

Unification of Teacher Preparatory Programs

Mini grant Program to Support Collaborative Efforts
To Promote the Unification of Teacher Preparatory Programs
And to Meet the Needs of Diverse Learners

Proposal Cover Sheet

Name (Primary Contact): Professor Allen P. Cook
Associate Dean
School of Education and Human Resources
University of Bridgeport

Department/Address: Carlson Hall Room 110
Bridgeport, Connecticut 06604

Project Title: Content Area Improvement for Elementary School Teacher
Candidates

If joint proposal, please list additional faculty and departmental affiliations:

Professor Natalia Romalis
Dean Emeritus of Arts and Sciences and Chair of Department of Mathematics

Professor Lamont Thomas (Retired)
Department of History

Professor John Nicholas
Department of Earth Sciences

Professor Nelson Ngoh
Science Education

Professor Richard Harper
Social Studies Education

Please provide a brief (40) word summary of the project and the total amount requested:

We propose a joint project between three members of the Arts and Sciences faculty at the University of Bridgeport (mathematics, science and history) and three members of the School of Education (mathematics education, science education and social studies education) along with three teachers (in mathematics, science and history) from local schools to create content-based materials for elementary teacher candidates; \$10,000 requested.

Signatures

Principle Investigator:

Allen P. Cook

Department Chair:

Allen P. Cook

Dean:

James Helmer

Please use this template as a guide for the completion of the proposal. Each of the following tasks should be addressed. Submit the completed template along with a completed and signed cover page.

Description of activity: What is being proposed? What is the rationale for the activity? Present a brief timeline for the proposed activity. (Two pages text maximum.)

The teacher certification program at the University of Bridgeport is a graduate program. Admission to the certification track program requires each student to have taken undergraduate general educational requirements. The school permits, however, students to enter into the program with deficits in one or two of these general education areas. The most common of these deficits occur in undergraduate mathematics, science, and American History. We propose that in these three areas faculty from the Arts and Sciences work with members of the School of Education and local classroom teachers to develop courses that align liberal arts education content course with pedagogical courses in the elementary teacher preparation program. (The university is not accredited for elementary/special education teacher preparation programs.) In general, we have approximately 50-60 students each year with a deficit in one or more of these areas. These students could then enroll in one or two of the proposed courses.

In addition, one local classroom teacher in each of the areas would help develop the curriculum and co-teach it. He or she will receive one credit hour of teaching remuneration for their work. This stipend would be an in-kind contribution from the university toward the success of the grant. Teacher participants will be determined in cooperation with curriculum directors in Bridgeport and Danbury during Spring 2006. The course proposals would be based on national standards in the corresponding curriculum areas and would integrate technology into all course work and field-based experiences for the teacher candidates.

Activities associated with the grant will take place during Summer 2006. All course curriculum will be designed by September 2006. The actual courses will be taught in the Fall and the Spring semesters. Evaluation of course materials will occur at the end of the Spring 2007.

UTPP Goals Addressed: (Identity the goals of the UTPP program addressed by your proposed activity and specifically how anticipated outcomes of your work align with these goals)

The specific goals of our project are to:

1. Align the content in at least three general education requirements for a liberal arts education with the pedagogical course content in the Elementary/Special Education teacher preparation program within the School of Education.
2. Integrate performance-based teacher competencies across at least three different departments as measured by the NCATE standards of the professional associations of those departments.
3. Integrate effective, research-based teaching methods and practices into co-taught classes between and among faculty in the School of Education, the School of Arts and Sciences and faculty from two local school districts.
4. Integrate technology into all coursework and field-based experiences of students.

Proposed Budget, Rational and Timeline: Please provide an estimate of the funding required to support the proposed activity (Allowable expenses include salary, supplies, honorarium, and travel expenses). Please provide a rationale for the funds requested in each budget category. Also provide a brief timeline for the completion of the proposed activity.

Budget:

Allowable expenses include salary, supplies, honorarium, and travel expenses.

Associate Dean of Education and Dean Emeritus of Arts and Sciences for administration/organization of the program.

Budget Request: \$1,500

Professor of Mathematics and Professor of Mathematics Education.

Budget Request: \$2,500

Professor of Science and Professor of Science Education.

Budget Request: \$2,500

Professor of History and Professor of Social Studies Education.

Budget Request: \$2,500

Timeline:

1. Development of course materials Summer 2006.
2. Teaching of course with student feedback and course evaluations Fall 2006 and Spring 2007.

Rational:

As a graduate program, students desiring admission to the University of Bridgeport in elementary teacher education need to fulfill under graduate prerequisites in undergraduate areas. The School of Education has a policy of allowing students to have deficits in one or two of these areas. Traditionally, course deficits occur in mathematics (pre-calculus or more advanced), science, and American History. We have about 50-60 students each year with a deficit in at least one of these areas. Until now, we have allowed students to make-up these undergraduate requirements by taking any approved course. This grant will allow us to design and offer contact courses uniquely tailored to these prospective teachers. These courses will provide an excellent alternative to the rather open-ended course selection students take to fulfill the elementary education credentialing requirements of the state of Connecticut.

At the University of Bridgeport we have already experimented in creating such courses in mathematics. We have designed various courses based on analysis, algebra, geometry and discrete mathematics. This grant allows us to consolidate our previous work and formalize a standard course offering.

In terms of science and science education, a similar situation occurs at the university. Over the years, various professors have designed a number of courses based on Biology and Earth Science and related to the study of Long Island Sound. This grant will allow us to formalize various aspects of these courses, with an emphasis on science content knowledge for prospective elementary school teachers. Finally, the American History course, which we offer teachers to fulfill their undergraduate requirements has been traditionally based on immigration/American history with an emphasis on cultural diversity. The various reiterations of this course can now be formalized and be developed into a truly excellent content course for teachers in American History with an emphasis on cultural diversity.

One of the most exciting aspects of this grant is our ability to involve local teachers as part of course development. One special education teacher will be hired by the university in the development of all three programs. In addition, one teacher from each of the subject areas involved, will also be hired to help develop and co-teach the programs to our prospective elementary school teacher candidates. **This in-kind contribution from the university allows prospective teachers to benefit from the experience of individuals who share our vision of the importance of content knowledge for elementary classroom instructors.**

Finally, the grant will help develop a further working relationship between members of the faculties of the Arts and Sciences, School of Education, and classroom teachers in

local schools. As an institution, we have a proven track record of successful collaborations among these groups with regards grants, published books and articles, interdepartmental appointments, and professional development seminars.

Allen P. Cook
53 Chestnut Street
Bethel, Connecticut 06801
(203) 778-1107 (H) (203) 576-4206, 4198 (O)

Academic History

Stanford University,
Administration and
Policy Analysis

Columbia University,
Mathematics, M.A.
Harmonic Analysis

Harpur College, B.A.,
Magna cum laude

Goethe Institut, Berlin

Areas of Specialization

Administration, Mathematics
Education, Videotape Analysis,
Economics Education

Real Analysis

Real Analysis

Deutsch als Fremde Sprach Diplom

HONORS AND GRANTS

Content Enrichment for Secondary School Teachers (with Bridgeport City Schools).
Connecticut State Department of Education (2005) \$120,000

Islam Workshops for Middle and Secondary School Teachers , Connecticut State Department
of Education (2003) \$30,000

Connecticut Arts and Humanities Grant (with Cooperative Educational Services) (2002)
\$25,000.

TERC Professional Development Grant with Bridgeport Schools (2001-2003) \$30,000.

ConnCap Project for academic enrichment for middle and secondary school students in areas
of mathematics, technology, science and language arts (1999-2001) \$350,000; (2001-2005)
\$750,000

Eisenhower Funds for Professional Development for projects that foster cooperation between
the Bridgeport Schools and the University of Bridgeport (1998-2000) \$75,000.

Equity in Mathematics Education Leadership Institute, Department of Education in conjunction
with the University of California at Santa Barbara (1999-2000) \$60,000.

Connecticut Commission on the Arts. African Arts and Heritage Celebration (1999) \$10,000.

Stanford University Research Grant to investigate how students use graphs to solve problems in Economics (1994) \$10,000.

National Science Foundation Grant for investigating the use of programmable calculators in fifth and sixth grades (1994) \$30,000.

Post-Doctoral Fellowship, Center of Particle Astrophysics, University of California, Berkeley (1993) \$10,000.

BOOKS, ARTICLES, SYMPOSIUMS AND LECTURES

2003-present

Content Mathematics for Secondary School Teachers: The Problem Solver (with Natalia Romalis). Christopher Gordon Publishers. March 2006.

The Subject Matters: Fractal Geometry and Elementary Teacher Education in Mathematics. AAER Annual Conference, Fall 2004.

Globalization and Local Realization: South Asians and the American Higher Education System (with Matthew Cook). In Educational Theory and Practice, Volume 25, Number 2, 2003 (appeared in Fall 2004).

Understanding Islam in context of Secondary and Middle School Social Studies Curriculums: Teachers' Insights. ASCD Annual Conference, New Orleans (Spring 2003).

The Educational Intern Program: Twenty Years of Success. AAER Annual Conference. Winter 2003.

Consultant for Creation of Curriculum Syllabus in Elementary Mathematics for Bridgeport Schools. Spring 2003.