To facilitate reaching the strategic goals of the USM Carnegie Award Course Redesign Program Phase 2 (CR2), staff from USM will coordinate activities to support three cohort groups of institutional faculty moving through the redesign process. It is anticipated that a total of 20 – 30 full courses will be involved in Carnegie Award CR2, with the program startup in Summer 2010, targeting the first cohort’s pilot for 10 courses for Fall 2011 and their full implementation by Spring 2012. The cohorts will run on a yearly cycle, with additional courses added each of the next two years. The second and third year cohorts may change in size depending on available funding. The following outlines the process for CR2:

**COHORT 1: Target – Pilot Fall 2011/Full implementation Spring 2012**

**10 Course Redesigns**

1. In order to properly introduce both the program and its overall goals, USM staff will meet face-to-face on individual campuses with the Provost. Provosts will be urged to invite Deans and/or Department Chairs in addition to faculty from the campus who have been involved in CR1. Goal of this meeting will be to generate interest by academic management in the program, disseminate information on process and answer questions on overall program. **Timeline: Late Summer to early Fall 2010**

2. USM will create a web presence for the program with details of the process, links to resources, contact identification for internal program leaders and evangelists. **Timeline: Summer to early Fall 2010**

3. A heavily advertised workshop will be offered to interested faculty/Chairs/Deans providing fundamentals on Course Redesign using NCAT approaches, with participation by experienced USM faculty and others. Goal will be to present enough information to allow participating faculty to create a proposal for a course redesign. **Timeline: October 7 and 8, 2010**

4. Interested faculty will prepare and submit to USM a short version course redesign proposal, outlining the course involved, the problem that will be addressed, the approach that will be taken and the outcomes anticipated. An estimated cost for a redesign project will also be requested. These proposals will form the basis for the competitive evaluation of redesign submissions. **Timeline: December 2010**

5. Based on short proposals, the evaluation team will make a tentative award to those proposals viewed as consistent with the overall goals of CR2. **Timeline: late December 2010**
6. Faculty whose proposals have been accepted will be invited to a more in-depth workshop geared toward assisting faculty in completing a fully developed plan. **Timeline: Mid-January 2011**

7. Faculty will develop their plans based on format and guidance received at the January workshop and submit the full plan for their course redesign. **Timeline: Spring Break 2011**

8. All awards will be confirmed based on the final plan submission. Some revisions may be necessary to the original short plans. **Timeline: April 2011**

9. Redesign implementation will occur over the **summer of 2011**

10. Course pilots will be delivered for **Fall 2011**

11. A third workshop in series will involve sharing of progress on pilot and a mid course review. **Timeline: January 2012**

12. Full implementation for all redesigned courses ready for **Spring 2012**

13. A final workshop will be offered to include analysis of issues, recording of experiences, guidance on assessment, and recruiting the next set of evangelists to work with the next Cohort. **Timeline: March 2012**

**COHORT 2: Target – Pilot Fall 2012/Full Implementation Spring 2013**

5 or more Additional Course Redesigns

1. The Cohort 2 cycle will start without the face-to-face meetings needed at the start of the first Cohort. The program will begin with reminders to the Provost of the start of the second cycle and requests to pass that information on to Chairs and Deans.

2. The remainder of the program will be identical to Cohort 1 with only the milestone dates adjusted to the new cycle

3. A review of the disciplines covered in Cohort 1 will be conducted to determine whether the evaluation team should focus the solicitation of new toward specific disciplines in order to balance the program’s awards.

4. The total number of course redesign awards will be dependent of available funding but no less than 5 will be offered in this cycle

**COHORT 3: Target- Pilot Fall 2013/Full Implementation Spring 2014**

5 or more Additional Course Redesigns

1. The third cycle will be identical to Cohort 2 with the milestone dates adjusted

2. The number of Course Redesigns may be increased if funding is available

3. During this cycle, plans will be made to transition to program to a self sustaining institutionally based approach
CALL TO PARTICIPATE
University System of Maryland
Carnegie Course Redesign Initiative
August 2010

The University System of Maryland (USM) invites participation in the second phase of a system-wide initiative to redesign large-enrollment, multi-section courses using technology-supported active learning strategies. Its mission is to achieve improvements in learning outcomes as well as reductions in instructional costs. The first phase of this initiative took place from 2006-2009 during which 10 courses were redesigned with significant successes. Based on the success of that first phase, USM, through funding from the Carnegie Foundation and other sources, will expand support for additional course redesigns over the next four years. USM will award, through a competitive process, up to $20,000 per course with a required institutional match that will yield up to $40,000 to cover costs associated with each redesign.

The goals of the Initiative are to simultaneously

- Adopt new ways to improve student learning outcomes
- Demonstrate these improvements through rigorous assessment
- Reduce institutional costs
- Enhance the faculty teaching experience and
- Support the internal capacity of USM faculty and staff to continue the redesign process

Two identical orientation workshops will be held on October 7 and October 8 at the UMBC Technology Center with the purpose of providing interested members of the university community the opportunity to learn about the Initiative and why you may want to participate. The orientation workshops are open to all faculty and staff who are considering a course-wide redesign strategy and wish to seek support from the USM Carnegie Course Redesign Initiative.

BACKGROUND

Public higher education in Maryland, as throughout the nation, continues to be challenged by the need to increase access, to improve the quality of student learning, and to control or reduce rising costs. These issues are, of course, inter-related. The solutions to these challenges appear to be inter-related as well. Historically, improving quality or increasing access has meant increasing costs, while reducing costs has generally meant reducing both quality and/or access. To sustain its vitality while serving...
a growing and increasingly diverse student body, higher education must find a way to resolve these familiar trade-offs among quality, cost and access.

To address these challenges, USM and other institutions nationwide, have adopted techniques to redesign courses based on principles established and validated by the National Center for Academic Transformation (NCAT – www.thencat.org). USM, as a system, began an initiative in 2006 to develop course redesigns that used one or more of five approaches recommended by NCAT that change the nature of student and faculty interaction in large enrollment, multi-section courses that had been taught in traditional lecture format. These courses often had multiple academic problems including high failure (D, F, W) rates, student dissatisfaction, and high cost per student. They were most often core curricular or departmental “gateway” courses, lacked mechanisms to encourage student and faculty interactivity, were unresponsive to individual learning styles and had no strategies for efficient and effective cost management.

The results of the 2006-9 USM initiative tended to mirror the national results which NCAT identified based on its own program. Consistent with USM’s approach, NCAT’s 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. Studies have shown that undergraduate enrollments in the United States are highly concentrated in introductory courses. On average, nationally, at the baccalaureate level, the 25 largest courses generate about 35 percent of student enrollment. In addition, successful completion of these courses is key to student progress toward a degree. High failure rates in these courses--typically 15% at research universities and 30-40% at comprehensives -- can lead to significant drop-out rates between the first and second years of enrollment.

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

There are now nearly 200 courses nationwide that have been redesigned under the NCAT approach. Studies indicate:

- Improved learning in most courses. In those courses where improved learning could not be demonstrated, students achieved at least at the level of traditional instructions
- A high percentage of courses resulted in a decrease in drop-failure-withdrawal rates
- All redesigned courses showed a significant drop in overall cost of instruction
- A significant improvement in student attitudes toward the subject matter
- An increase in student satisfaction with the mode of instruction.

For case studies, go to http://thencat.org/RedesignAlliance/C2R/C2R_ProjDiscipline.html

These results were highly consistent with findings by USM redesign faculty in our first initiative.

NCAT identifies a number of common elements in successful course redesigns:
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.

Based on its nationwide experiences, 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. The Carnegie Course Redesign Initiative will support redesigns that utilize any of these approaches for the redesign of an entire course:

**The Supplemental Model**  The supplemental model retains the basic structure of the traditional course and a) supplement lectures and textbooks with technology-based, out-of-class activities, or b) also changes what goes on in the class by creating an active learning environment within a large lecture hall setting.
The Replacement Model  The replacement model reduces the number of in-class meetings and a) replaces some in-class time with out-of-class, online, interactive learning activities, or b) also makes significant changes in remaining in-class meetings.

The Emporium Model  The emporium model replaces lectures with a learning resource center model featuring interactive computer software and on-demand personalized assistance.

The Fully Online Model  The fully online model eliminates all in-class meetings and moves all learning experiences online, using Web-based, multi-media resources, commercial software, automatically evaluated assessments with guided feedback and alternative staffing models.

The Buffet Model  The buffet model customizes the learning environment for each student based on background, learning preference, and academic/professional goals and offers students an assortment of individualized paths to reach the same learning outcomes.

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. For the long term creation of a self sustaining redesign program, the cost savings achieved through the redesigned courses should remained in the department that generated them, and the savings achieved should be 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,
- a combination of these activities.

THE USM INITIATIVE  

The USM will build on the successful models and lessons learned both from NCAT’s national course redesign programs and from our own 2006-2009 initiative. The Carnegie Course Redesign Initiative establishes three cohorts of faculty redesigners. The first cohort will begin planning and implementation during the 2010-11 academic year, with a target for a pilot offering in Fall 2011 and complete course redesign in place for Spring 2012. The second cohort will start planning and implementation in Fall 2012 with pilot in Fall 2013 and the third cohort will begin Fall 2013 and pilot in Fall 2014.
Focus: Large-Enrollment Courses

In order to have maximum impact on student learning and achieve the highest possible return on the USM’s investment, redesign efforts supported by this Initiative will focus specifically on courses with high enrollments, in particular, those with multiple sections. In addition to having an impact on large numbers of students, there are other advantages of such a focus. In many large-enrollment courses, the predominant instructional model is the large lecture. While recognizing the limitations of the lecture method, many departments continue to organize courses in this way because they believe that it represents the most cost-effective way to deal with large numbers of students. The Initiative will demonstrate that alternatives that improve quality and are less costly than lecture-based strategies are possible.

In addition, many large-enrollment courses are introductory. These introductory courses are good prospects for technology-enhanced redesign because they have a more or less standardized curriculum and outcomes that can be more easily delineated. They also serve as foundation studies for future majors. Successful learning experiences in them will influence students to persist in key disciplines like the sciences. Finally, because those courses are often feeders to other disciplines, success in them will help students make the transition to more advanced study.

Selection Criteria

- USM will establish a competitive application process for Course Redesign funding
- Large enrollment courses may be courses with very large sections (e.g., traditional lecture courses) or courses that offer large numbers of smaller sections. In all cases, more than one person should be involved in teaching the course.
- Courses selected to be redesigned should face an academic problem (e.g., low successful completion rates), a resource problem (e.g., an inability to meet demand based on current resources), or a combination of both.
- Participants must be fully committed to completely redesigning and delivering a large enrollment course currently offered at a USM institution, utilizing one of the five methodologies endorsed by NCAT.
- The institution must commit to redesign of the entire course offering, not just individual sections of a course
- The institution must be willing to support the course redesign by agreeing to match the USM Carnegie Course Redesign funding.

To Learn More about the Initiative

To learn more about this Initiative, USM will sponsor orientation workshops that will provide much greater detail regarding both the program and the basic principles of Course Redesign.

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 course and institution. Participants will acquire a realistic understanding of the effort involved in planning and implementing a course redesign under this Initiative, the application process and the timelines involved.

The orientation workshop will be designed and delivered in conjunction with the USM Course Redesign Fellows for 2010-2011. The Fellows are a group of five faculty who have had successful redesigns under the 2006-2009 Redesign Initiative who will act as consultants and mentors for faculty who engage in the second phase program. They will provide both theoretical and practical knowledge and experience to faculty who are considering participation.

For more information, contact:

Assoc. Vice Chancellor Don Spicer at 301-445-2729 or dspicer@usmd.edu
Asst. Vice Chancellor Stan Jakubik at 410-455-5667 or sjakubik@sis.usmd.edu
USM Course Redesign Fellows group list at CRFellow@usmd.edu