



CALL TO PARTICIPATE

Tennessee Board of Regents

Developmental Studies Redesign Initiative

The Tennessee Board of Regents (TBR) invites participation in the TBR Developmental Studies (DSP) initiative to redesign its remedial and developmental math and English curriculum using technology-supported active-learning strategies. The goal is to achieve improvements in learning outcomes as well as reductions in instructional costs. The initiative expects to award a total of \$240,000 in grants to participating institutions to support their redesign efforts.

The goals of the initiative are to:

- Increase the quality of learning and assessment that leverage new and emerging technologies against the best of traditional classroom instruction.
- Increase remedial and developmental course completion rates and placement rates into college-level coursework.
- Demonstrate improvements in student learning outcomes through rigorous assessment.
- Streamline the amount of time that students--traditional and non-traditional aged--devote to remedial and/or developmental studies, thus creating significant costs savings for individual students.
- Create significant costs savings for institutions that can be reallocated to sustain the redesign of developmental studies and to fund future operations.
- Expand access to and success in postsecondary education for disadvantaged minority and low-SES students by removing barriers to progress.
- Develop models that are scalable for delivery in diverse settings including 12th grade dual enrollment, mini-term environments such as summer sessions, online delivery, and other modular environments.
- Develop the internal capacity of TBR faculty and staff to continue the redesign process.

An orientation workshop open to all interested faculty and administrators will be held on February 2, 2007 from 9:00 am – 3:00 pm in the University Center Ballroom A/B at Austin Peay State University. See <http://www.thencat.org/States/TBR.htm> for more information. This orientation will feature Dr. Carol A. Twigg, President and CEO of the National Center for Academic Transformation (NCAT) and architect of several successful large-scale national course redesign programs upon which the TBR initiative will be modeled. The purpose of this session is to provide all interested members of the TBR community the opportunity to learn about the initiative and why you may want to participate.

BACKGROUND

A 2005 TBR study revealed that level of academic preparation continues to be a major barrier to successful matriculation among first-time freshmen (regardless of age at time of entry) in Tennessee's public universities and community colleges. A large percentage of recent high school graduates fail to meet college readiness assessments in writing, reading and mathematics. In fall 2005, 74% of recent high school graduates enrolled at TBR two-year institutions were required to take a remedial or developmental studies course. At TBR four-year universities, the level of remedial and developmental requirement was over 40%. In addition, 50% of non-traditional aged students returning to education after long periods away from the classroom are required to take remedial or developmental courses. These large numbers are significantly impacting initial enrollment decisions, fall-to-fall retention and persistence to degree at TBR institutions.

Students lacking in the competencies and skills required to enroll in college-level courses face significant challenges persisting to a degree. Completing a series of non-credit courses to overcome deficiencies involves significant time and money for students, slowing academic progress and sometimes derailing the momentum that comes with initial enrollment in postsecondary education.

In the TBR system, approximately \$25 million is spent on remedial and developmental instruction annually, the cost of which is split 50/50 between state appropriations and student tuition revenues. Those tuition costs can add quickly to students' overall debt. In addition, none of the tuition payments and classroom effort results in credit toward a degree. Reductions of overall costs and time to completion will be a primary goal of the initiative and will represent future permanent cost savings to students and to institutions.

Because access remains a major commitment of the TBR system, there will be increasing demands for remediation efforts as Tennessee's recent and projected population growth is exacerbated by shifting demographics. If Tennessee is to remain competitive, students who are unprepared cannot be casualties of the leaks in the education and workforce training system. Recent TBR policy discussions surrounding the challenges of educational preparation, participation and persistence have placed a great deal of emphasis upon "why" these dynamics exist and "what" the system can do to make a significant difference in the transition to post-secondary education and in students' success once enrolled.

A New Approach

NCAT's course redesign methodology is an exciting innovation in higher education with the expressed goal of increasing student success and doing so cost effectively. It has become a proven and widely practiced strategy for improving student outcomes and increasing efficiencies in postsecondary education.

Since April 1999, NCAT has managed a number of programs in course redesign with support from the Pew Charitable Trusts and the Fund for the Improvement of Postsecondary Education. In the seminal Program in Course Redesign (PCR), 30 institutions were selected from hundreds of applicants in a national competition to participate. Each institution redesigned one large enrollment course to increase quality while simultaneously reducing instructional costs through the use of technology. These

30 institutions represent research universities, comprehensive universities, private colleges, and community colleges in all regions of the United States.

The first redesign projects focused on large enrollment, introductory courses. As an initial target, these courses have the potential of generating large cost savings and having significant impact on student success since successful completion of these courses is key to student progress toward a degree. High failure rates in these courses--typically 15% at research universities, 30-40% at comprehensives, and 50-60% at community colleges--can lead to significant drop-out rates between the first and second years of enrollment.

NCAT required each of the 30 institutions participating in the PCR to conduct a rigorous evaluation focused on learning outcomes as measured by student performance and achievement. National assessment experts provided consultation and oversight regarding the assessment of learning outcomes to maximize validity and reliability.

The findings of the PCR show:

- 25 of the 30 redesigns improved learning; the remaining 5 redesigns showed learning outcomes equivalent to traditional formats;
- Of the 24 projects that measured retention, 18 resulted in reductions in drop-failure-withdrawal (DFW) rates; and,
- All 30 projects reduced the cost of instruction – by 37% on average, with a range of 15% to 77%.

Other outcomes achieved included improved student attitudes toward the subject matter and increased student satisfaction with the mode of instruction.

While each of the 30 institutions within the PCR had complete freedom as to how they would redesign their course to increase quality and reduce costs, a number of common elements emerged:

1. *Whole course redesign.* In each case, the whole course--rather than a single class or section--is redesigned. Faculty members begin by analyzing the time that each person involved in the course spends on each kind of activity. This analysis often reveals duplication of effort. By sharing responsibility for both course development and course delivery, faculty members save substantial time and achieve greater course consistency.

2. *Active learning.* All of the redesign projects make the teaching-learning enterprise significantly more active and learner-centered. Lectures are replaced with a variety of learning resources that move students from a passive, note-taking role to active learning. As one math professor put it, "Students learn math by doing math, not by listening to someone talk about doing math."

3. *Computer-based learning resources.* Instructional software and other Web-based learning resources assume an important role in engaging students with course content. Resources include tutorials, exercises and low-stakes quizzes that provide frequent practice, feedback, and reinforcement of course concepts.

4. *Mastery learning.* The redesign projects offer students more flexibility, but the redesigned courses are not self-paced. Student pace and progress are organized by the

need to master specific learning objectives--often in a modular format, according to scheduled milestones for completion--rather than by class meeting times.

5. *On-demand help.* An expanded support system enables students to receive assistance from a variety of people. Helping students feel that they are a part of a learning community is critical to persistence, learning and satisfaction. Many projects replace lecture time with individual and small-group activities that take meet in computer labs--staffed by faculty, graduate teaching assistants (GTAs) and/or peer tutors--or online, thus providing students more one-on-one assistance.

6. *Alternative staffing.* Various instructional personnel--in addition to highly trained, expert faculty--constitute the student's support system. Not all tasks associated with a course require a faculty member's time. By replacing expensive labor (faculty and graduate students) with relatively inexpensive labor (undergraduate peer mentors and course assistants) where appropriate, the projects increase the number of hours during which students can access help and free faculty to concentrate on academic rather than logistical tasks.

From the initial 30 projects, NCAT has identified five different models for applying these elements. The five models represent different points on the continuum from a fully face-to-face course to a fully online course. NCAT has also established a number of proven approaches to assessing student learning as well as a variety of strategies to overcome potential implementation obstacles.

What does cost savings mean in practice?

It is important to understand the context for reducing costs. In the past cost reduction in higher education has meant loss of jobs, but that's not the NCAT approach. In all 30 PCR projects, the cost savings achieved through the redesigned courses remained in the department that generated them, and the savings achieved were used for instructional purposes. NCAT thinks of cost savings as a reallocation of resources that allows faculty and their institutions to achieve their "wish lists"--what they would like to do if they had additional resources.

Institutional participants have used cost savings in the following ways:

- offering additional or new courses that previously could not be offered;
- satisfying unmet student demand by serving more students on the same resource base;
- breaking up "academic bottlenecks"—courses that delay forward progress of students within a subject area or program because they are oversubscribed
- increasing faculty release time for research, renewal or additional course development; and,
- combinations of these.

TBR will follow the same approach seeking cost savings through efficiencies that will free up resources for program and/or institutional priorities. Further information about NCAT, the PCR results and other NCAT course redesign programs are available at www.theNCAT.org.

THE TBR DEVELOPMENTAL STUDIES REDESIGN INITIATIVE

Over the next three years, the TBR, in partnership with NCAT, will implement a major statewide DSP Redesign Initiative that will aggressively reform the Remedial and Developmental Studies curriculum, teaching and learning methods, and assessment strategies. It will build on the successful models and lessons learned from the national PCR to create a course redesign program within the TBR focused on remedial and developmental courses. All six TBR universities and thirteen community colleges will have the opportunity to be involved in a comprehensive reform of remedial, developmental, and freshmen-level math and English core courses. This project will seek new delivery structures that streamline course delivery, leverage new learning technologies, increase the quality of learning, and deliver targeted academic support to students struggling to make progress. Specifically, campuses will be invited to redesign a course sequence, from the basic course through the first-year credit-bearing course, in mathematics, reading, writing or English (combined reading and writing.) The TBR initiative will engage with NCAT to support an initial course redesign project, which will enable us to develop internal capacity to support this process on an ongoing basis throughout the system.

The DSP Redesign Initiative will broaden access and create a more affordable system of higher education for students by developing and implementing a more efficient delivery and assessment system for remedial and developmental education. An improved system will increase the completion rate for students in remedial education, reduce the amount of time that students spend in remedial and developmental education courses and decrease the amount of fiscal resources that students dedicate to remedial and developmental education.

Modularization: A Key Strategy

Currently, the TBR operates a system of remedial and developmental studies that dates back to the early 1980's, which is a system of courses taught primarily in traditional classroom settings in a 16-week format. Weaker students may be required to complete up to three full semesters of coursework prior to advancing into regular college-level courses. Further, the current delivery-strategy for courses only offers a gradation of "basic remedial," "basic developmental," and "intermediate developmental" and does not afford an opportunity for students to quickly get up to performance level in one stage so that they can move onto the next stage sooner. Restated, even if someone is marginally below the standard for freshman-level College Algebra, they are still placed into a 16-week course in Intermediate Developmental Algebra that requires them to sit through the full course to satisfy one or two limited or missing competencies.

The goal of this initiative is to redesign and reform this curriculum to better leverage learning technologies and provide for efficiencies--for both the student and the institution--in meeting these remedial requirements. The modularization of the curriculum will be a key strategy. The development of better placement systems combined with shorter, more tailored remedial education modules will enable students to save time and money by only enrolling in the remedial and developmental modules that address their deficiencies.

TBR Developmental Studies Redesign Task Force

During the course of the project, the TBR will work with an internal task force to 1) collect and review data about the current state of its remedial and developmental curriculum, with an emphasis on ascertaining levels of student success and costs for both institutions and students; 2) align curricular expectations from early high school through the first-year college-level course in math and English, with an emphasis on placement and outcomes; and 3) develop content expectations for modularizing this curriculum such that students can be assessed and placed appropriately depending on their level of achievement with the goal of streamlining the ways in which diverse students move through that curriculum.

As the TBR works with the task force to establish a consistent conceptual framework, NCAT will simultaneously work with TBR institutions to redesign the way in which they offer their current curricula with an emphasis on modularization. Institutions will participate in this redesign program with a commitment to adapting their redesigns to the realigned curriculum that emerges from the work of the task force.

TO LEARN MORE ABOUT THE PROGRAM

To learn more about this program, plan to participate in the initial orientation session to be held on February 2, 2007, from 9:00 am – 3:00 pm in the University Center Ballroom A/B at Austin Peay State University. Dr. Carol A. Twigg, NCAT's president and CEO, and Dr. Carolyn Jarmon, NCAT's Senior Associate, will provide an overview of the successful course redesign methodology used in the PCR and the results it achieved.

The goal of this workshop is for participants to acquire a solid understanding of what is needed to implement a good redesign. Through presentations, case studies, and group work, participants will learn the basic planning steps as well as how to adapt NCAT's redesign methodology to the needs of their particular institution.

Workshop topics will include:

- *Institutional and Course Readiness.* Includes a self-assessment of institutional readiness and a discussion of how to choose appropriate courses for redesign.
- *Planning for Assessment.* Provides guidance about how to assess the impact of course redesign on student learning.
- *Planning for Course Redesign.* Provides an overview of the Center's Course Planning Tool that facilitates the quality and cost planning tasks associated with redesign.
- *Developing a Cost Savings Plan.* Discusses how resources can be saved through redesign and what can be done with the savings.
- *Case studies in redesign.* Engages participants in an interactive application of course redesign models to institutional cases.

The outcome of the workshop will be that participants will learn that there are many ways to redesign a course to achieve quality improvements and cost saving and that what can be achieved is only limited by one's creativity.

Participants will be expected to have completed the following assigned reading about course redesign prior to the workshop:

- [Improving Learning and Reducing Costs: New Models for Online Learning](#)
An *Educause Review* article by Carol A. Twigg that includes a full description of five course redesign models with examples.
- [Five Principles of Successful Course Redesign](#)
A summary of the redesign techniques that are essential to improving student learning while reducing instructional costs.

Who should attend?

All institutions interested in submitting a grant proposal for this initiative must attend this workshop and a follow-up workshop scheduled for April 13, 2007. However, participants who attend the workshops are not required to submit a proposal.

We recommend that each institution select representatives from its remedial and developmental courses that might be interested in participating in the program—i.e., we think it would be a good idea not to decide which course to redesign at this early stage but rather make that decision after the orientation workshop. Participants may be faculty, professional staff and/or campus administrators. The workshop will help each institution decide which course sequence is the most “ready” to be redesigned.

For more information

For more information about NCAT see www.theNCAT.org.

You may also contact Houston Davis, Associate Vice Chancellor for Academic Affairs at 615-366-3975/houston.davis@tbr.edu or Treva Berryman, Associate Vice Chancellor for Academic Affairs, at 615-366-4442/treva.berryman@tbr.edu for more information about the workshop or the program in general.