

# **Large Course Redesign FAQ**

## ***About Large Course Redesign (LCR) Generally***

### **What does "large course redesign" mean? Can you define it in a sentence or two?**

Large Course Redesign (LCR) means re-conceiving and rebuilding the delivery of a large-enrollment course to increase student learning outcomes and contain or reduce instructional costs, primarily by incorporating instructional technology.

### **What qualifies as "large"?**

The National Center for Academic Transformation (NCAT) methodology refers to the top 25 courses in enrollment as the best candidates for large course redesign. These are often courses that have large sections (e.g., traditional lecture format) or large numbers of small sections.

### **Why redesign?**

Course redesign allows institutions to:

- Accommodate more students without adding resources.
- Free up faculty members to offer other courses and programs of study that are in demand.
- Increase student retention and meet goals for student achievement.
- Decrease time to graduation by adding additional seats in bottleneck courses.
- Improve consistency and quality across multiple sections.
- Use state and student tuition dollars more efficiently.

### **What are assumptions that get in the way?**

- Improving quality means increasing costs
- Adding information technology increases cost
- Using information technology may even threaten quality

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## ***About the Process***

### **Who does the work of redesigning? faculty? support staff?**

It is recommended that a team of faculty, instructional designers, instructional technologists, assessment specialists, administrators, and librarians is assembled to work on a redesign project.

### **How much time does it take a faculty member to work on a LCR?**

The Program in Course Redesign projects were developed over 2 year periods which were from proposal to assessment and final report.

### **Is any implementation part of this process or is it just a "design"?**

Implementation of the redesign is essential, as is assessment of the project's implementation.

### **What kinds of support for this process are available?**

There are "road map" documents, course planning documents, readiness checklists, and a cost analysis tool at the NCAT website. There is upcoming support from UNC TLTC.

### **Who decides which courses get redesigned?**

The group designated to oversee a large course redesign initiative, as well as the faculty and administrators.

### **What are essential criteria for readiness?**

- There needs to be a high level of commitment and buy-in from administrators and departments.
- Decisions about curriculum in the department, program, or school must be made collectively.
- The faculty must be able and willing to incorporate existing curricular materials in order to focus work on redesign issues rather than materials creation. Avoid the "not invented here" syndrome.
- A model for assessing and evaluating outcomes needs to be developed.
- The institution must have established ways to assess and provide for learner readiness to engage in IT-based courses.
- There needs to be a baseline level of academic technology infrastructure in place.
- Technology and faculty development support needs to be provided.

### **How are specific course needs determined?**

DFW rates, instructional weaknesses, seating capacities are indicators that can be used to determine if a course is a good candidate for redesign.

### **How is success measured?**

Success is measured by assessing student learning outcomes, as well as determining if costs have been reduced.

## ***About the Course***

### **Are these f2f or online courses?**

The courses to be redesigned are usually large section, face to face, lecture oriented courses. They are redesigned into courses utilizing blended learning principles which range from supplementing face-to-face classes to fully online courses.

### **What elements in the course are subject to this redesign?**

The elements in the course that are subject to redesign are the teaching method, the mode of content delivery, and sometimes the content itself.

### **What's wrong with the lecture?**

- Treats all students as if they are the same
- Ineffective in engaging students
- Inadequate individual assistance
- Poor attendance and success rates
- Students fail to retain learning

### **What's wrong with multiple sections?**

- In theory: greater interaction
- In practice: large class size
- In practice: dominated by the same presentation techniques
- Lack of coordination
- Inconsistent outcomes

### **Doesn't LCR defeat the value we place on having faculty engaged with students?**

Not necessarily, it could free up in class time for more interactivity and responsiveness from the faculty.

### **Isn't LCR just another name for teaching online?**

That is one method—there are several others, but all incorporate instructional technology. Teaching online is much broader than redesigning a large enrollment course.

### **What are some of the major models for LCR?**

The Program's redesign approach makes use of technology to refashion the course activities according to one of five models: a supplemental model, a replacement or hybrid model, an emporium model, a buffet model, or a fully online course model. Each of these models falls along the continuum of blended learning.

- The *supplemental model* retains the same number of class meetings, but adds technology-based out-of-class activities to encourage greater student engagement with course content. Some redesigns that used this model also changed activities within the classroom.
- The *replacement or hybrid model* reduces class meetings, replacing face-to-face time with online interactive learning activities for students. In some cases, the face-to-face class meetings are reconceived as well.
- The *emporium model* allows students to choose when to access course materials, what types of materials to use depending on their needs, and how quickly to work through the materials with the support of sophisticated instructional software and one-on-one on-site help. This model, as developed at Virginia Tech, is based on having staffed computer lab space available to support the students' activities.
- The *buffet model* assesses student learning styles and provides varied learning options within the course to allow students greater choice in the method they use to learn course material.
- The *fully online model* adopts many of the design principles used by the supplemental, replacement, and emporium models. This model often requires more time teaching online and interacting with students than is the case in classroom teaching.

Each of these models is used in the Program, but the most frequently used model is the replacement or hybrid model.

**Continuous assessment and feedback are essential to improving student learning, how can this be accomplished?**

- Automated (computer-based) assessment and feedback
- Repetition and frequent feedback
- Quizzes

## ***About Reducing Costs***

**How can you both save money and improve learning?**

By using instructional technology, active learning strategies, pooling resources, and streamlining faculty involvement, quality enhancements as well as cost savings can be accomplished.

**This sounds like a lot of work. How can it really save money?**

By

- Reducing instructional resources while keeping enrollments constant:
  - Substitute online tutorials for staff-led tutorials
    - Stream recorded lectures
    - Use already created online resources from publishers, MERLOT
  - Leverage automation

- Use LMS
    - Automate online assessment of exercises, quizzes, and tests
  - Effective use of resources
    - Share resources
    - Allow for staffing substitutions
    - Reduce space requirements
  - Use Undergraduate Learning Assistants
- Increasing course enrollment while keeping course expenditures constant
  - Increase section size
  - Increase number of sections using course assistants to supplement faculty

And/or,

- Reducing the number of repetitions required to pass the course
  - Reduce DFW rate

### **How do you go about measuring costs?**

- Measuring costs of the traditional course
- Measuring personnel costs
- Instructional costs of redesigned course
- The tool: <http://www.center.rpi.edu/PewGrant/CPtool.xls>

## **About LCR at NC State**

### **Can LCR work at a school like NC State?**

Yes, provided there is funding for projects.

### **What type of support does NCSU have for a LCR project?**

NC State has interested faculty, administrators, technologists, assessment experts, and librarians.

### **Who on this campus is interested in, or is working on, LCR?**

NC State has interested faculty, administrators, technologists, and assessment experts. DELTA is also interested in working on LCR. If you are also interested in or already working on LCR, please contact DELTA at [learntech@ncsu.edu](mailto:learntech@ncsu.edu).

### **How can one get funding for LCR?**

*The Redesign Alliance: Colleagues Committed to Redesign (C<sup>2</sup>R) Program* may be one resource. Under the umbrella of the Redesign Alliance, NCAT plans to bring four-person teams from 60 institutions together with NCAT staff and Redesign Scholars at a series of disciplinary institutes. The institutes will introduce the teams to the NCAT methodology,

share strategies and techniques for successful course redesign, and help them develop plans for course redesigns on their home campuses. Following each institute, NCAT will support collaboration and consultation among NCAT staff, Redesign Scholars and institutional teams to help teams apply what was learned at the institutes on campus and replicate prior successes. See, <http://www.thencat.org/RedesignAlliance/DissemProgram.htm>

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## ***About Learning More***

### **What is some of the research that indicates LCR works?**

The NCAT provides research from the 30 courses that participated in the Pew Program in Course Redesign. The findings show:

- The institutions in the original Program in Course Redesign embarked upon a systematic program to
  1. Understand the full instructional cost of delivering courses;
  2. Determine how information technology can be introduced as an instructional aid and labor-saving device; and
  3. Assess how well students are learning

The program produced five flexible yet distinct course redesign models that achieved both positive gains in student learning and reduced costs to the institution.

- Of the thirty institutions, twenty-five measured significant increases in student learning in the “redesigned” course when compared to the traditional course while the other five showed learning equivalent to traditional formats.
- Of the twenty-four institutions that measured student retention, eighteen showed significant increases in course completion.
- All thirty institutions were able to reduce instructional costs, on average by 37%, with a range of 20% to 77%.
- Through a grant from [Lumina Foundation for Education](#), NCAT was also able to examine the data and determine that these redesign strategies, while effective for all students, have a positive impact on traditionally underserved students (minority students, low-income students, and adult students).

### **Where can I read more about LCR?**

The National Center for Academic Transformation website at <http://www.center.rpi.edu/> lists these resources:

- [Policy Alert: Course Redesign Improves Learning and Reduces Cost](http://www.highereducation.org/reports/pa_core/core.pdf) ([http://www.highereducation.org/reports/pa\\_core/core.pdf](http://www.highereducation.org/reports/pa_core/core.pdf))  
This 2005 article published by the National Center for Public Policy and Higher Education provides a brief overview of the Program in Course Redesign.

- [Improving Learning & Reducing Costs: Redesigning Large-Enrollment Courses](http://www.thencat.org/Monographs/ImpLearn.html)  
(http://www.thencat.org/Monographs/ImpLearn.html)  
This 1999 monograph explores the theory and practice of redesigning learning environments using technology to enhance learning and reduce costs upon which the Program in Course Redesign was based.
- [Increasing Success for Underserved Students: Redesigning Introductory Courses](http://www.thencat.org/Monographs/IncSuccess.htm)  
(http://www.thencat.org/Monographs/IncSuccess.htm)  
This 2005 report examines the impact of the redesign techniques developed by the Program in Course Redesign on the success of adult students, students of color and low-income students.
- [Improving Learning and Reducing Costs: New Models for Online Learning](http://www.educause.edu/ir/library/pdf/erm0352.pdf)  
(http://www.educause.edu/ir/library/pdf/erm0352.pdf)  
This 2003 article published in the EDUCAUSE Review describes the five redesign models that emerged from the Program in Course Redesign.
  - **Case Studies**  
These case studies illustrate each of the five redesign models described in the preceding article. Each case includes a one-page project abstract, a full academic plan, a full cost savings plan, ongoing progress reports and a final outcome report for each institution.
    - [Fairfield University: Biology \(Supplemental\)](#)
    - [The University of Tennessee: Spanish \(Replacement\)](#)
    - [The University of Alabama: Intermediate Algebra \(Emporium\)](#)
    - [Florida Gulf Coast University: Fine Arts \(Fully Online\)](#)
    - [The Ohio State University: Statistics \(Buffet\)](#)
  - [Lessons Learned](http://www.thencat.org/PCR/Outcomes.htm) (http://www.thencat.org/PCR/Outcomes.htm)  
Each of these three monographs offers an in-depth analysis of the Program in Course Redesign projects, with a focus on the most important quality improvement and cost reduction techniques used in the redesigns, the implementation issues they encountered, and the projected sustainability of the course redesigns.
    - [Round I Redesigns: Lessons Learned](#)
    - [Round II Redesigns: Lessons Learned](#)
    - [Round III Redesigns: Lessons Learned](#)

Another good resource from NCAT is:

R2R The Roadmap to Redesign, [Five Principles of Successful Course Redesign](http://www.center.rpi.edu/PlanRes/R2R_PrinCR.htm).  
(http://www.center.rpi.edu/PlanRes/R2R\_PrinCR.htm)

This best practices analysis is also important to read:

Morgan, Glenda, CSU Office of the Chancellor. [Best Practices in Academic Transformation](#), September 2006.

(http://www.calstate.edu/ats/transforming\_course\_design/documents/Academic-Transformation-best-practices.pdf)

**What conferences and/or organizations focus on LCR?**

The NCAT hosts The Redesign Alliance conference annually. The last conference was held in March 2007. More information can be found at <http://www.thencat.org/RedesignAlliance/Conference.htm>.