THE COUNCIL OF INDEPENDENT COLLEGES

TEACHERS FOR THE 21ST CENTURY

Application Deadline: March 13, 2008

The Council of Independent Colleges (CIC) *Teachers for the 21st Century* project is establishing a national faculty development network for college and university faculty members responsible for teacher preparation programs. Teams of faculty members from CIC member institutions are invited to apply for participation in this program.

This program, developed over the past two years in collaboration with faculty members from 19 leadership institutions, facilitates faculty development in the context of specific curriculum or programmatic improvements being undertaken by the institutions. In addition, the program addresses significant constraints of time and money by using information and communication technologies as the principal method of project participation and inter-institutional interaction. This program, supported by Microsoft's U.S. Partners in Learning initiative, provides opportunities for teams of faculty members who prepare future K-12 teachers to share their most effective practices with colleagues from other institutions and to gain access to materials and national experts in specific domains that can be used to improve courses and teacher education programs. CIC seeks up to an additional 100 institutions to join the original 19 leadership institutions. There is no fee to join the project, and there are no costs associated with participation in it.
[The original 19 leadership institutions include Alverno College, Benedictine University, Catawba College, Chatham University, Clarke College, College of Mount St. Joseph, Ferrum College, Gannon University, Lesley University, Manchester College, Marywood University, Mercy College, Mount St. Mary's College, Ottawa University, Saint Leo University, Spring Hill College, St. Bonaventure University, The Sage Colleges, and Wheelock College].

Background: National Need and Independent Colleges and Universities

Schools need to prepare students who can succeed in the 21st century. A significant number of students, however, leave school without graduating; and a growing number of studies indicate that even high school graduates lack the knowledge and abilities required to participate effectively in the 21st century's global, knowledge-based economy. There is also a growing body of evidence that the academic achievements of K-12 students in the United States are not keeping pace with the achievements of their counterparts in other countries.

One good summary of the type of education necessary to ensure individual achievement, economic competitiveness, and civil engagement is *Learning for the 21st Century*, prepared by a consortium of technology businesses and educational organizations—including Microsoft—known as the Partnership for 21st Century Skills. The document highlights, for example, information and communication, thinking and problem-solving, and interpersonal and self-directional abilities as critical learning skills. It emphasizes the importance not only of core subjects such as reading, mathematics, and science but also 21st century content such as global awareness and economic literacy. The publication can be found on the Partnership website at *www.21stcenturyskills.org*.

A critical aspect of improving the quality of K-12 education is providing the kinds of learning experiences for prospective teachers that they will eventually be expected to provide for their K-12 students. That is, teachers will likely teach as they have been taught. Thus teacher preparation programs need to be continually forward-looking in the nature of: the learning experiences they create for their students; the

skills, tools, and content future teachers learn; and the assessment tools administrators and faculty members use to enhance student learning. Through the *Teach 21* program, CIC will make available materials and development opportunities that will enable faculty members in independent college and university teacher preparation programs to strengthen and update their own courses in this way.

Importantly, the *Teach 21* program places this aspiration in a particular sector of American higher education—small to mid-sized, independent colleges and universities. The participation of institutions from this sector is nationally significant because, collectively, the 480 institutions within CIC that have teacher preparation programs graduate 20 percent of the nation's new teachers each year.

Through this program CIC seeks scale—to develop time-and-cost-effective ways to assist large numbers of teacher preparation programs in independent colleges and universities. The needed improvements in American K-12 schools are both immense and immediate, and CIC seeks to develop collaborative approaches that will enable faculty members in a large number of institutions to improve courses and programs in the absence of large grants directly to each institution.

The National Faculty Development Program

The program's design reflects two assumptions. The first is that actual changes—content, pedagogy, tools, and assessments—will need to be made within individual courses or a group of courses. The second working premise is that faculty members who are interested in improving their courses face significant constraints of time and money to achieve change since most independent colleges and universities are not able to provide sufficient resources in the form of released time for conference attendance, consultant expertise, or dollars for materials and commercial technologies. Therefore, the program is designed to provide small teams of faculty members, who are working on specific improvements, with inspiration and practical ideas through collaboration with colleagues who will support them as they make the needed improvements within their own courses and programs.

Over the past 18 months, the leadership institutions designed a program of activities and a means of engaging faculty members at a large number of institutions at no cost. The program is entirely web-based, employing multimedia tools for online seminars, resource sharing, and communication and collaboration.

The *Teachers for the 21st Century* Program will have four components:

- Programmatic Themes
- Webinars and Other Joint Activities
- Institutional Teams Working on Institutional Improvements
- Inter-institutional Sharing

The program will be 16 months in duration—running from March 2008 through July 2009. Though the expectation is that most of the program will occur during the 2008-2009 academic year, teams will be introduced to the program during the current semester and will be able to carry out some planning activities during the summer.

Programmatic Themes

The *Teach 21* program will focus on four specific thematic areas within teacher preparation programs:

1. ePortfolios – Use of ePortfolios to improve student learning, for program evaluation and improvement, and accreditation self-study
2. Science – Incorporating inquiry-based learning into science courses for future teachers
3. Mathematics – Assessing and addressing dispositions of future teachers toward mathematics
4. Examples of effective practice – Use of expert teachers' multimedia narratives of their effective practice to engage preservice teachers in the profession

In addition there will be a series of webinars in which national leaders in undergraduate teacher preparation will provide an overall framework for the entire project.

Institutions that are currently seeking to improve their teacher preparation activities in one or more of these areas are ideal candidates to join the *Teach 21* network. Each of the four themes is described in more detail in the appendix.

Webinars and Other Joint Activities

Within each of these four thematic areas, the *Teach 21* program provides a series of webinars that will provide access to leading thinkers and practitioners, as well as introductions to important materials with the potential for widespread use. Presenters will be drawn both from faculty members of the Teach 21 leadership institutions and from other institutions or organizations that have contributed significant ideas or developed important materials that could be used more widely.

In addition to the webinars within each programmatic theme, several webinars will be applicable broadly across the teacher preparation curriculum, and intended to be of interest to teams in all four areas.

Dates for the initial webinars have been scheduled (see the appendix). This summer the participating teams will help shape the complete program for the 2008-2009 academic year. All webinars will be archived so that they can be accessed and shared after the live event.

Institutional Teams Working on Institutional Improvements

The central element of the *Teach 21* program is the collaboration among campus-based teams of faculty members working toward improving their current teacher preparation courses and program. Thus, each participating institution must establish a team of three to five faculty members interested in focusing on one of the four programmatic theme areas. An institution wanting to work in more than one thematic area may submit applications for more than one team. Team members should be drawn from the education department as well as, when appropriate, from the liberal arts and sciences disciplines in which preservice teachers major. Regular on-campus meetings (perhaps once a month) of the team members will constitute the principal face-to-face activity of the program. Ideally, team members will participate in each webinar together—to encourage shared reflection on what is learned from them; when that is not possible, archived versions of the webinars can be accessed for team discussion.

Each team will be expected to designate one of its members as the team leader who will participate in periodic online planning and evaluation meetings and complete short online questionnaires regarding the activities in which their team is engaged.

Inter-institutional Sharing

Each participating team will be expected to share brief descriptions of its activities with other participating teams on a project website. In addition, team members will be asked to complete a brief evaluation of actual improvements made in their institution's courses or program.

Applications

Due Date: Monday, March 13, 2008

Please use the link to the online survey below to provide the following application information:

a. *Institution*: Provide the name and state of the institution.
b. *Programmatic Theme*: Identify in which of the four *Teach 21* programmatic themes the team will participate.
c. *Proposed Institutional Improvement*: Briefly describe up to 5 improvements in your institution's teacher preparation program and/or courses that your team intends to make through participation in the Teach 21 project.
d. *Contact Person*: Provide the name, title, and contact information for the individual designated as the team leader.
e. *Team Members*: Names, departments, titles, and email addresses for team members

Please submit your application at:
http://www.surveymonkey.com/s.aspx?sm=ARs87j0LwdAyR3cdu4U7Ow_3d_3d

Selection Criteria. Because one of the principal aspirations of the *Teach 21* program is to establish a faculty development network that can scale—and help a large number of institutions simultaneously—CIC expects to be able to accept up to 100 institutions into this program. If it becomes necessary to limit participation in a particular thematic area, CIC will select a group of institutions that represents a broad representative range of proposed improvements and institutional types.

Notification. Applicants will be notified whether they will be one of the participating institutions by March 17, 2008.

Questions. Questions about this program and the application procedure and content should be directed to Edward Barboni, CIC Senior Advisor, at (908) 752-8274 or *ebarboni@cic.nche.edu*.

Appendix

The Teachers for the 21st Century project is comprised of 5 series of webinars and related activities. The overall program for the Teach 21 project will be framed by a series of webinars intended for all participating teams. The remaining webinar series are associated with specific thematic areas which are described below.

Framing the Project: We will initiate the project with a webinar conducted by Allyson Knox, Academic Program Manager, US Partners in Learning, Microsoft Corporation. Our Teach 21 project is part of the Mid-Tier program within the Partners in Learning (PiL) program which Allyson directs. During this webinar Allyson will describe PiL, which is a major international initiative which Microsoft is sponsoring to improve K-12 teaching and learning throughout the world; how the US PiL contributes to this international effort; and the specifics of the Mid-Tier program and how our Teach 21 project contributes to it. As you will discover in this webinar, our Teach 21 project is the only Mid-Tier project focused upon improving teacher preparation; the remainder are all focused directly on K-12 teaching and learning.

Allyson will also focus on Microsoft's major interest in discovering ways to scale innovative programs and the importance of the role she sees our expanded Teach 21 project playing to spread 21st century teaching and learning as widely as possible throughout the country.

Subsequent "framing" webinars will be conducted periodically between April 2008 and May 2009. These will feature national figures on a variety of topics that should be of interest to all participating teams. The following past contributors indicate the diversity of this program.

Dr. John Bransford, University of Washington, James W. Mifflin University Professor and Professor of Education. Dr. Bransford is an internationally renowned scholar in cognition and technology who shared the practical implications of research in these areas for teacher preparation.

Dr. Arthur Levine, President, Woodrow Wilson National Fellowship Foundation. He engaged us in a discussion of *Educating School Teachers*, a recent report authored by Dr. Levine from the Education Schools Project, an independent initiative supported by the Annenberg, Ford, Ewing Marion Kauffman, and Wallace Foundations.

Dr. Ann Lieberman, Senior Scholar at The Carnegie Foundation for the Advancement of Teaching, and Dr. Désirée Pointer Mace, then Research Scholar at the Foundation and now a faculty member at Alverno, one of our 19 leadership schools. They shared how the resources at the InsideTeaching web site may be used to engage future teacher in the profession.

Dr. Sasha Barab, Associate Professor in Learning Sciences, IST and Cognitive Science, the Barbara Jacobs Chair of Education and Technology, and Associate Director of the Center for Research on Learning and Technology at Indiana University. He provided us with a guided tour through *Quest Atlantis*, a standards-based, 3 dimensional, multi-user gaming environment which engages middle school students in 21st century learning.

The program will also feature webinars conducted by participating member institutions that would be of interest to all project participants. Last year included a webinar conducted by Alverno College on the effective use of ePortfolios.

We look forward to another exciting and diverse program of webinars over the coming months.

Schedule for the webinar series:
The Allyson Knox webinar will take place on **Thursday, March 28 at 3:30 pm Eastern** time.

Presenters, dates, and times of additional webinars in this series will be announced throughout April 2008 through April 2009.

THEMATIC AREA WEBINARS

Thematic Area #1: *ePortfolios for Student Learning, Program Evaluation, and Self-Study*

A considerable number of teacher preparation programs are adopting ePortfolios to improve student learning, program evaluation, and to meet accrediting requirements. Institutional teams interested in developing a new ePortfolio system or improving their current system should apply for this thematic area.

Program

The webinar series for this program will start with the "why" question. Why ask students to create ePortfolios in the first place? What are the benefits from the learner's point of view? From the institution's point of view? Where is the best place to start? Does it make a difference if one starts from the learner's or the institution's point of view?

The second webinar will then address what ePortfolio tools are available and how they differ depending upon their primary use (for example assessment management for program evaluation and accreditation self-study versus enhancing individual student learning through reflection). The discussion will include an overview of commercial packages and commonly available tools. In addition we will discuss newly emerging Web 2.0 tools such as Google Apps.

The third webinar will explore the frequently unexamined question of how undergraduate students' use of ePortfolios translates into their use of ePortfolio tools with their K-12 learners once they begin teaching. What is the role of ePortfolios in K-12? What tools can they expect to find in K-12 teaching environments? What is the impact of NCLB on the use of ePortfolios in K-12?

The topics for subsequent webinars will be determined by the emerging needs of the group

Schedule for the webinar series:
Note that all webinars will be scheduled in the afternoon Eastern time.

April 18, 2008 – Examining the many reasons for using ePortfolios
May 12, 2008 – The tools available for creating and using ePortfolios
October 2008 – Date to be determined – Using ePortfolios in K-12
Dates and themes of subsequent webinars will be determined by participants.

Facilitator

Dr. Helen Barrett recently retired from the College of Education at the University of Alaska, Anchorage. She is now a consultant as well as a Research Associate with the Center for Advanced Technology in Education (CATE), part of the College of Education at the University of Oregon. She is an internationally renowned expert in the use of ePortfolios to improve student learning as well as for program improvement and accreditation self-study. Her website *http://electronicportfolios.org/*, which has an incredibly rich set of resources for those interested in all aspects of ePortfolios, has proven to be useful both for those just beginning to research the use of ePortfolios and those experienced in their use. She has run several very successful workshops for CIC faculty members on these topics over the years.

Thematic Area #2: ***Inquiry Learning in the Sciences for Future Elementary School Teachers***

Institutional teams seeking to increase the abilities of prospective elementary teachers to encourage inquiry-based learning in the sciences in the K-12 classroom should apply for this thematic area.

Program

The first webinar in this program will be a guided exploration of the perplexing array of existing resources that faculty members may use with future elementary school teachers so they may learn science in ways that are consistent with how they will be expected to teach science to elementary school students. This webinar will be a practical guide to finding the needles in the haystack of too many resources to wade through which is typically the primary barrier faculty members face when attempting to improve their courses with resources developed by others. Subsequent webinars will focus on the actual use of these resources and participants' resources to enhance learning in science courses future elementary teachers take. Topics for webinars beyond the first three will be determined by the participants.

The Shodor Education Foundation has developed a framework to identify the kinds of questions students need to address when engaged in inquiry-based learning in the sciences – whether the students are preservice teachers in the sciences or the K-12 students they will eventually engage in their classrooms. These include:

> What can I observe? What is observable directly without "help?" What is observable directly with "help?" Is what I observe changed by the "help?" Am I using the "help" in such a way that it is "helpful?" What is observable indirectly (by inference or deduction)? Are my observations: accurately recorded? Honestly reported?
>
> What can I learn from these observations? What can I conclude based on observations? What can I conclude based on inferences from observations? What can I say that is consistent with my observations?
>
> How sure am I that I am right? If I changed (repeated) my method of observation, would it change what I: observe? infer? conclude? Is what I have observed consistent with what others have observed? Is what I have concluded consistent with what others have concluded?

The resources explored in the first webinar and the strategies for using these and your own resources in subsequent webinars will be focused on enabling students to ask an answer these questions.

Schedule for the webinar series:
Note that all webinars will be scheduled in the afternoon Eastern time.

April 8, 2008 – Discovering useful resources for promoting inquiry learning in the sciences
May 20, 2008 – Using resources to enhance inquiry-based learning in science courses future elementary teachers take
October, 2008, Date TBD – Continuation of using resources to enhance inquiry-based learning in science courses future elementary teachers take
Dates and themes of subsequent webinars will be determined by participants.

Facilitator:

Dr. Robert Panoff is an award winning computational scientist who has an avocation for the development of future teachers and has an uncanny ability to make the complexities of science understandable to adults and to children. In addition to his significant scientific accomplishments, he is founder and executive director of The Shodor Education Foundation (*www.shodor.org*) which is dedicated to the advancement

of science and math education in the US. Dr. Panoff has also been deeply involved in the National Science Digital Library (*www.nsdl.org*). Dr. Panoff has also conducted several successful workshops for CIC faculty in the past.

Thematic Area #3: Mathematical Dispositions of Future Elementary School Teachers

Institutional teams interested in assessing the dispositions of future elementary school teachers toward mathematics, as a part of the process of enhancing their abilities as teachers, should apply for this thematic area. Participating teams will be joining a collaborative research project.

Program

It is common knowledge that future elementary school teachers often have negative dispositions towards mathematics. Yet they help shape the dispositions of children toward mathematics when they are youngsters. Given the importance of quantitative reasoning skills to our nation's participation in the global economy of the 21st century, several of the 19 Teach 21 leadership institutions focused their attention on this issue.

Deborah Lawrence, Associate Professor of Mathematics and Computer Science at The Sage Colleges, has successfully used a questionnaire to assess her students' dispositions towards mathematics and has gained approval from the questionnaire's developer to use it across CIC member institutions. The questionnaire was developed and psychometrically tested by CS Consultants, LLC (*www.evaluationandstatistics.com* To view a copy of the questionnaire, click on View SATS and replace the word "statistics" with "mathematics" in it). The planning team's goal is to recruit CIC member institutions to administer the pre-test and post-test versions of the questionnaire during 2008-09 academic year in mathematics courses in which it is hoped students who may have negative dispositions towards mathematics would improve. It is hoped that by combining data from the questionnaires with characteristics of the students and the courses in which they are enrolled will lead to insights into what kinds of interventions work in improving the dispositions of future elementary school teachers toward mathematics.

A version of the questionnaire will be made available online for data collection. The pre- and post-test versions used in the 2008-09 academic year will require gathering identifying information so pre- and post-test data may be linked to determine changes over time. However confidentiality of student responses will be assured and only the linked responses will be provided to the participating institutions with identifying information removed. Since the questionnaires will involve the use of human subjects, campus Institutional Review Boards (IRB) will need to approve their use, a step which is built into the project plan provided below. Participants will receive individual students' responses (without identifying information) as well as aggregate data from all participating institutions. The program goal is to gain significant insight into this vexing problem and to begin to identify effective approaches to address it.

Schedule of activities
Note that all webinars will be scheduled in the afternoon Eastern time.

April 10, 2008 – Planning webinar conducted by project facilitators (see below)
April-May 2008 – Review of questionnaires and submission for approval for use to Institutional Review Boards
May 13, 2008 – Planning webinar for 2008-09 academic year
Summer, 2008 – Campus team planning for administration of the pre-test questionnaire
September, 2008 - Administration of pre-test version of questionnaire in courses where it is hoped dispositions toward mathematics will improve
October – November, 2008 – Analysis of pre-test results
December 4, 2008 – Webinar to discuss pre-test results and to plan post-test administration

January-February, 2009 – Administration of the post-test version of the questionnaire to the same student who took the pre-test version
March-April, 2009 – Linking of post-test to pre-test results and analysis of the data
May 5, 2009 – Webinar to discuss results of pre-test and post-test results

Facilitators

Dr. Edward Barboni (CIC Senior Advisor and project director), Dr. Eileen Clark (Associate Professor of Computer Science at Benedictine University), Dr. Deborah Lawrence (Associate Professor of Mathematics and Computer Science at The Sage Colleges), and Dr. James Pelech (Assistant Professor of Education at Benedictine University). Dr. Barboni will serve as the primary research analyst on the project.

Thematic Area #4: *Learning from Records of Practice*

The Carnegie Foundation for the Advancement of Teaching has developed the Inside Teaching website (*http://www.insideteaching.org*), a "living archive" of rich multimedia records of instructional practice. Examples from both K-12 and teacher education classrooms are included. Materials include lesson plans, assignments, samples of actual student work, and videos of teachers working with students. Institutional teams interested in beginning or expanding their use of these materials should apply for this thematic area.

Program

This program will consist of two phases. In phase one (April-June 2008), participating faculty members and institutions will learn to "read" multimedia representations of teaching (MRTs), and to think strategically about integrating such resources into pre-service teacher education courses. The first webinar of phase one will present several K-12 practitioners' work on various "foundational ideas" in teaching and learning as well as share records of their use in various teacher education settings, and help participants revise their syllabi to encompass the multimedia representations of teaching. Between the first and second webinar, faculty members will research MRTs of interest to them, and revise their assignments and syllabi to incorporate sites that relate to their course content. The second webinar will begin with a facilitated discussion around what it takes to move online representations of teaching and learning from the margin to the center in teacher preparation, and then introduce faculty participants to the KEEP toolkit (*www.cfkeep.org*), a powerful multimedia ePortfolio tool that is available for free from the Carnegie Foundation for the Advancement of Teaching .

Phase two of the webinar series (August 2008-June 2009) will allow faculty members to use these records in courses, and to contribute to online discussion forums on their successes and challenges. They will incrementally build their own multimedia record of teaching practice, from the artifact level to the analysis and representation level. By the end of the series, participating faculty members will have learned to read, teach, and author multimedia representations of teaching and learning.

Schedule for the webinar series:
Note that all webinars will be scheduled in the afternoon Eastern time.

April 24, 2008 – Introduction to the Webinar Series
June 4, 2008 – Sharing revised syllabi and assignments; learning to use the KEEP toolkit
August 13, 2008 – Preparing to teach using MRTs; anticipating technological challenges
October 29, 2008 – Sharing artifacts and evidence of student work from initial implementation
December 17, 2008 – Reflecting on initial attempts; putting artifacts into analytical frames

February 11, 2009 – Second attempt; elaborating what it means to teach using MRTs; making assertions about student outcomes
April 22, 2009 – Sharing draft quality KEEP sites from participant settings
June 24, 2009 – Gallery of CIC participant websites showcasing use of MRTs in teacher education launches; final reflections from participants on the process

Facilitator:

Dr. Desiree H. Pointer Mace (Assistant Professor of Education at Alverno College), is a national leader in the development of online, networked representations of teaching, teacher learning, and professional development. (See http://faculty.alverno.edu/pointedh for her personal web site.) She is a founding co-editor of *Inside Teaching* at the Carnegie Foundation for the Advancement of Teaching. She has extensive experience with English language learning populations, beginning with her own work as a Spanish bilingual elementary teacher in the San Francisco Bay Area. At Alverno College, Dr. Mace contributes to the College's existing work with online records of learning and teaching, and integrates multimedia records of teaching practice into all of her courses in education.