**UNC**
**tlt** **collaborative**
*teaching and learning with technology*

# UNC TEACHING AND LEARNING WITH TECHNOLOGY COMPENDIUM

*A Collection of Effective Practices on UNC Campuses*

*June 2003*

**UNC TEACHING AND LEARNING WITH TECHNOLOGY COLLABORATIVE**

Welcome to the

**UNC Teaching and Learning with Technology Compendium**
*A Collection of Effective Practices on UNC Campuses*

On every UNC campus, technology is touching the lives of faculty and students in ways never imagined a few years ago.  To help campuses share their success and learn from sister institutions, the UNC Teaching and Learning with Technology Collaborative developed this compendium of effective practices and special projects that demonstrate how faculty and staff are effectively and efficiently incorporating technology into instructional programs.

The compendium showcases more than 50 initiatives in faculty development, instructional support, e-Learning, faculty and student support services, and library resources. The focus is on projects that address institution-wide initiatives, have a track record of success, and can be replicated on other campuses.

Projects featured in the compendium were selected from recommendations submitted by the TLT Collaborative Board.  The TLT Collaborative plans to update the compendium annually.  Please share your suggestions for additional entries with Andrea Eastman-Mullins, Information and Technology Coordinator of the TLT Collaborative, andrea@northcarolina.edu.

# Appalachian State University
**Faculty Laptop Project**
ASU required faculty who signed up to receive laptop computers to attend mandatory training classes on effectively using the technology in their teaching. During a series of mandatory summer workshops, participating faculty experienced what it's like to be a student in a web-driven course and then learned how to put their own materials online to support their courses and enhance communication with students. Additional workshops in streaming media and specific disciplines also were offered, along with one-on-one assistance to meet individual needs. Although the university owned the machines, faculty said personal access to a laptop was a better incentive than either stipends or reassigned time for learning how to integrate the technology into their classrooms. About 350 faculty participated in the "Initiative for Faculty Training with Technology," a three-year project funded by the academic affairs division and supported by three staff positions. Laptops were made available based on the number of FTE faculty in each of ASU's colleges. (Note: The Faculty Laptop Project has been placed on hiatus due to budget constraints.)
Steve Breiner, 828-262-6731, breiner@appstate.edu

**Review of Online Course Materials Provided by Publishers**
ASU offers faculty a special service to help them rate the merits of online course materials promoted by publishing companies. Publishers frequently contact faculty directly and promote their online courses and course materials, along with their textbooks. Many publishers send CDs that provide an overview of the course. ASU faculty can submit these materials to staff in Instructional Computing Services for an evaluation based on production and pedagogical values. Launched in the Fall 2001, this service has proven highly useful in helping ASU judge the quality of online course materials and their value to both teachers and students.
Steve Breiner, 828-262-6731, breiner@appstate.edu

# East Carolina University
**Access Grid**
ECU and WSSU have Access Grid (AG) nodes. The AG (http://www.accessgrid.com), an Internet2 application, supports large-scale distributed meetings, collaborative work sessions, seminars, lectures, tutorials and training. The AG enables higher education institutions, supercomputing centers, science and engineering laboratories, and corporate leaders around the world to form virtual communities by linking to one another in "persistent electronic spaces." The AG complements the computational grid by providing group-to-group communication. Argonne National Laboratory, a U.S. Department of Energy lab operated by the University of Chicago, developed the AG. There are more than 130 AG sites worldwide.
Sandra Huskamp, 252-328-1121, huskamps@mail.ecu.edu
Stephen Maat, 336-750-2239, maats@wssu.edu

**Assistive Technology Laboratory**
ECU's School of Education has a state-of-the-art assistive technologies laboratory.
Twenty-four computer stations are equipped with alternative input and output devices,
plus a full range of specialized software.  The lab
(http://www.soe.ecu.edu/sped/spedhome.htm) supports undergraduate and graduate
students and serves as a training facility for practicing teachers in the region.  The lab
mails a toolkit of specialized software and hardware to students enrolled in ECU's
assistive technology graduate certificate program, which is totally online; students return
the materials upon completion of the program.
Sandra H. Warren, 252-328-2699, warrens@mail.ecu.edu


**Center for Wireless and Mobile Computing**
The ECU Center for Wireless and Mobile Computing (CWMC) is an interdisciplinary
unit that promotes the implementation of two major projects, Handsprings to Learning
(HtL) and OWLS (Online Wireless Learning Solutions).  The integration of HtL and
OWLS provides a strategy for asynchronous learning anytime and anyplace using
handheld computers and bandwidth intensive content on CD and/or secure digital course
media.  The CWMC has developed software, hardware and instructional strategies that
can be used in face-to-face or distance learning environments.  These include ebooks on
secure digital media cards for access from handheld computers; OWLS Software
Development Kit; ASK (Assessing Student Knowledge) wireless quizzing system; and
standalone smart courses using artificial intelligence to provide a learning assessment,
prescription and self-directed content from course media.
J. Barry DuVall, 252-328-2430, duvallj@mail.ecu.edu
Matthew R. Powell, 252-328-4861, powellma@mail.ecu.edu

**Digital Resource Collection**
ECU's Digital Resource Collection (http://www.ecu.edu/drc) is a database that stimulates
interdisciplinary teaching and research by supporting the ECU community in
development of digital media.  The collection was partially inspired by the need to
archive and preserve a degrading slide collection in the School of Art.  The DRC holds
2,000 images contributed by faculty and students, and the collection is expected to grow
by 1,500 images annually.  Provision of funds, resources and time are the responsibility
of each contributor to the database, with the aid of the unit's instructional technology
consultant.  ECU originally purchased the Madison Digital Image Database to support the
initiative, but the software is now available as freeware from James Madison University
(http://cit.jmu.edu/mdidinfo/).
Pam Burton, 252-328-2198, burtonp@mail.ecu.edu


**Electronic portfolios**
ECU's special education program has developed an electronic portfolio model using
Lectora, a commercial software product, that streamlines portfolio compilation and
submission.  The completed portfolio is designed to include all the standards,
competencies and evidence that are required for state licensure.  Students enter video
clips, scan in material, insert digital photographs and deliver their final product on CD.
Evidence is assessed using a series of rubrics designed by faculty.
Sarah Williams, 252-328-1101, williamssar@mail.ecu.edu

**IT Consultants Network**
The instructional technology consultants (ITCs) within ECU's Virtual Environment for Learning offer services that promote, support and integrate digital technologies in teaching and learning. Rather than centralizing ITCs within one department, ECU assigns consultants with appropriate academic backgrounds to each professional school and the College of Arts and Sciences. ITCs (http://core.ecu.edu/vel/itc) offer one-on-one tutoring, conduct workshops, prepare print and electronic training materials, consult on course and project design, and serve as liaisons between faculty in their unit and other entities on campus. Led by a full-time coordinator, ITCs also collaborate as a group on campus wide initiatives, such as the distribution and maintenance of classroom technologies and the delivery of workshops. Faculty are also supported by ITCs in the University Multimedia Center, which provides high end graphics.
Chris Weaver, 252-328-1627, weaverch@mail.ecu.edu


**RAVE Virtual Reality Lab**
The Reconfigurable Advanced Visualization Environment, known as the RAVE, is a unique visualization tool that provides great flexibility and visual clarity for collaborative work with digital representations of physical objects, scientific simulation or experimental data. The first such system in North Carolina, this advanced technology permits the creation, display, expression and exploration of large complex data sets as a shared experience through an interactive three-dimensional visualization environment. The RAVE uses the combined power of the human eye and brain to discern relationships by presenting complex data as multidimensional color images and animation. It is used by faculty and students in art, interior design, chemistry, decision sciences, geography, industry and technology, nursing, medicine, physics and sociology.
Sandra Huskamp, 252-328-6885, huskamps@mail.ecu.edu


# Elizabeth City State University
**IDEA Stations**
ECSU and WCU collaborated on an assistive technology project that created IDEA Stations (Individuals with Disabilities Entitled Access Stations) on both the campuses. IDEA Stations provide access to technology for individuals who are wheelchair bound, have low vision or are blind, or have hearing impairments or are deaf. In addition to serving disabled students on the campuses, the model computer workstations act as demonstration units for K-12 pre-service and in-service teachers and higher education institutions across the state. IDEA Stations include magnification software, scanning equipment, screen reading software, and other equipment. A complete listing of software and hardware, along with online ADA resources and UNC assistive technology contacts, is available at http://www.unctlt.org/tlt/projects/grants1999/assistiveStatusRpt.pdf.
Susan Peck, 252-335-3592, sjpeck@mail.ecsu.edu
Beth Rodgers, 828-227-7111, rodgers@email.wcu.edu

# Fayetteville State University
**Corporate partnership**
FSU has developed a partnership with a national computer training company to provide students with additional exposure to IT content and work experience.  New York-based Micropower Computer Institute, which operates out of FSU's Fayetteville Business Center, offers classes to the community as well as FSU students who want to earn certification in various computer applications.  After completing courses at the institute, students are eligible for internships to gain hands-on experience.  The company's partnership with FSU is its first in North Carolina.
Floyd Shorter, 910-222-8915, fshorter@uncfsu.edu

# North Carolina A&T State
**Distance Education through eArmyU**
NC A&T State is the first UNC campus to participate in eArmyU, the U.S. Army's distance education program that allows soldiers to earn credits, degrees and certificates while they serve on active duty.  As a participating institution, NC A&T State offers courses leading to a B.S. in occupational safety and health.  Students pursuing the degree may take core courses from any of the other 22 colleges and universities participating in eArmyU and have credits transferred to NC A&T State as their home institution.  To support the online learning program, eArmyU (eArmyU.com) provides students with laptops as well as ISP and e-mail accounts.
Marlow Hinton, 336-256-0356, mhinton@ncat.edu

# North Carolina Central University
**Web Casting Telecourses**
NCCU is the first university in the country to receive permission to web cast telecourses originally produced for or by the Public Broadcasting System (PBS).  The web casts are used to support the university's birth through kindergarten undergraduate degree program.  Segments being integrated into the curriculum are selected by faculty from the Whole Child series, produced by PBS, and Models of Teaching: No Greater Calling, produced by UNC-TV and a collaborative partner.  An NCCU instructor introduces each segment.  Access to the web casts is password protected.  The "video on demand" approach is well received by students, who later join instructors for scheduled online discussions of the material.
Kimberly Phifer-McGhee, 919-530-7593, kpmcghee@wpo.nccu.edu

# North Carolina School of the Arts
**NCSA Digital Filmmaking**
NCSA's School of Filmmaking has made a full transition to digital filmmaking and non-linear digital editing.  First- and second-year students now shoot exclusively with digital cameras and edit using digital equipment. Third- and fourth-year students use 16mm film cameras but then finish their work using three state-of-the-art systems (Final Cut Pro, AVID DV Express and ProTools) to edit sound, music and effects and do final mixes.  In the final production stage, senior thesis projects are taken back to film print for industry screenings in New York and Los Angeles.  The new technology helps the campus stay

competitive and contributed to its being named one of the top five film schools in the United States by The Los Angeles Times.
Butter Fisher, 336-770-1386, fisherb@ncarts.edu

# North Carolina State University

**Assistive Technology and Web Accessibility**
Websites maintained by NCSU and UNC-CH highlight the universities' endeavors to serve individuals with disabilities, provide an accessible campus and educate the campus community.  Both NCSU and UNC-CH post guidelines and standards for accessible web design (http://www.ncsu.edu/it/dss/webaccess.html and http://www.unc.edu/webaccess/guidelines.html).  NCSU also posts help documents for assistive technology hardware and software (http://www.ncsu.edu/it/dss/help/index.html) and the locations of campus AT equipment and software (http://www.ncsu.edu/it/dss/at.html), as well as the results of an online survey of assistive technology practices at higher education institutions.  The survey covers the use of screen reader applications, screen magnification software, OCR/reading solutions, speech recognition and word prediction software, mouse alternatives, hands-free and speech-free input, and software-based writing tools.  Survey responses are available at http://www.ncsu.edu/it/dss/survey_report.html.
Tyler Kendall, 919-513-3556, tyler_kendall@ncsu.edu
Carolyn Kotlas, 919-962-9286, kotlas@email.unc.edu

**Closed and Open Captioning**
NCSU prepared a report that examines the needs, available technology, and specific solutions for providing open and closed captioning to multimedia and online instructional content.  For web content, hearing impaired individuals require captioning in order to comprehend the audio associated with continuous multimedia.  The report (http://lts.ncsu.edu/development/caption-report.htm) provides an overview of technologies for captioning of web-based content and an analysis of costs associated with captioning services.  The Americans with Disabilities Act requires accessibility of programs and services, including those delivered electronically and via information technology methods such as streaming media.  NCSU offers online tips for ensuring web accessibility (http://lts.ncsu.edu/development/accessibility.html).
Theresa-Marie Rhyne, 919-513-4623, tmrhyne@ncsu.edu
Lisa Fiedor, 919-513-4616, lisa_fiedor@ncsu.edu

**Digital Library Initiatives**
NCSU's Digital Library Initiatives Department integrates library and Internet resources into a versatile, unified system that provides efficient search capability across formats. The department leads the library in creating new digital services and collections, as well as new initiatives that integrate advanced web-based and multimedia resources into teaching and learning.  The Digital Media Laboratory enables users to create and develop digital instructional and research materials, and the Usability Research Laboratory offers state-of-the-art equipment capable of collecting video, audio and computer data in real time for observation and analysis.
Steve Morris, 919-515-1361, steven_morris@ncsu.edu

**Open Knowledge Initiative**
NCSU is a partner with several other major research institutions in development of a modular, easy-to-use, Internet-based environment for assembling, delivering and accessing educational resources.  Known as the Open Knowledge Initiative, the project adheres to the open source (non-proprietary) standard for software development.  The goal is to support faculty who are teaching in a traditional, hybrid or distance learning environment, while also providing a framework to stimulate innovative uses.  Ultimately, the Open Knowledge Initiative (http://www.web.mit.edu/oki) is expected to lead to new discoveries that will reshape how people learn on the Internet.
Lou Harrison, 919-515-7279, lou@ncsu.edu

**ResNet Support Program**
NCSU's  residential network (ResNet) help desk is staffed by 9 undergraduate students who are trained to answer ResNet or personal computer questions by phone, as well as provide field assistance for the 7,000 students living on campus.  ResTechs rotate phone duty with on-call hours to deliver on-site assistance. When on-call, ResTechs use two-way pagers and radios to ensure response to service requests, usually within 15 minutes. An online calendaring program helps staff schedule field appointments and track hours. During Fall move-in days, ResTechs and temporary student staff - generally former ResTechs - are available in residence halls to provide faster assistance.  ResTechs are paid for their services and attend a four-day training session.  Centralizing the ResNet help desk has enabled NCSU to improve response time and reduce staff size.
Stan North Martin, 919-515-1348, stan_martin@ncsu.edu

**Scholarly Communication Center**
The NCSU Libraries' Scholarly Communication Center (http://www.lib.ncsu.edu/scc) provides guidance to the library staff on fair use and other issues, including database licensing, user privacy, materials on reserve, interlibrary loan and document delivery services.  Staffed by a copyright and Internet law specialist, the center also serves as a resource on scholarly communication issues including copyright and fair use as they relate to library collections and services.  The center provides workshops and presentations on copyright, fair use, and other scholarly communication topics.
Peggy Hoon, 919-513-2045, peggy_hoon@ncsu.edu

**Synchronized Multimedia Integration**
At NCSU the term "synchronized multimedia integration" refers to online instructional content that combines traditional streaming video with original PowerPoint presentations and caption text.  Development relies on the collaboration of a team of videographers, computer programmers, faculty, course distribution staff, back-end IT server managers, distance education support, multimedia specialists, ADA disability experts and web designers.  After recording faculty presentations and producing a traditional streaming video, programmers then incorporate PowerPoint slides and caption text to enhance the video.  Content is recorded in seven to 10 minute modules, making it easier for students to access information and for faculty and the development team to update materials.  A multimedia users group meets monthly to keep abreast of new technologies through discussions and demonstrations.
Theresa-Marie Rhyne, 919-513-4623, tmrhyne@ncsu.edu

**Virtual Advising Center**
NCSU's Virtual Advising Center, more widely known as Advising Central, is a website that offers prospective and current undergraduate students a quick, convenient way to access academic information.  Launched in 1999 with funds from the student senate and NCSU's parent organization, Advising Central (http://www.ncsu.edu/advising_central) responds primarily to e-mailed questions about majors, minors and academic policies, but the staff also provides career counseling and refers visitors to other resources, such as departmental academic advisers.  More than 90 percent of questions are answered via e-mail, usually within 24 to 72 hours.  Students can also speak with virtual advisors on the telephone or meet with them in person.  In addition to its value to students, Advising Central provides a central administrative home for information about university policies, thus ensuring campus-wide access to updated and reliable information.  The three-member staff markets the website to students at freshman and transfer orientations.
Andrea Irby, 919-515-5594, andrea_irby@ncsu.edu

**Virtual Reference Desk**
NCSU Libraries uses commercially available software to enable librarians to escort patrons through a web search as they chat online in real time.  Virtual Reference Desk, software from LSSI, allows parties to share a web browser, which enables librarians to demonstrate to patrons – wherever they are – the process of searching for information through the libraries' website, online catalog, databases and electronic journals.  If the patron understands the process, the librarian closes the chat session and the patron continues activities independently.
Josh Boyer, 919-513-3655, josh_boyer@ncsu.edu

**WebAssign**
WebAssign is a web-based homework, quizzing and assessment tool developed at NCSU.  WebAssign (http://www.webassign.net) enables teachers to create assignments from a database of textbook questions or write and customize their own questions.  An automatic gradebook fills itself in as students complete assignments.  Teachers can give immediate feedback on student performance and post grades and comments in a secure environment.  WebAssign is commercially available and being used at hundreds of universities and schools across the country and abroad.   Typically, nearly 60,000 students worldwide log on to WebAssign each term and have more than 6 million homework submissions graded.
John Risley, 919-515-2524, risley@ncsu.edu

# UNC Asheville
**Smart Classrooms**
UNCA has 25 smart classrooms developed with economy and academic needs in mind.  UNCA estimates that its "economical smart classrooms" meet 80% of faculty needs with only 50% of a traditional budget.  Coordinators trim costs by thoroughly researching vendors and assessing the needs of faculty.  Bulk buying on everything from wiring to data projectors helps ensure the lowest cost and saves additional dollars.  Finding innovative solutions to common needs also helps UNCA stretch the IT budget.  For example, equipment is placed on standard state contract tables, rather than custom podiums, and protected with security cages built on campus.
Mike Honeycutt, 828-251-6453, honeycutt@unca.edu

# UNC-Chapel Hill

**Assistive Technology and Web Accessibility**

Websites maintained by NCSU and UNC-CH highlight the universities' endeavors to serve individuals with disabilities, provide an accessible campus and educate the campus community. Both NCSU and UNC-CH post guidelines and standards for accessible web design (http://www.ncsu.edu/it/dss/webaccess.html and http://www.unc.edu/webaccess/guidelines.html). NCSU also posts help documents for assistive technology hardware and software (http://www.ncsu.edu/it/dss/help/index.html) and the locations of campus AT equipment and software (http://www.ncsu.edu/it/dss/at.html), as well as the results of an online survey of assistive technology practices at higher education institutions. The survey covers the use of screen reader applications, screen magnification software, OCR/reading solutions, speech recognition and word prediction software, mouse alternatives, hands-free and speech-free input, and software-based writing tools. Survey responses are available at http://www.ncsu.edu/it/dss/survey_report.html.

Tyler Kendall, 919-513-3556, tyler_kendall@ncsu.edu

Carolyn Kotlas, 919-962-9286, kotlas@email.unc.edu

**Carolina Computing Initiative**

The Carolina Computing Initiative at UNC-CH is a comprehensive program to provide laptops to students and computers to faculty, teaching assistants and staff through a plan that combines negotiated pricing, financing, service and support. At the center of the initiative (http://www.unc.edu/cci/index.html) is a requirement that freshmen and transfer students own a laptop computer that meets university specifications, which change annually. CCI's special computer agreement with IBM includes hardware, software, an extended warranty, and an insurance and security package. Machines are available for purchase through the campus bookstore. Loans and grants are available to students who document financial need. Although students may purchase up to one laptop a year at the discounted price, faculty develop courses to the hardware specifications that students buy as freshmen, thereby eliminating the need for annual upgrades. CCI also includes a life-cycling plan for faculty and staff desktop computing that calls for one-third of the machines to be replaced every three years.

Linwood Futrelle, 919-962-5265, linwood@email.unc.edu

**Digital Library Project**

The Digital Library Project at UNC-CH is working to institute a set of web-based tools and services to help instructors and researchers manage their media collections and promote resource-sharing across disciplines. Services include guidelines and solutions for the digitization, storage, retrieval and effective use of images, audio files and other digital objects. Digital Library Services (http://www.unc.edu/projects/diglib), now being piloted in several departments on campus, is more than just a repository for storing digital assets. The infrastructure makes it possible for scholars to present these materials in ways that promote understanding and learning. A long-term goal is to explore opportunities for resource sharing across institutions.

Robert Henshaw, 919-962-5324, bhenshaw@email.unc.edu

**Documenting the American South**
UNC-CH's Documenting the American South (DAS) is an award winning collection of sources on Southern history, literature and culture from the colonial period through the first decades of the 20th Century.  The searchable database (http://docsouth.unc.edu) includes six digitization projects: slave narratives, first-person narratives, Southern literature, Confederate imprints, materials related to the church in the black community, and North Carolina. As of Fall 2002, DAS included 1,178 books and manuscripts, most of which came from the university's extensive Southern holdings.  An editorial board guides the collection's development.
Natasha Smith, 919-962-9590, nsmith@email.unc.edu

**FACET**
UNC-CH's FACET software supports paperless, peer-reviewed document preparation by providing an online management system for the collection, storage and distribution of draft documents and critiques among groups of participants.  FACET (File and Commentary Exchange Tool) helps students, teachers and staff organize themselves into private groups, then share messages and documents with other participants within those groups.  When used for teaching, every section of a course is a group and any group can have subgroups, which can be used for labs, study groups or team projects.  FACET (http://facet.unc.edu) was originally developed for freshman composition courses and is now available to faculty and staff campus wide.
Todd Taylor, 919-962-2248, twtaylor@email.unc.edu

**Locating Technology Resources**
UNC-CH offers a fast, convenient way to find technology resources on campus.  It's called Compass, a database of  IT information and services posted on the campus website (http://www.unc.edu/faculty/tic/).  Users can search the database by keyword or browse through subject areas that include instructional support, Internet services and legal issues.
Diane Strauss, 919-962-1301, dstrauss@email.unc.edu

**Online Skills Test**
Faculty across the UNC-CH campus can evaluate a student's readiness for an online course or web-based course component by customizing a series of six online tests.  The online skills test (http://oddjob.oit.unc.edu/skillstest) can assess a student's browser, RealPlayer, PDF, Flash, and Internet and Blackboard skills.  In addition, the URL notifies students that upgrades are needed if a component fails.  Help links and Flash demonstrations guide students through the basic operations used to navigate the web.  Faculty may require that students verify successful completion of the test by printing a certificate.  Originally developed for use in the School of Public Health, the online skills test is credited with significantly reducing the time faculty spend on troubleshooting technical questions.
David Potenziani, 919-966-9761, david_potenziani@unc.edu

# UNC Charlotte

## Communicating in Cyberspace

An estimated 95 percent of the interaction in e-Learning occurs through writing (PowerPoint slides, chat/discussions, e-mail, presentation materials).  UNCC's University Writing Programs sponsors workshops that help faculty understand the importance of effective writing in e-Learning.  The 2002 Wildacres faculty writing retreat focused on communicating in cyberspace and included workshops on facilitating online chat and discussion groups, designing learning materials for screen reading, usability testing in designing online courses, and using desktop software for online learning.
Deborah S. Bosley, 704-687-3502, dsbosley@email.uncc.edu


## Information Commons

The Information Commons at UNCC's Atkins Library integrates in design and function the library's physical facilities, informational resources, technological resources, production resources and support services.  The approach offers patrons – from novice freshmen to advanced research scholars – a seamless environment for planning, researching and producing their work.  The Information Commons provides one-stop shopping for research, production and presentation activities in various media (print, sound, still and moving image), and it assists researchers in identifying, reformatting and manipulating data in a variety of formats.  In addition, the Information Commons (http://libweb.uncc.edu/library/infocom) collaborates with the Faculty Center for Teaching to provide special research and instructional support and informational services.
Russ Bailey, 704-687-3666, rbailey@email.uncc.edu


## Library Laptop Project

UNCC is using laptop computers in the library to provide students with a new way to learn how to conduct research using the flexibility of a wireless network.  The laptops act as a mobile computer classroom, enabling librarians to combine demonstration, hands-on activities and group projects in a classroom or at locations throughout the library's wireless network, which was created to support the laptop project.  When not in use, the project's 20 laptops reside on a cart for easy storage, security, recharging and transportation.  Initiated in Fall 2001, the laptop project was partially funded by the Teaching and Learning with Technology Collaborative.
Russ Bailey, 704-687-3666, rbailey@email.uncc.edu


## MERLOT Faculty Training

UNCC has adopted MERLOT as an integral part of its strategy to integrate technology into teaching and learning.  After attending a MERLOT conference, campus representatives developed a strategy to imbed MERLOT into the faculty support process through a comprehensive series of activities.  Rather than rely on a single workshop to illustrate MERLOT's merits, UNCC's strategy integrates MERLOT's benefits across the campus and throughout the year to library faculty, library liaisons, distributed IT staff, Faculty Center for Teaching and Learning, distance education and WebCT administration.
Sallie Ives, 704-687-3021, smives@email.uncc.edu

**Palm Pilots in the Library**
UNCC is using Palm Pilots to provide fast, convenient assistance to library patrons. Dubbed "Palm Pilot Rovers," the librarians and other public service library staff who circulate throughout the facility use the devices as portable information desks that enable them to answer questions much as they would if they were sitting at a public service desk.  UNCC synchs the nine Palm Pilots to a web site specially created to support the initiative. The project is funded by a grant from the Teaching and Learning with Technology Collaborative and UNCC.
Russ Bailey, 704-687-3666, rbailey@email.uncc.edu

# UNC Greensboro
**Business School Handheld Computer Pilot Program**
UNCG's Bryan School of Business and Economics has a partnership with eLearning Dynamics that pairs LearnTrac, a patented software application, with Palm Pilots.  The software and handheld devices enable students to respond to their professor in class without saying a word.  Their electronic responses are immediately sent to the instructor's personal computer or console, which reveals and tracks students' progress in real-time as well as the duration of the course.  Within seconds, instructors know how each student responded to a query, what percentage of the class answered correctly and who needs additional help.  A projector displays the results to students.  The LearnTrac model is based on ViewTrac, a technology used at the Academy of Television Arts and Sciences in Los Angeles, and by many cable and television networks, to make programming decisions based on data provided by viewers.  This system is also used by professional polling agencies to assess voter opinions.
Ray Purdom, 336-334-5078, rcpurdom@uncg.edu

**German Internet Project**
The German Internet Project at UNCG provides a storehouse of useful interdisciplinary German resources on its popular web site (http://www.uncg.edu/gar/).  The German Studies Trails on the Internet (http://www.uncg.edu/~lixlpurc/german.html) and the site's literature sections are particularly useful for visitors who like to explore the Internet as a virtual language laboratory or engage in research and study projects.  Visitors also can join German chat rooms, complete German web exercises on various levels of proficiency and locate multimedia teaching tools.  Younger visitors and novice German students can connect to children's pages on the site's KinderWeb (http://www.uncg.edu/~lixlpurc/school/Kinder.html).
Ray Purdom, 336-334-5078, rcpurdom@uncg.edu

**Journal Finder**
UNCG's Journal Finder provides immediate access to more than 9,000 electronic, full-text journals, magazines and newspapers, making it a service that dramatically reduces the time and guess work required to locate journal titles.  Launched in Fall 2001, this groundbreaking database (http://library.uncg.edu/journalfinder/) also provides information about the library's print holdings, document delivery options through interlibrary loan, and document delivery service.  UNCG holds a patent on Journal Finder

and is marketing the database to other universities.  It was created by the library's Electronic Resources and Information Technology Department.
Tim Bucknall, 336-334-4238, bucknall@uncg.edu

### News and Newspapers Online
One of UNCG's most popular databases is News and Newspapers Online, a collection of links to thousands of newspapers and news websites around the world that offer free access to current, general interest, full-text news.  Visitors may create and edit personalized lists of news resources in a variety of languages, which makes the site useful for researching news from any part of the world or studying a foreign language.  News and Newspapers Online (http://library.uncg.edu/news/), which records 10 million hits a year, is the recipient of numerous awards, including recognition by Library Journal as one of the 10 Best Reference Web Sites.
Tim Bucknall, 336-334-4238, bucknall@uncg.edu

### Online Library Research Tutorial
UNCG's library has a web-based tutorial (http://library.uncg.edu/depts/ref/tutorial) that provides research skills instruction to students and others who cannot attend in-house instruction.  In addition, the tutorial provides faculty with a tool to use in conjunction with a library visit to ensure students possess basic research skills, thereby allowing in-library time with students to be more project-oriented and therefore more productive.  The tutorial is comprised of a progressive set of six interactive modules, each of which takes 20-30 minutes to complete.  At the end of each module is a test to reinforce concepts.  To capture student interest, each module is introduced with a light-hearted conversation between fictional students working on research projects.
Tim Bucknall, 336-334-4238, bucknall@uncg.edu

### Race and Slavery Petitions Project
UNCG's Race and Slavery Petitions Project is building a database of more than 15,000 county court petitions and 40,000 related documents from the 15 former slaveholding states and the District of Columbia during the period from the American Revolution through the Civil War.  Project coordinators are using Oracle to manage 120,000 pages of documentary evidence that includes writs, subpoenas, answers, depositions, court orders and opinion, decrees, reports, wills, inventories, appraisements, hiring contracts and bills of sale.  Established in 1991, the Race and Slavery Petitions Project (http://history.uncg.edu/slaverypetitions) has received support from the National Historical Publications and Records Commission, the National Endowment for the Humanities, the Charles Stewart Mott Foundation and UNCG funding.
Loren Schweninger, 336-334-3654, llschwen@uncg.edu


# UNC Pembroke
### Brave Tech Program
UNCP launched its Brave Tech Program in Fall 2002 to meet the growing needs of computer users on campus and to supplement permanent technical staff.  The student technicians diagnose and repair computer systems in offices and students labs, provide user support, and install and troubleshoot software.  A two-week training program prepared the 12 students to serve as Brave Techs, a name that comes from the university's

athletic teams.  The paid positions were open only to students with previous experience troubleshooting hardware and software.  Students are required to work 10 hours per week in a minimum of three-hour blocks.
Maureen Windmeyer, 910-521-6260, maureen.windmeyer@uncp.edu


# UNC Wilmington
### iLumina Digital Library
UNCW's iLumina is a digital library of undergraduate teaching materials for science and mathematics.  iLumina (http://www.ilumina-dlib.org) contains more than 1,500 individual resources and more than 16 virtual collections covering biology, chemistry, computer science, mathematics and physics.  Resources are contributed by faculty throughout the United States.  iLumina is funded by a $1.1 million grant from the National Science Foundation as part of the National Science Digital Library.
Dick Ward, 910-962-3216, ward@uncw.edu

### Online Course Development
UNCW offers faculty an "Online Course Course" (http://cte.uncwil.edu/occ) that documents the pedagogical and technological significance of key elements in an online course.  The elements serve as a checklist (http://www.uncwil.edu/itsd/online/wcdt/checklist  of the requirements that online courses should meet.  The university's Center for Teaching Excellence also provides guidelines for online courses (http://www.uncwil.edu/itsd/online/wcdt/criteria.htm) and a web skills development check list (http://www.uncwil.edu/itsd/online/wcdt/web_page_development_skill_checklist.htm) that review skills faculty should possess to teach an online course.  Online tutorials (http://cte.uncwil.edu/how2/index.htm) also provide faculty support in the development of new courses.
Patty Turrisi, 910-962-7392, turrisip@uncw.edu

### Web Course Development Team
UNCW has a self-sustaining, faculty-driven model for the development of online courses (http://www.uncwil.edu/itsd/online/wcdt).  Faculty who are trained in the development of web-based materials receive a stipend to serve as mentors to a cohort of 15 to 20 faculty whose course proposals meet the university's criteria for new online offerings.  During the spring and summer, the selected faculty attend workshops conducted by the mentors that result in fully developed courses to be offered the following fall or spring semester. A leader, two faculty associates, and Information Technology Systems Division staff guide the development team through the process.
Jeff Jolly, 910-962-4015, jolly@uncwil.edu


# Western Carolina University
### Computer Requirement
WCU requires all newly admitted, degree-seeking undergraduate students to have a desktop or laptop networkable computer. The university initiated the requirement (http://admissions.wcu.edu/compreq.html) in Fall 1998 and extended it to cover readmitted students in Fall 2001. Hardware and software specifications are updated

annually.  Financial aid budgets cover the cost of meeting the computer requirement for students with documented need.
Larry Hammer, 828-227-7317, hammer@wcu.edu

**IDEA Stations**
ECSU and WCU collaborated on an assistive technology project that created IDEA Stations (Individuals with Disabilities Entitled Access Stations) on both the campuses. IDEA Stations provide access to technology for individuals who are wheelchair bound, have low vision or are blind, or have hearing impairments or are deaf.  In addition to serving disabled students on the campuses, the model computer workstations act as demonstration units for K-12 pre-service and in-service teachers and higher education institutions across the state.  IDEA Stations include magnification software, scanning equipment, screen reading software, and other equipment.  A complete listing of software and hardware, along with online ADA resources and UNC assistive technology contacts, is available at http://www.unctlt.org/tlt/projects/grants1999/assistiveStatusRpt.pdf.
Susan Peck, 252-335-3592, sjpeck@mail.ecsu.edu
Beth Rodgers, 828-227-7111, rodgers@email.wcu.edu

**Jump Start Training**
WCU requires all entering students to attend Jump Start Training, a two-hour computer workshop held immediately prior to the beginning of classes.  Jump Start provides instruction in basic computing concepts, including the campus network, e-mail, browsers, and the university's administrative software.  The workshop also gives an introduction to web page design to help students take advantage of web space offered to them.  Jump Start is coordinated by the Student Technology Assistance Center, which offers small group workshops and personal tutoring on a range of software applications.
Chris Snyder, 828-227-2258, csnyder@email.wcu.edu

**Residential Computing Consultants**
The Residential Computing Consultants program at WCU, initiated in Fall 1998, employs about 20 students each academic year to provide first-line technical support to the university's 3,000 students living on campus. RCCs have responsibility for assigned floors in residence halls and are on call 8:00 a.m.-5:00 p.m., with some flexibility for answering night and weekend calls. RCCs assist students with network and software issues and provide consultation on e-mail, web access and purchasing decisions.  They also serve as liaisons with computer manufacturers when warranty issues arise.  RCCs attend a week of training prior to the fall semester.
Scott Swartzentruber, 828-227-7282, scotts@wcu.edu


# Winston-Salem State University
**Access Grid**
ECU and WSSU have Access Grid (AG) nodes.  The AG (http://www.accessgrid.com), an Internet2 application, supports large-scale distributed meetings, collaborative work sessions, seminars, lectures, tutorials and training.  The AG enables higher education institutions, supercomputing centers, science and engineering laboratories, and corporate leaders around the world to form virtual communities by linking to one another in "persistent electronic spaces."  The AG complements the computational grid by providing

group-to-group communication.  Argonne National Laboratory, a U.S. Department of Energy lab operated by the University of Chicago, developed the AG. There are more than 130 AG sites worldwide.
Sandra Huskamp, 252-328-1121, huskamps@mail.ecu.edu
Stephen Maat, 336-750-2239, maats@wssu.edu

**PDA Requirement for a Wireless Campus**
The entire WSSU campus (including residence halls) is wireless as well as hard-wired (Fall 2002).  Plans are under way to implement in Fall 2003 a personal digital assistant admission requirement, in which all freshmen will be required to have a wireless PDA that meets WSSU specifications.  The PDAs will be used for instructional purposes to provide active learning opportunities for students both inside and outside the classroom. Selected faculty and students have participated in several pilot programs using PDAs since Fall 2000.
Joyce Williams-Green, 336-750-2092, wmsgreenj@wssu.edu