



***“Reinventing Teaching and Learning Using Technology at Lawrence Tech”
Mid-Term Report to the Community
November 1, 2007***

Lawrence Tech has made significant investments in its academic programs, student services, assessment methods, faculty professional development, IT infrastructure and applications, digital library services, and instructional technology services. Key initiatives associated with these investments – the undergraduate student laptop program, the campus wireless program, the campus-wide adoption of Blackboard, and the establishment of LTU Online – cannot create sustainable competitive advantage in isolation. These investments can be leveraged to “reinvent” Lawrence Tech’s learning environment for all modes of instructional delivery.

National efforts and programs such as the EDUCAUSE Learning Initiative¹, eCar², Sloan Asynchronous Learning Network³, the National Center for Academic Transformation⁴, and the Coalition for Networked Information⁵ all point to the convergence of pedagogy with technology. Few campuses, however, have integrated pedagogical improvements with campus technology investments on a planned basis. Lawrence Tech can “reach” to make this happen, and has the potential to create a competitive advantage in this area by being recognized for our innovative use of technology to support all modes of learning – traditional, hybrid, and online.

The “Reinventing Teaching and Learning Using Technology” Task Force builds on the existing university-wide learning technology initiatives: the undergraduate laptop program and the campus wireless program. Potential grant funding exists to support academic transformation through technology. Implementing an advanced learning technology environment should improve instruction for both on-campus and online students.

Task Force Objectives and Timeline

The Task Force is charged with evaluating technology-based approaches to support improving the quality of instruction in traditional, hybrid, and online classrooms. The Task Force will recommend how best to leverage existing investments in networking, laptops, instructional technology services, online course development, discipline-specific software, simulation, and other technologies to leverage instructional improvement in all delivery modes. The first Task Force deliverables should provide input to the 2008-2009 planning and budget processes.

The Task Force will work for a twelve-month period to address the following objectives:

1. Use lessons learned from across Lawrence Tech for what is effective and efficient, and identify how Lawrence Tech can migrate these practices into traditional, hybrid, and online classes.
2. Identify external institutional benchmarks and discipline-focused best practices for how to use technology overall to support instruction.
3. Identify different technology (software, hardware) in each discipline to recommend how these tools can be used to support classroom, hybrid, and online instruction.
4. Identify infrastructure, service, staffing, budget, and timing needs to support the improvement of instruction.

¹ See <http://www.educause.edu/eli071>

² See <http://www.educause.edu/ecar>

³ See <http://www.sloan-c.org>

⁴ See <http://www.thencat.org>

⁵ See <http://www.cni.org>

“Reinventing Teaching and Learning Using Technology at Lawrence Tech” Mid-Term Report to the Community

5. Integrate the work of the Task Force into Lawrence Tech’s assessment, strategic planning, and budgeting processes.
6. Conduct a technology tool and skillset inventory
7. Share effective course development methodologies

The Task Force will operate for one year, with monthly meetings starting in March 2007 and ending in March 2008. The Task Force will support its work using a Blackboard organization, a public web site, and periodic updates to the Lawrence Tech community.

The Task Force schedule is organized into four parts:

1. The “first quarter” is focused on identifying potential technologies and pedagogies for consideration
2. The “second quarter” is focused on information gathering and site visits to provide the task force with more information about the technologies under consideration
3. The “third quarter” is focused on identifying proposed technological and pedagogical improvements for the campus; and
4. The “fourth quarter” is focused on identifying budgetary needs and timelines

The Task Force will issue a status report to the campus community mid-way through its work and a final report at the end of its work. The final report of the Task Force will lay out a vision for Lawrence Tech’s new teaching and learning environment, including specific recommendations for each college and for University-wide initiatives coordinated through VITRC, EDCC, the Library, LTU Online, and other departments. These recommendations will be issued in March or April 2008 so they may be incorporated into the University’s annual budgeting process.

Summary of Progress to Date

The Task Force has met monthly starting in March 2007. Detailed meeting notes are posted to the Task Force Blackboard organization. The major accomplishments of the Task Force to date include:

1. Identify benchmark universities and technologies for exploration (see the “Benchmark Institutions” section for more information).
2. Identify an initial set of discipline-specific software and hardware for exploration.
3. Sent teams or individual participants to the following conferences and institutions:
 - A team visited Virginia Tech to evaluate their use of tablet computers for engineering instruction.
 - Bill Drummond participated in the EDUCAUSE Learning Initiative focus session on immersive technologies.
 - Rachel Cronover participated in the EDUCAUSE Learning Initiative focus session on the “net savvy” student.
 - Bill Drummond, Linda Wareck, Marquita Poinsetta, and Paula Nranian participated in the Blackboard World conference.
4. Invited Dr. Carl Berger, Dean Emeritus of the University of Michigan School of Education, to the campus for a presentation (attended by approximately 100 faculty, staff, and administrators) and in-depth discussions with the Task Force, Dr. Walker, and Dr. Vaz.
5. Following Dr. Vaz’s decision to deploy tablet computer to entering freshman students, provided extensive support to the implementation process including:
 - Exploration of Virginia Tech’s Classroom Presenter software and presentations on the software by Dr. Scott Schneider
 - Inventory of discipline-specific software by Dr. Pam Lowry to determine migration issues from laptops to tablets
 - Established a faculty task force on tablet computing led by Dr. Pam Lowry
6. Established a relationship with MIT iLabs project to make LTU engineering laboratory equipment available over the Internet.
7. Established a student technology interest group facilitated by Bill Drummond.
8. Provided support and counsel on major Blackboard initiatives including:
9. Review of Blackboard 7.2 roll-out and support plan.

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10. Initial input on implementation of the Blackboard Content System including academic roles and promotion of shared content.
11. Explored the use of audience response systems (“clickers”) for use in the classroom. After extensive discussions and reviews of experiences at other institutions, the Task Force agreed that clickers should not be implemented at Lawrence Tech. As all LTU undergraduate students have laptop or tablet computers, the Wimba “Live Classroom” product (available in all Blackboard course shells) provides comparable functionality without additional investment or administrative overhead.
12. Explored the use of classroom capture technology systems such as Tegrity, determined the Wimba Live Classroom product, with the addition of low-cost microphones and web cameras provides comparable functionality without additional investment or administrative overhead.
13. Explored the use of existing and low-cost tools to capture classroom lectures and post them to Blackboard or as video streams.
14. Reviewed the University’s new policy on the TEACH Act as well as training materials developed by Gary Cocozzoli and the Library staff for dissemination to the community.

Next Steps

The Task Force will continue to meet monthly until March 2008. Upcoming tasks include:

1. Participate in the Sloan-C, EDUCAUSE Learning Initiative, and Wimba conferences.
2. Re-focus attention on identifying discipline-specific software.
3. Visit MIT to learn about iLabs, Open Courseware Initiative, Dspace, and other MIT initiatives.
4. Identify several proposed improvements for infrastructure, hardware, software, and facilities.
5. Develop implementation and budget recommendations.
6. Prepare the final report.

Benchmark Institutions

Task force members identified these institutions as benchmarks for technology services in support of teaching and learning.

Institution/Organization	Exemplar
Dartmouth University	Mobile computing, wireless “win-wini” applications
Emory University	Center for Teaching and Learning, use of classroom spaces
Madonna University Macomb Community College	Classroom Lecture Capture
Massachusetts Institute of Technology	D-Space, Open Courseware Initiative, iLabs, Classroom spaces, Second Life initiative, Merlot faculty development, MIT Media Lab
Michigan	Sakai CMS
Michigan Community College Association	Moodle CMS
Michigan State University	Classroom Clickers
University of British Columbia	Social Networking
University of Detroit Mercy Beaumont Hospital	Use of tablets to support medical education
University of Michigan University of California – Berkeley	Sakai course management system, Video Capture and Indexing (Virage), Streaming Media
University of North Texas	Faculty training, online program administration
University Wisconsin – Madison	Streaming Video Services, WinMedia and QT
Virginia Tech University	Engineering applications, tablet computing

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Task Force Membership

The Task Force will be comprised of University faculty members drawn from each academic department, supported by administrators, and championed by Provost Maria Vaz. Task Force membership will include one faculty representative from each of Lawrence Tech’s academic departments, along with administrative staff representing Lawrence Tech’s information technology, learning technology, and library services:

College and Administrative Units	Representatives	E-mail
Architecture – Architecture	Tom Nashlen	nashlen@ltu.edu
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Veraldi Instructional Technology Resource Center	Pam Lowry	lowry@ltu.edu