Instructional Redesign: Sustaining a Learning College

Report to President Spilde

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Instructional Redesign Taskforce

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Abstract:

This report to President Spilde is the work of the Instructional Redesign Taskforce, 2006-2007, referred to hereafter as the Taskforce. In this report the Taskforce summarizes its work during this academic year. The report includes a description of the Taskforce formation and work process, a list of findings regarding instructional redesign and its potential at Lane, a set of redesign proposals for the next academic year and beyond, and a proposal for ongoing redesign work. Finally, a number of appendices are included. They include:

- summaries of research articles reviewed by taskforce members,
- a rubric for assessing the financial and learning impact of potential redesign projects,
- specific analyses of several of the projects recommended for implementation.

Introduction:

In January 2006 President Spilde called for a fundamental redesign of instruction as one of the strategies for the long term fiscal sustainability of Lane Community College. In response to this, Vice President Christian established an Instructional Redesign Process Planning Team, comprised of faculty members in leadership positions and managers (see Appendix A), to develop a proposed process for this work. (see Appendix B). The Process Planning Team developed guidelines for the purpose and process of this work. This resulted in the creation of the Instructional Redesign Taskforce with two-fold responsibility:

- Act as a research group and develop proposals for systemic redesign of instructional practices at the institutional level, and
- Act as a coordinating group for the work being done at the instructional department/division level.

The impetus for instructional redesign in this case is the financial situation facing the college. Instruction at Lane has been continuously redesigning itself for many years, with students and student learning at the forefront. These redesign efforts range from curriculum enhancements in individual classes, to learning communities and the use of technology, to the broad strategic levels of the Strategic Learning Initiative (SLI), the Learning College discussions, and Lane's Learning Principles. This instructional redesign effort is similar to some of these previous efforts in its purposely systemic, campus-wide perspective, but differs from that previous work in its particular attention to fiscal issues. This effort is a response to the financial challenges Lane faces, and it is in no way intended as criticism of instruction at Lane.

Although the catalyst for the work was fiscal, the taskforce concluded that it was essential to keep student learning and quality of work life in the forefront. This resulted in the development of three primary principles to frame our work:

- Improve the financial sustainability of Lane.
- Sustain high quality learning for our students,
- Maintain the quality of work life for our staff.

These three principles formed the main criteria by which we evaluated potential directions for redesign. If we were able to hold harmless the last two principles while making gains in the financial area, then our work would be successful. These proposals came from departmental unit plans, linked to Learning Plan and other strategic plans.

Work Status:
The Instructional Redesign Taskforce engaged in the following work during the 06-07 academic year. This list is not chronological, and our work is ongoing:

- Reviewed Section III of unit plans submitted by instruction and student services units for redesign proposals with strong potential for systemic application and financial gains, and identified 20 initiatives as candidates for further exploration and analysis (See Appendix C).
- Created a website with resources at http://www.lanecc.edu/oiss/instructionalredesign.htm
- Developed subcommittees and created a Moodle discussion site at http://moodle.lanecc.edu/winter2007/ to facilitate subcommittee discussion.
- Began a literature review related to instructional redesign and posted significant articles on the website.
- Mapped redesign proposals to the Learning Plan and Budget Development Priorities
- Created a report to inform the work of the Budget Review Group.
- Established a framework for evaluating redesign proposals, including the three main criteria and adapted an impact analysis rubric developed for SLI project review. Utilized selected institutional data elements where appropriate to complete the economic impact analysis of the redesign proposals. (See Appendix E)

- Through discussion and analysis selected a shorter list of proposals with potential for near-term systemic impact if implemented.
- Developed a table showing various stages of progress of our selected list of projects.

Outcome:
The outcome of this process has been a set of instructional redesign proposals, at the departmental and institutional level, recommended to the President and college community for further study, that in the view of the Taskforce may help move Lane towards fiscal sustainability while not negatively impacting the quality of learning and the work life of faculty and staff. In addition to these initial redesign proposals, this report includes a set of findings relating to instructional redesign, and a proposal for a continuing process of instructional redesign in the following year.

Findings:
In its review of external materials and internal proposals for instructional redesign, the Taskforce has come to a number of conclusions and understandings that should help guide ongoing instructional redesign at Lane. These findings reflect the best understandings of the taskforce at this time, based on its research and discussions.

The taskforce believes that instructional redesign has potential to make significant gains in bringing Lane toward economic sustainability, while maintaining quality of student learning and staff work life. However, instructional change cannot, by itself, balance Lane's budget in the short term. Most instructional redesign efforts will take some time to achieve their greatest benefits. Where redesign generates additional FTE, the state reimbursements won't increase immediately. Instructional redesign is a central element in achieving long-term financial sustainability for Lane, but can't be the single solution to the current crisis.

Redesign can be incremental and small-scale, and it can be systemic and large-scale. Lane must engage in redesign at both levels in order to maximize its responsiveness to change and maintain its economic efficiency. Redesign efforts which prove themselves at a small scale should be considered for upward scaling to increase their benefits to Lane.

Fundamental redesign of instruction is not possible without some investment of resources by the college. In a time of budget shortfall, where additional resources are not available, redesign will require a shifting of some resources from one area of the college to another. The difficulties of shifting resources in this way represent one of the largest institutional barriers to redesign.

Finally, the Taskforce concludes that Instructional Redesign must be an ongoing effort at Lane if the college is to achieve and sustain financial stability. Most successful institutions and businesses invest in continuing research and development, in order to maintain currency, adapt to changes in the environment, and improve efficiencies and performance. Lane's long-term sustainability requires a similar ongoing investment in systematically improving its instructional program with economic viability as one of the

primary criteria for that effort. Strategic plans like Learning Plan should include a fiscal lens and inform unit planning.

Instructional Redesign requires:

- a system to support the research and broad implementation of best practices. systemic or college-wide implementation where appropriate.
- a culture of continuous redesign and innovation that considers all three criteria. Redesign should be integrated with Unit Planning efforts.
- Access to flexible, accurate and timely data, so that redesign is research and data-based.
- A system and set of tools for evaluating and assessing redesign efforts and, where they have potential, expanding them to the appropriate level.

Possibilities for economic benefit from Instructional Redesign:

- Increased enrollment in current programs
- Increased success and therefore retention in current programs
- New programs responsive to community needs (if they are themselves financially viable)
- Increased "productivity" in current programs (measured by total $ spent per student FTE)
- Lowering of college overhead costs without reducing enrollments

Proposal for Ongoing Instructional Redesign 07/08:

The Taskforce recommends continuing the work of the Instructional Redesign Taskforce in its research and coordination roles through next year. The Taskforce should collaborate with SLI in developing redesign projects, and with Learning Council on policy and planning issues. Work should continue on developing a permanent Redesign/ Research and Development/ Institutional Effectiveness structure. Appendix F contains some initial ideas toward a process of organized redesign.

Instructional Redesign Projects Highlighted by the Taskforce:

Institutional level:
The work of the taskforce this year has largely consisted of reviewing the small-scale and incremental redesign proposals from departments, via the unit plans, to locate those ideas most likely to have financial benefit for the college, and in particular to identify those projects with the greatest potential for broad, systemic application in a relatively short timeframe. We have begun a more in-depth impact analysis on these projects, to better project their possibilities for success. These institutional level proposals have the best chance to relatively quickly reduce costs and/or bring in additional revenues to Lane. In some cases these projects are already well-formed, and need institutional support only in extending their scope. The Taskforce suggests continuing and expanding these efforts, providing support where necessary. In other cases, the directions identified by the Taskforce require new teams to research, plan, and implement the strategies. The taskforce believes these projects should be developed by the college.

The table below summarizes the highlighted projects. Further details in narrative form follow this chart.

Category	Project Name	Taskforce direction	Design Team
Projects underway	First Year Experience	Expand	Existing FYE team
	High School Connections	Expand	Existing High School Connections Team
Projects with potential for further development in 2007-2008:	Learning Management Information Systems	Research and Development to explore college-wide potential while expanding pilots. Evaluate the impacts—financial, student learning.	
	Student Work and Learn/Applied Learning	Research and Development to explore college-wide potential while expanding pilots. Evaluate the impacts—financial, student learning.	

	Develop new Short Term and intensive classes and ongoing institutes:	Research and Development to explore college-wide potential while expanding pilots. Evaluate the impacts—financial, student learning.	
Projects Needed to Support Ongoing Instructional Redesign	Develop a system that supports the rapid development of new programs in areas of growing need and sun-setting of programs that do not meet a community or regional need.	Develop a system by integrating systems. Linking unit planning with curriculum development, approval. This needs to be aligned with the policies and plans of learning council.	This effort could be undertaken by the planning sub committee of college council. Learning Council can also undertake this work.
	Develop a budget model and set of tools for budget analysis.	This model should be developed/	Budget subcommittee of college council
	Create a structure and system that supports interdisciplinary redesign efforts with proven value such as learning communities and First Year Experience, while also supporting new and developing redesigns. Build institutional infrastructure for instructional redesign, including a physical location to incubate and integrate systemic instructional innovations and house its necessary administration and	Mainstream research and development as an ongoing activity with resources. Develop a system that supports redesign efforts and create structures that support it.	Instructional redesign/SLI

	support staff. (See appendix E for details)		
	Use technology in instructional redesign that has a positive economic impact, maintains the quality of student learning, and quality of work life.	Investigate the opportunities available in the Open Educational resources (OER) area. Other technology redesign like NCAT	Faculty web masters plus taskforce with interested personnel.

Projects already underway:

First Year Experience:
Literature shows that students are most vulnerable to "dropping out" of college during their first year. This knowledge resulted in the development of interventions during the first year in an attempt to "retain" the student in college. The focus on the student's first year and the development of a collective set retention strategies is termed "first year experience."

Lane's First Year Experience is called FYRED UP and the current program components include, but are not limited to: Fast Lane learning community, Fall Kick Off, peer mentors, assigned counselors, e-portfolios, mid-term progress report, and student and program assessment.

The Fall FastLane learning communities (EL115 + CG100 + either WR121 or WR115) are the core instructional components of FYE. Nationally recognized "On Course" principles are the foundation for these linked classes. Analysis and tracking of the Fall04 and Fall05 cohorts reveal increased retention and course success for FastLane students, compared with students who do not enroll in FastLane. EOAR (Early Orientation and Registration) students are also included in these comparisons; EOAR participants consistently demonstrate increased retention and course success over non-EOAR students. Students benefit personally from learning and practicing strategies for effective self-management, decision-making, self-responsibility, study skills, writing, etc. Lane benefits financially from increased course success and retention rates. (See Economic Impact Rubric, appendix E)

If Title III funds are awarded to Lane for 07-08, FYE programs will expand significantly over the next five years. Goals include increasing retention, transfer, and graduation rates, as well as the number of students participating in new student orientations and advising and greatly expanding the number of FastLane sections. (See Title III grant narrative.)

High School Connections:
The expansion of College Now will have a positive economic impact since the cost for instruction is borne by the high schools and although Lane does not receive tuition revenue, the growth in FTE without increasing costs will help position Lane for larger state allocations.

The economic analysis (see Appendix E) indicates a significant growth in FTE over the last two years. All disciplines should plan on participating in the next two years.

In addition to College Now, High School Connections include the expansion of career technical education opportunities for students though the Regional Technical Education Consortium (RTEC) initiative and the Pathways initiative that aligns K-20 curricular outcomes to employment requirements.

Projects that need further development in 2007-2008:

Learning Management Information System:
The intent of this project is to design and develop a prototype Learning Management Information System (LMIS) that will lead to the future implementation of LMIS in other appropriate programs across the college. The LMIS prototype would include system design constructs to facilitate implementing and managing learning college principles, outcomes and skills-based curricula, interactive learning, continuous real-time assessment, and life-long learning documentation. The scope of the LMIS prototype would include modules for aligning student goals to careers and programs, testing, curriculum development, student assessment, student portfolio development, skills to course mapping, and interfacing to the college-wide student information system through a single, life-long, learning portal.

The expected outcomes of the LMIS prototype would be to 1) design, implement, and test a skills-based curricula database; 2) provide student-initiated, web-enabled instructional navigation; 3) provide real-time instructional assessment processing; 4) increase student/faculty interactive learning time*; 5) increase interdisciplinary instruction (learning communities); 6) increase effective student/teacher ratios; 7) reduce overall instructional costs through increased productivity; and 8) provide centralized management of the learning information systems during the project.

A preliminary example of an LMIS system is currently being developed in the automotive technology program. The automotive program purchased an integrated LMIS with an eight station computer/trainer-based industry standard curriculum. This system facilitated changing the curriculum from a sequential term/course, lecture format to an open entry, interactive learning modules format. In the prior curriculum, two instructors taught 22 students each term. In the new curriculum, the two instructors would work as a team and teach 60 students each term (8 students maximum per learning module). Such changes require the active agreement and participation of faculty, and workload changes require the agreement of the College and the Association.

*The educational time in which a student is actively seeking knowledge and a teacher (or knowledge expert) presents and reinforces that knowledge. Interactive learning is:

- Active
- Student Initiated
- Teacher (Expert) Reinforced
- Student Acknowledged
- Documented

The economic impact analysis indicates that there is a significant positive economic impact. The net income per FTE in Automotive Technology increases from $1,441 per FTE to $1,958 per FTE a difference of $517 per FTE. (See Economic Impact Rubric, appendix E)

Note: Scaling this type of system to broader use has significant potential for economic benefit, and current use, based on limited data, suggests student learning and faculty work are maintained or improved. Expansion of this and similar technology systems requires a significant development process though, including investigating where such systems are appropriate, developing curriculum, and then implementing and testing them in those areas. Assuming that student learning outcomes are maintained, this project represents a successful use of technology as a cost-saving, learning tool.

<u>Student Work and Learn Program (Applied Learning):</u>
Create a system that can locate and support opportunities where student learning and needed college work coincide. Organize courses around learning opportunities for students that also benefit the college economically. Examples include tutoring and peer mentoring, student services, developing open source software systems, sustainability efforts, participating in marketing and web design, and partnerships with local businesses.

Appendix E outlines the different ways students can participate in work opportunities as a potential learning opportunity.
Some examples:

- Student works for college doing work related to their degree, major, or career
- Student works for the college in a job not necessarily related to their degree or major
- Student works for the college within context of a regular credit course in which they are enrolled
- Student works as a TA to one or more instructors allowing increased class size.

Further research and development needs to be undertaken to expand this initiative campus-wide. Initial steps have been taken this year to form a team of interested staff to develop this program.

Develop new Short Term and intensive classes and ongoing institutes:
These would include classes that are outside of our current time frame (hours of operation) for our conventional classes and instruction that is designed for students who currently cannot attend Lane or need differing class times to complete their degrees. This includes courses that would be available for businesses to utilize Lane for ongoing training and development of their workforce. (See appendix E for details)

The taskforce encourages divisions to explore new opportunities for short term classes that are strategic. How can we make this more visible in a systematic way? There could be more research and planning done to make this more systematic. This research and planning work will be conducted by the newly constituted instructional redesign taskforce.

Develop a systematic approach in creating and expanding new programs to meet community needs.

1. Initially we will need a structure within the college (existing or new) that supports and develops a process for evaluating the need and promoting the development or expansion of new or existing programs.

   Resources needed:
   - Program development taskforce or committee
   - Community needs assessment data
   - Data about existing programs and future needs of our community;
     a. Success rates of student job or transfer placement
     b. Workforce/career job potential within our community and state
     c. Cost per student to determine need to keep, expand or implement the program
     d. Programs should offer certificates, 1 or 2 year with a menu of different options that might be specific to a local job need or to a university or business that we are collaborating with. Example, feeder program to university programs for a undergraduate/graduate degree or to a local business to train/certify current or future employees in some aspect of a job.

2. Marketing of new program
   a. Focus on advertising to the community about both shorter and longer term programs that will lead to a market of need to get a job or an area that will lead to their future college success and possibly easier entry into university program.

3. State has a process to add new certificates within existing program or to develop new programs. The taskforce could assist any program with the development and implementation of this process more quickly.

Benefits

- Increased collaboration with local businesses and surrounding universities (=increased visibility for LCC)
- Increased FTE from students who might otherwise overlook LCC and go directly to a university or not attend college at all (FTE we are currently not capturing).

A more thorough process of evaluating degree and certificate programs to see if they continue to be a good " fit" the direction of the college (ie. Cost effective, adding to the value of our mission/vision and reputation) and to expand existing programs or add if a need exists within our community

Projects Important for Ongoing Instructional Redesign

Several other projects and proposals, while they may not have an immediate large impact on the budget crisis, seem necessary to support the college in systemic way for ongoing instructional redesign.

- Develop a system that supports the rapid development of new programs in areas of growing need and sun-setting of programs that do not meet a community or regional need. This effort could be undertaken by the planning sub committee of College Council. Learning Council can also undertake this work.
- Develop a budget model and set of tools for budget analysis.
- Create a structure and system that supports interdisciplinary redesign efforts with proven value such as learning communities and First Year Experience, while also supporting new and developing redesigns. Build institutional infrastructure for instructional redesign, including a physical location to incubate and integrate systemic instructional innovations and house its necessary administration and support staff. (See appendix E for details)
- Use technology in instructional redesign that has a positive economic impact, maintains the quality of student learning, and quality of work life.

Departmental Level:

In response to its mandate to coordinate redesign efforts at the department level, the Taskforce has begun to catalogue and review Instructional Redesign efforts already taking place within individual departments and programs. A partial listing of those efforts follows here.

Division	**Redesign Project**
Arts	Development of Core and Extension Curriculum Reduction of Under-enrolled Extension Sections Redesign of Graphic Design Redesign of Printmaking and Fibers
Advanced Technology	LMIS Automotive Technology
Business	Development of core curriculum
Computer Information	Development of core curriculum

Technology	
Counseling	Development of courses for students on financial aid probation
Culinary and Hospitality	Culinary Arts First Term Experience Changing the CA 160 Cooking Theories 1 class from 2 2-day lecture/lab classes to one combined lecture classes plus 3 lab classes, plus a supplemental lab for additional assistance. This change allows us to increase our initial enrollment into the first term by at least 20%. This one change, assuming we can attract and enroll the additional students, will impact class sizes for the rest of the two-year cycle, creating a positive fiscal impact on revenue from tuition, fees and FTE reimbursement. CAHM Peer Tutors Several classes, including Cooking Theories, Hospitality Financials and Culinary Math prove difficult for students to successfully complete. A peer tutoring pool will be organized with second year students giving assistance to the first year students needing help to pass these classes.
Family and Health Career	▪ Respiratory Care ▪ Nursing ▪ Early Childhood Education
Health and Physical Education	Fitness Education Program Therapeutic Exercise and Rehabilitation Program
Math	Redesign efforts in the developmental math core offerings
Science	The Chemistry and Anatomy and Physiology disciplines are expanding the number of sections available in large lecture, small lab format. This allows for a more agile response to increased student demand and more uniform delivery of curriculum. Enrollment Increase in Online Course This is a future project involving online BI 102I Human Biology. The course currently enrolls 35 students each term, and there is demand each term for at least 20 more seats. To add the additional students as a new section would not decrease costs, so we are exploring recruiting advanced undergraduates or BS-degreed assistants to oversee discussion groups, and perform rubrick-based simple assessments of students' contributions and interactions.

In addition, departments made significant changes in pedagogies, teaching methodologies to accommodate more students in their classes and thereby positively impacting the financial picture by approximately $760,000. Here are some examples:

Revenue enhancement:

Dental Hygiene	$28,589
Nursing AND	$90,905
Nursing LPN	$37,530
Respiratory Care	$10,110
Paramedic	$14,358
Total	**$181,492**

Net savings from reduction of class sections:

Academic Learning Skills	$81,257
Advanced Tech	$5,490
Art & Applied Design	$102,186
Art & Applied Design	$11,213
Cooperative Educ	$35,889
Counseling	$9,939
Cottage Grove	$28,009
Florence	$22,413
LLC	$100,718
MDTA	$55,600
Science	$87,859
Social Science	$37,424
Total	**$577,997**

The Office of Instruction and Student Services (OISS) will work with the grant writer, members of the instructional redesign taskforce, and department faculty and staff to submit proposals for external funding in order to support the redesign efforts.

Targeted area for further study and experimentation:

- Technology and NCAT Opportunities in the technology area should be further explored. See appendix B for related literature reviews.
- Open Educational Resources (Creative Commons) Opportunities for improved student learning and economic benefits to the college may be realized utilizing the newly developing technology resource.