Observational Astronomy
- 1915 101 Meteorology
- 1701 030 Calculus III
- 1702 360 Intro to Prob. & Statistics I
- 1902 399 Electric Circuits
- 1902 425 Mathematical Physics
- 1904 465 Radiation Science
- 0414 345 Intro to Biochemistry
- 1906 410 Instrumental Methods
- 1906 300 Advanced Inorganic Chemistry
- 1906 401 Physical Chemistry II
- 1907 465 Advanced Organic Chemistry
- 1907 467 Organic Synthesis
- 1907 470 Organic Quantitative Analysis
- 1907 475 Polymer Synthesis
- 1907 476 Polymer Characterization

W. Free Electives 19-24 cr. W. Free Electives 21-22 cr.

V. Total Requirements 120 cr. V. Total Requirements 123 cr.



Rowan College of New Jersey

Glassboro, New Jersey 08028-1701 • (609) 863-5201

Office of the President

January 7, 1993

JAN 28 1993

RECEIVED

Dr. Charles Schultz
Department of Physical Sciences
Rowan College of New Jersey

Dear Chuck:

Thanks for sharing your revised proposal for the B.S. in Physical Sciences. The proposed model better addresses the standards of both the National Association of State Directors of Teacher Education and Certification (NASDTEC) and the National Council for the Accreditation of Teacher Education (NCATE)/National Science Teachers Association (NSTA).

Chuck, I offer two suggestions that should appease those reviewing our program for accreditation. A notation in the college catalog and on advisement materials should state that Physical Science majors pursuing teacher certification must complete Physical Geography (as general education or free elective) as well as 9 sh. in the areas of astronomy and meteorology for a total of 12 sh. in the earth/space sciences (as general education and/or related electives).

I would also recommend that we add a note indicating that prospective physical science teachers should complete the comprehensive physical science track rather than the highly specialized options in chemistry or physics. This accommodation will provide the broad-based and balanced preparation called for by NSTA/AACTE. It will also better prepare the prospective teacher for the multiple and varied instructional assignments likely in public schools (e.g. general science, physical science, IPS, earth science, chemistry or physics).

These two recommendations, if accepted, will not change your degree model. They will, however, specify for the prospective teacher of physical science the courses that must be taken for institutional recommendation for teacher certification while satisfying NASDTEC and NCATE/NSTA accreditation standards.

I hope these suggestions prove helpful. Please let me know if I can be of any further assistance.

Sincerely,

Thomas J. Gallia
Executive Assistant
to the President

c: C. Faison
L. Dinsmore



Rowan College of New Jersey

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School of Education and Related Professional Studies
Office of the Dean

To: Dr. Charles Schultz

From: Christy Faison, Executive Assistant to the Dean, SERPS

Date: January 9, 1993

Re: Changes in Physical Science Degree Requirements

Thank-you for sharing your proposal regarding the changes in the Physical Science degree. I have discussed the matter with Dr. Tom Gallia and concur with his letter dated January 7, 1993. I, too, support your proposal with the recommendations suggested by Dr. Gallia. Please contact me if I may be of further assistance.

cc: Dr. Tom Gallia