

Glassboro State College Senate Curriculum Committee

Approval Form

Proposal Title: Workshop in Mathematics & Science

Sponsor(s) J. Caldwell Dept.: Mathematics Ext. 2515

and others (see list) (Interdisciplinary Course)

Check one: Course Specialization Concentration Minor Achievement Certificate

Certification Program Major Program Minor Change

(please name deletion or credit/article/catalog change)

Undergraduate Graduate 3 Credit Hours

Step 1 (Department)

Approved 10-1-93
Date

Not Approved
J. Caldwell
Dept. CC Chairperson

Reviewed _____
Date
J. Caldwell, Chair
SSI Committee
Dept. Chairperson

Step 2 (Receipt)

SCC# 93-94-29

Proposal Received _____
Date

OCT 10 1993
Mary L. Pitman
SCC Chairperson

Step 3 (School CC)

Reviewed 11/4/93

Approved
 Not Approved

Comments: ~~not recommended~~

Joanna Scott
School Curr Comm. Chairperson

Step 4 (Academic Dean)

Comments:

- Recommend
- Not Recommend
- Conditionally Recommend (see comments)

Reviewed _____
Date

[Signature]
Signature, Dean of School

Step 5 (SCC)

Open Hearing 11/5/93
Date

Approved by Senate Curriculum Committee 12/3/93
Date

Returned to sponsor(s) for the following reasons:

Step 6 (Senate)

Presented to Senate 12/10/93
Date

Approved Not Approved

Notification to Executive Vice-President/Provost 12/15/93
Date

Mary L. Pitman
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 12/21/93
Date

Signature, Executive Vice-President/Provost

Registrar

Approved course description received 12/21/93
Date

Hegis Taxonomy and Course Number assigned _____

Signature, Registrar

Date

Notification forwarded:

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

COURSE PROPOSAL

Workshop in Mathematics and Science

1. Details

- a. Course Title: Workshop in Mathematics and Science
- b. Sponsor(s): Janet Caldwell, Mathematics
Robert Blough, Elementary Education
Louis Molinari, Elementary Education
Karen Magee-Sauer, Chemistry and Physics
Joanne Scott, Life Sciences
- c. Credit Hours: 3
- d. Course Level: Graduate
- e. Curricular Effect: Part of a new emphasis strand in Master's in Elementary Education
- f. Prerequisites: Seminar on Integrating Mathematics and Science
- g. Suggested Time and Scale of Implementation: To be offered each summer, beginning in 1994.
- h. Adequacy of Resources: For at least the first five years, this course will be funded through a grant. Faculty from a variety of disciplines will be encouraged to teach the course. Present resources are adequate for teaching the course. At the conclusion of the grant period, this course will be administered through the School of Liberal Arts and Sciences interdisciplinary program. The frequency of its offering will depend upon demand.

2. Rationale

This course will be the second of three to be offered as part of the Statewide Systemic Initiative in elementary mathematics and science. As part of this statewide program, Rowan faculty have developed a series of three advanced graduate-level, interdisciplinary courses to be offered each spring, summer, and fall. It is anticipated that these courses will form the core experience for an elementary mathematics/science endorsement to the state K-8 teaching certificate. These courses build on the participants' expertise in mathematics and/or science to develop leadership skills in integrating mathematics and science.

This course will initially be administered through the SSI grant. At the end of the grant period, the course will be administered as an interdisciplinary course in Liberal Arts and Sciences.

3. Essence of the Course

This course provides an opportunity to address the specific needs of advanced graduate students in elementary education with respect to mathematics and science. Students will determine specific topics to be addressed in hands-on workshops, based on their interests and backgrounds. These workshops may relate to mathematics, life science, physics, chemistry, or the teaching of these subjects. In addition, this course provides an overview of the resources available for science and mathematics in the South Jersey area.

a. Objectives

Students completing this course will be able to:

- explain how the course has increased their understanding of mathematics and the sciences and the teaching of these subjects.
- identify museums and other non-school sites suitable for field trips, describing the mathematics and science opportunities available at these sites.
- identify, select, and use appropriate resources (people, places, books) in K-8 mathematics and science.

b. Topical Outline/Content - see above.

c. Evaluation and Grading

Students in this course will be evaluated based on participation in class activities, completion of assigned projects, and/or more traditional quizzes.

d. Course Evaluation

The course will be evaluated by an outside evaluator on an ongoing basis as part of the Statewide Systemic Initiative. In addition, faculty will use formative evaluations each semester to improve the course.

4. Results of Consultations

This course is brought forward as an interdisciplinary course, sponsored by Elementary Education, Mathematics, Chemistry and Physics, and Life Sciences.

6. Catalog Description

Workshop in Mathematics and Science

(Prerequisite: Seminar on Integrating Mathematics and Science)

Students in this course will be involved in hands-on workshops designed to address individual interests and needs with respect to both content and pedagogy. In addition, students will study the identification and selection of appropriate instructional materials for teaching mathematics and science. Also included in the course is planning, implementing, and evaluating field trips in science and mathematics.