

K O W A N C O L L E G E
C U R R I C U L U M C O M M I T T E E

0801-401 R

PROPOSAL TITLE: New Course: Developing and Adapting Instruction in Elementary Classrooms

UNDERGRADUATE GRADUATE CREDIT HOURS

SPONSOR(S): Co-Teach Program Committee

DEPARTMENT & TELEPHONE# Interdisciplinary / 4750

CHECK ONE: COURSE MINOR PROGRAM CONCENTRATION SPECIALIZATION
 ACHIEVEMENT CERTIFICATE CERTIFICATION PROGRAM MAJOR PROGRAM

STEP #1 (DEPARTMENT)	STEP #2 (RECEIPT)	STEP #3 (SCHOOL)
<input checked="" type="checkbox"/> APPROVED/DATE: <input type="checkbox"/> NOT APPROVED/DATE: <u>C. L. Gieser</u> DEPT. CURRICULUM CHR.	SCC# <u>96-97-120</u> DATE RECEIVED: <u>3-12-97</u>	REVIEWED DATE: <u>4/2/97</u> <input checked="" type="checkbox"/> RECOMMEND TO APPROVE <input type="checkbox"/> RECOMMEND NOT TO APPROVE FORWARD FOR OPEN HEARING <input checked="" type="checkbox"/> WITHOUT RESERVATIONS <input type="checkbox"/> WITH RESERVATIONS COMMENTS:
<input checked="" type="checkbox"/> REVIEWED/DATE: <u>3/6/97</u> <u>C. L. Gieser</u> DEPT. CHR.	<u>Ronald J. Gieser</u> SENATE CURRICULUM CHR.	<u>John L. ...</u> SCHOOL COMMITTEE CHR.

STEP #4 (ACADEMIC DEAN) COMMENTS:

RECOMMEND
 NOT RECOMMEND
 CONDITIONALLY RECOMMEND
 (SEE COMMENTS)
 DATE & SIGNATURE, DEAN OF SCHOOL [Signature]

STEP #5 (SENATE CURRICULUM COMMITTEE)

DATE OF OPEN HEARING 10/22

APPROVED BY SENATE CURRICULUM COMMITTEE (DATE) 10/22/97

RETURNED TO SPONSOR(S) FOR THE FOLLOWING REASONS: See above

STEP #6 (SENATE)

DATE PRESENTED TO SENATE 1-27-98 APPROVED NOT APPROVED

NOTIFICATION TO EXECUTIVE VICE PRESIDENT/PROVOST (DATE) 1-28-98

SENATE CURRICULUM COMMITTEE CHAIR SIGNATURE/DATE [Signature]

STEP #7 (EXECUTIVE VICE PRESIDENT/PROVOST)

DATE RECEIVED _____

APPROVED: YES NO

IF NO, REASONS ARE AS FOLLOWS:

STUDENT CREDIT HOURS _____

FACULTY LOAD HOURS _____

EQUALIZED CREDIT HOURS _____

OFFICIAL COPY & APPROVAL SHEET FILED (DATE) _____

SIGNATURE, EXECUTIVE VICE PRESIDENT/PROVOST *CMH*

*Approved
N.T. Pres Council
10/7/98*

REGISTRAR

DATE APPROVED COURSE DESCRIPTION RECEIVED 11/17/98

HEGIS TAXONOMY AND COURSE NUMBER ASSIGNED _____

DATE/SIGNATURE OF REGISTRAR *Robert A. Kulat 11/24/98*

NOTIFICATION FORWARD:

SENATE CURRICULUM COMMITTEE CHAIRPERSON

DEPARTMENT CHAIRPERSON(S)

ACADEMIC DEAN(S)

REGISTRAR

SPONSOR(S)

Transmittal 1/11/99

Course Proposal

1. Details

- a. Course Title: Developing and Adapting Instruction in Elementary Classrooms
- b. Sponsors: Co-Teach Committee: Sharon Bianco, Christy Faison, Cindi Hasit, Jay Kuder, Janet Moss, and Margaret Tannenbaum
- c. Credit Hours: 4 S.H.
- d. Course Level: Senior
- e. Curricular Effect: Major Requirement
- f. Prerequisites: Matriculation in the major in Education, Instructional Planning and Collaboration, and Instructional Implementation and Collaboration
- g. Suggested time and scale of implementation: Fall 2000
- h. Adequacy of present staff and resources: All current resources are adequate or can be provided through currently existing mechanisms. Departments will have to be compensated to reassign faculty to teach this course.
- i. Short term evaluations: not applicable, the course has never been offered

2. Rationale:

Understanding the standards for, goals of, and value of mathematics, science and technology instruction in elementary classrooms is essential for teachers of the 21st century. This course is designed to prepare elementary teacher candidates in the Co-Teach certification program to use a variety of teaching models and strategies to make mathematics and science instruction accessible to all students. A technology component addressing computers as tools for teachers and students will be incorporated. Issues of equity, curriculum integration, collaboration, and reflection will be emphasized in both course and field assignments. The field component in an inclusion classroom will allow for practical application of course content.

3. Essence of the Course

a. Objectives

Students will:

- (1) design math and science curricula that adhere state, NSTA and NCTM standards, are conceptually oriented, research based, and integrated with technology and other curricula
- (2) apply a knowledge of the characteristics of various exceptionalities and their effect on the teaching of math and science
- (3) use the research pertaining to how children learn math and science to design math and science curricula and appropriate learning activities
- (4) design lessons in science and math which incorporate appropriate technology for all students, including those with special needs
- (5) demonstrate their ability to facilitate learning by all children, regardless of physical, mental or cultural, differences
- (6) demonstrate the ability to plan lessons using different instructional approaches to teach mathematical and scientific concepts (e.g., direct instruction, cooperative learning, concept teaching, discovery strategies)
- (7) integrate the teaching of mathematical and scientific knowledge with other areas of the elementary curriculum
- (8) identify resources for integrating computers and related technology in their

- instructional planning
- (9) develop and utilize appropriate instructional media as tools to enhance teaching and learning
- (10) develop appreciation of mathematics and science as useful, exciting, and creative areas of study

b. Topical Outline

(1) Developing a conceptual framework in mathematics and science

Knowledge of content

- (a) Purposes of science and mathematics instruction
- (b) National and state standards
- (c) Research on effective science and mathematics instruction for all learners
- (d) Major topics across the grade levels
- (e) Role of media and technology in science and mathematics instruction

Knowledge of pedagogy

- (a) instructional models and teaching strategies
 - direct instruction
 - cooperative learning
 - inquiry approach
 - concept development
 - experiential learning
 - problem-solving
- (b) appropriate use of media and technology

Knowledge of learners

- (a) developmental levels
- (b) diversity of learners
 - cultural
 - academic
 - linguistic
 - background experiences
 - gender

(2) Applying the Conceptual Framework in Planning for Science and Mathematics

Instruction

Development of goals and objectives

Assessment of learners

Selection of appropriate content

Identification of appropriate procedures for including all students in instruction

Selection and modification of materials

- (a) texts
- (b) trade books
- (c) manipulatives
- (d) media
- (e) technology
- (f) laboratory equipment

Development of theme, unit, and lesson plans

- (a) integrate science and mathematics instruction with other curricular areas

(b) incorporate cognitive, affective and psychomotor domains
Development of appropriate assessment measures

(3) Reflection on Field-based Experiences

Analysis of the school environment

Analysis of individual instructional practices

(a) self

(b) peer

c. Evaluation and Grading of Students

Students will be evaluated through oral, written and performance products such as classroom projects, tests and written curriculum plans. Evaluation of students' performance in the field will be based on students' reflections on and instructor observation of their teaching of lessons in an elementary inclusion classroom. Students will be expected to demonstrate the use of technology to enhance both their learning and teaching.

d. Course evaluations

The course will be evaluated through student evaluations, through systematic Co-Teach program evaluations, and by review of national accrediting agencies such as NCATE, IRA, and CEC.

e. Learning Outcomes Assessment

A video of a twenty minute science or math lesson along with accompanying reflective journal will be included in the student portfolio. The portfolio will be used for student and program assessment.

Catalog Description

Developing and Adapting Instruction in Elementary Classrooms

Prerequisite: Instructional Planning and Collaboration, Instructional Implementation and Collaboration, and Matriculation in Co-Teach program.

Corequisites: Health Education for Elementary School Teachers and Developing and Adapting Assessment for All Learners.

This course is designed to prepare teacher candidates to use a variety of teaching models and strategies to make mathematics and science instruction accessible to all students. Instructional standards developed by NCTM and NSTA will be reviewed. A technology component addressing the use of technology as a tool for teachers and learners will be incorporated. Issues of equity, curriculum integration, collaboration, and reflection will be emphasized in both course and field assignments. The course includes a field assignment in an inclusion classroom.