

Annual Report
Learning Technology Service
AY2002-2003

The Learning Technology Service¹ supports faculty, staff and students in the use of technology for teaching and learning, with resources appropriate to each learning environment and each discipline. During AY02-03, the LTS consisted of three service groups: Faculty Development Services, Online Instructional Programs, and Technology Development.

LTS Faculty Development Services provides training and consultations in emerging tools and technologies for faculty, staff, and graduate students engaged in teaching and learning with technology (TLT). This group conducts instructional house calls, regular workshops, seminars and custom training, and provides TLT web resources to the university community.

LTS Online Instructional Programs (OIP) collaborates with faculty and staff to design and develop effective technology-rich learning materials by identifying instructional challenges and developing solutions consistent with instructional design principles and theory. Programs and services include instructional design and development services, project management services (including DELTA IDEA grants) and resources related to the development of online courses and programs.

LTS Technology Development provides learning technology infrastructure for NC State, including learning management systems and the distance education student portal. This unit works closely with other groups within DELTA and across the campus to provide a technology rich infrastructure for teaching and learning.

Major Accomplishments for all of LTS

- Hosted a campus-wide discussion about the learning management systems and defined a path for enterprise-level implementation, to be completed by 2006, including the creation of an LMS (Learning Management System) Transition Team
- Launched the redesigned LTS website
- Provided leadership for "Learning in a Technology-Rich Environment", NC State's quality enhancement plan towards reaffirmation of accreditation, to be submitted to the Southern Association of Colleges and Schools (SACS) in January 2004

Challenges in LTS

- Finding appropriate and adequate funding sources for TLT activities and infrastructure
- Maintaining an appropriate balance between distance education and on-campus TLT support
- Providing adequate TLT service to the campus and support services to DELTA with the current level of LTS staff
- Preparing to support and service NC State's LITRE plan

¹ For more information, see: <http://lts.ncsu.edu>

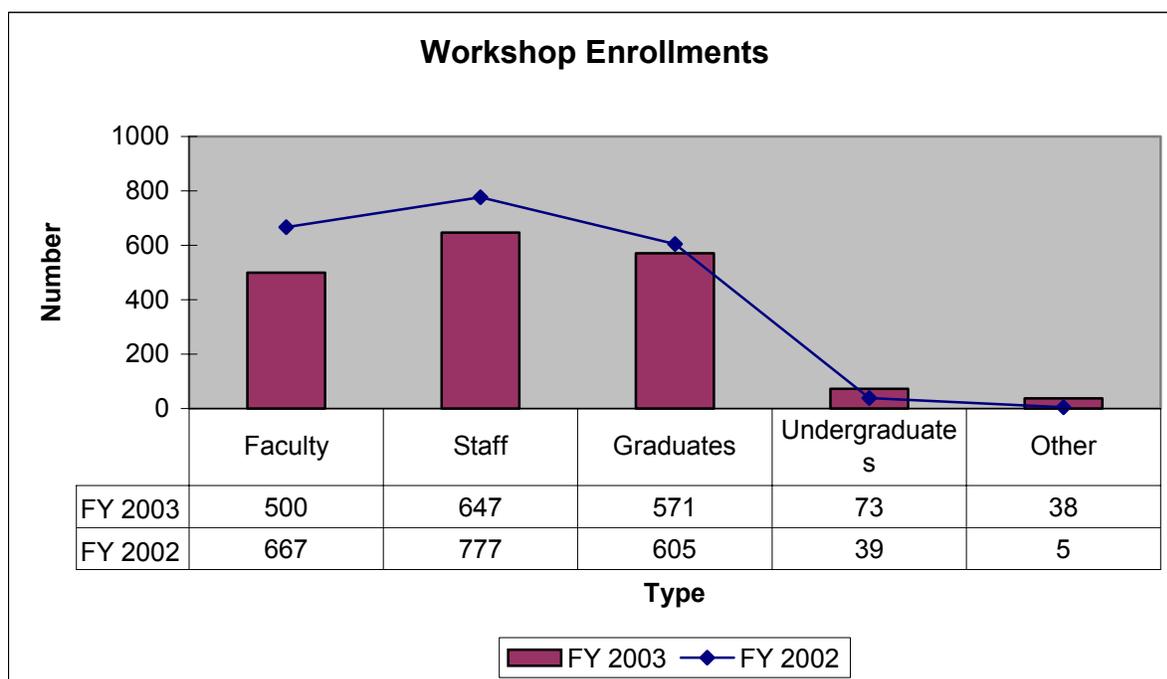
FACULTY DEVELOPMENT

Faculty Development Services, within the Learning Technology Service, offers regularly scheduled, seminars and programs, customized workshops for groups, departments, and colleges, instructional house calls and walk-in consultations. Normal hours are 8 a.m. to 5 p.m., throughout the year, with some evening workshops scheduled from 5:30-8pm. Offices are located in the Learning Research Center for the Digital Age (LRCDA) on the second floor of the east wing in D.H. Hill Library.

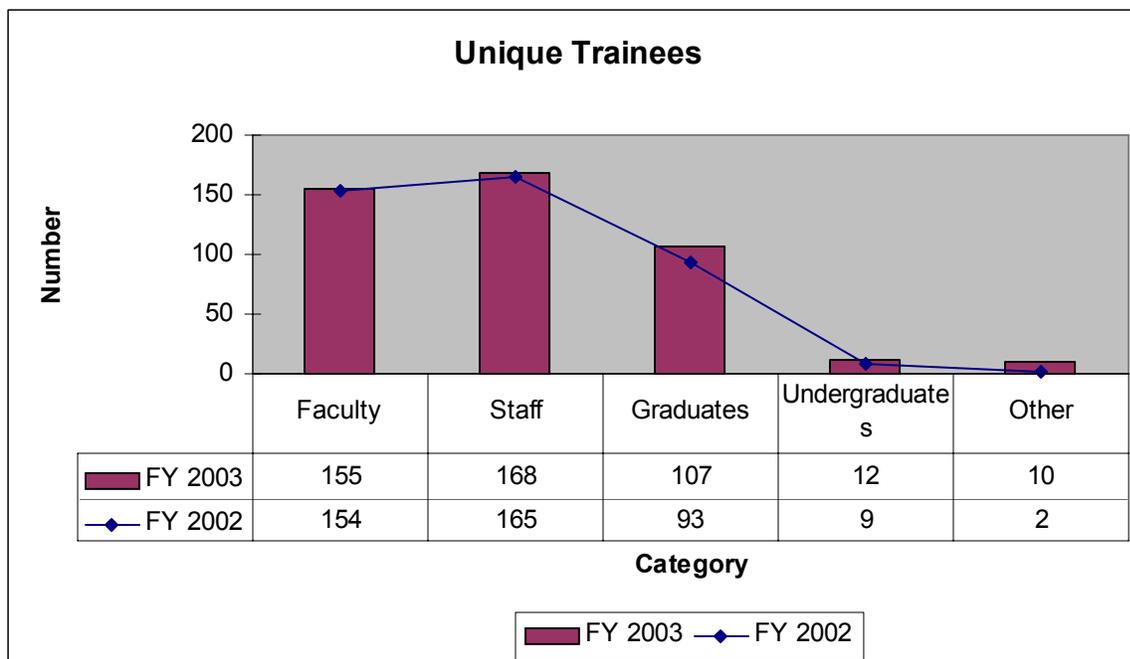
The Workshop Registration System tracks regularly scheduled workshops. Other programs are tracked separately. Help desk calls to the Learning Technology Service are tracked via Remedy. Beginning July 1, 2003, we began tracking our Instructional House calls (which might entail a walk-in consultation, a visit to a faculty member's office, and substantial email and phone calls) via a new tracking system.

Regular Workshops

In FY02-03 (1 June 02 – 31 May 03, based on Summer 02, Fall 02, and Spring 03 workshop schedule cycles), we had 1829 enrollments in our workshops. 452 unique faculty, students and staff engaged in instruction were supported in FY02-03 via regularly scheduled workshops and seminars, representing an **increase of approximately 7% unique trainees**. While supporting more unique trainees in FY02-03, there were fewer workshop enrollments this fiscal year compared to FY01-02, with **overall enrollments down about 12.6%**. From May 02 to March 03, Faculty Development Services staff had significantly reduced access to training facilities and faculty during the renovation of the LRCDA. Also, our revised tracking system captures only regular workshop activities and no longer includes custom training services.



Of our unique trainees, 155 of these participants were instructional faculty, 168 were instructional support staff, and 107 were graduate students, a similar distribution of faculty and staff as last year, and a 15% increase in the number of graduate students in our regular workshops.

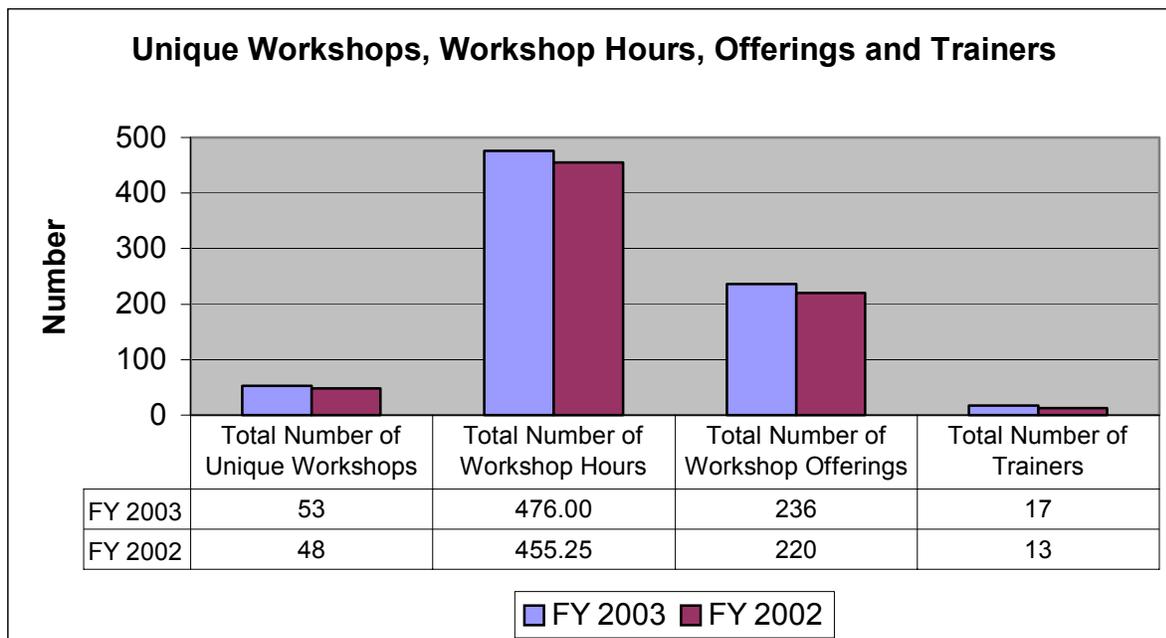


Overall Enrollments and Unique Trainees for scheduled workshops in FY 2002-2003

Annual Workshop Enrollments & Unique Trainees	FY 02-03	FY 01-02*
Total Number of Workshop Enrollments	1829	2093
Total Number of Faculty Enrollments	500	667
Total Number of Staff Member Enrollments	647	777
Total Number of Graduate Student Enrollments	571	605
Total Number of Undergraduate Enrollments	73	39
Total Number of Other Enrollments	38	5
Percentage of Enrollments: Faculty Members	27.3%	31.9%
Percentage of Enrollments: Staff Members	35.4%	37.1%
Percentage of Enrollments: Graduate Students	31.2%	28.9%
Percentage of Enrollments: Undergraduates	4.0%	1.9%
Percentage of Enrollments: Others	2.1%	0.2%
Total Number of Unique Trainees	452	423
Total Number of Faculty Members Trained	155	154
Total Number of Staff Members Trained	168	165
Total Number of Graduate Students Trained	107	93
Total Number of Undergraduate Students Trained	12	9
Total Number of Others Trained	10	2
Percentage of Unique Trainees: Faculty Members	34.3%	36.4%
Percentage of Unique Trainees: Staff Members	37.2%	39.0%
Percentage of Unique Trainees: Graduate Students	23.7%	22.0%
Percentage of Unique Trainees: Undergraduate	2.7%	2.1%
Percentage of Unique Trainees: Others	2.2%	0.5%

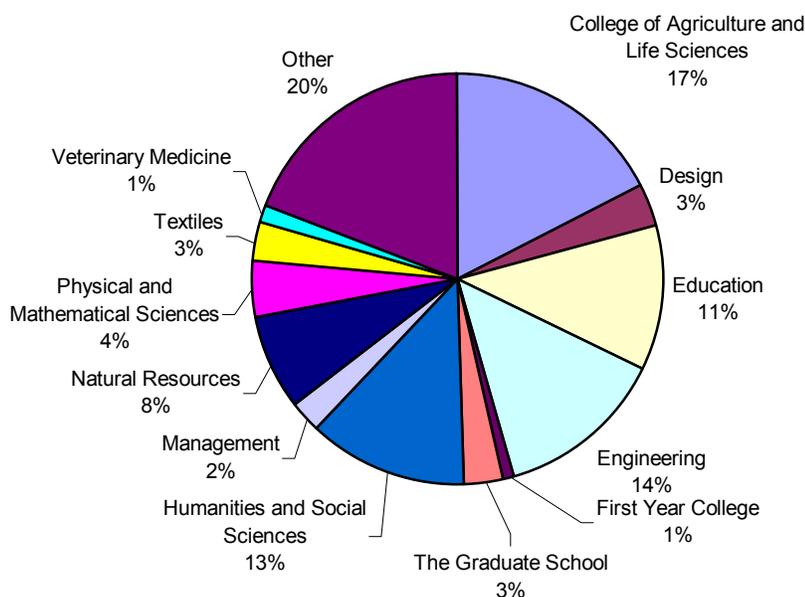
In FY02-03, we had 236 scheduled workshop offerings consisting of 53 unique workshops, including the introduction of sixteen newly created workshops. New sessions during FY02-03 include sessions related to Handheld Computing, FERPA, Distance Education classrooms, Dreamweaver, Fireworks, and Flash MX, Flash Actionscripting, Illustrating Instructional Concepts with Interactive Diagrams, Synchronous Tools, and Web Video Basics. Training topics in our regularly scheduled workshops in FY 2003 included: Design & Usability; Web Page Creation, Web Site Management and Tools; Graphics and Multimedia; Online Quizzing, Testing; Teaching with Technology Seminar Series, Handheld Computing, and Additional Technologies.

We utilized 17 trainers during this time frame, and provided a total number of 476 workshop hours. We had a "No Show/Cancellation" rate of around 15% (a 1% decrease from FY01-02), and we cancelled 14 workshop instances for reasons including instructor absence, instructor illness and low enrollments for particular instances of workshops. We rescheduled eleven sessions; five due to NCSU operating under Adverse Weather Policy; two, to allow the instructors to attend the campus-wide LITRE forum; two, to allow one of the instructors to present at the TLT Conference in Greensboro; one due to the instructor having a family emergency; and one due to a software problem in the ITTC lab.



College participation in regular workshops for FY02-03 is indicated on the graph below. Overall college participation in our regularly scheduled workshops has increased in the colleges of Design, Education, Veterinary Medicine, and Engineering, with a decrease (CALs, FYC, Graduate School, CHASS, Management, PAMS, Textiles) or no change (Natural Resources) in other colleges.

FY 2003 Participant Demographics by College



Participant Reaction to Workshops

The LTS surveys all workshop participants using an online evaluation form after each workshop. The following summary data pertinent to participant reaction to our workshops is summarized from Summer 2002 – Spring 2003 workshops (84% response rate, n=1344).

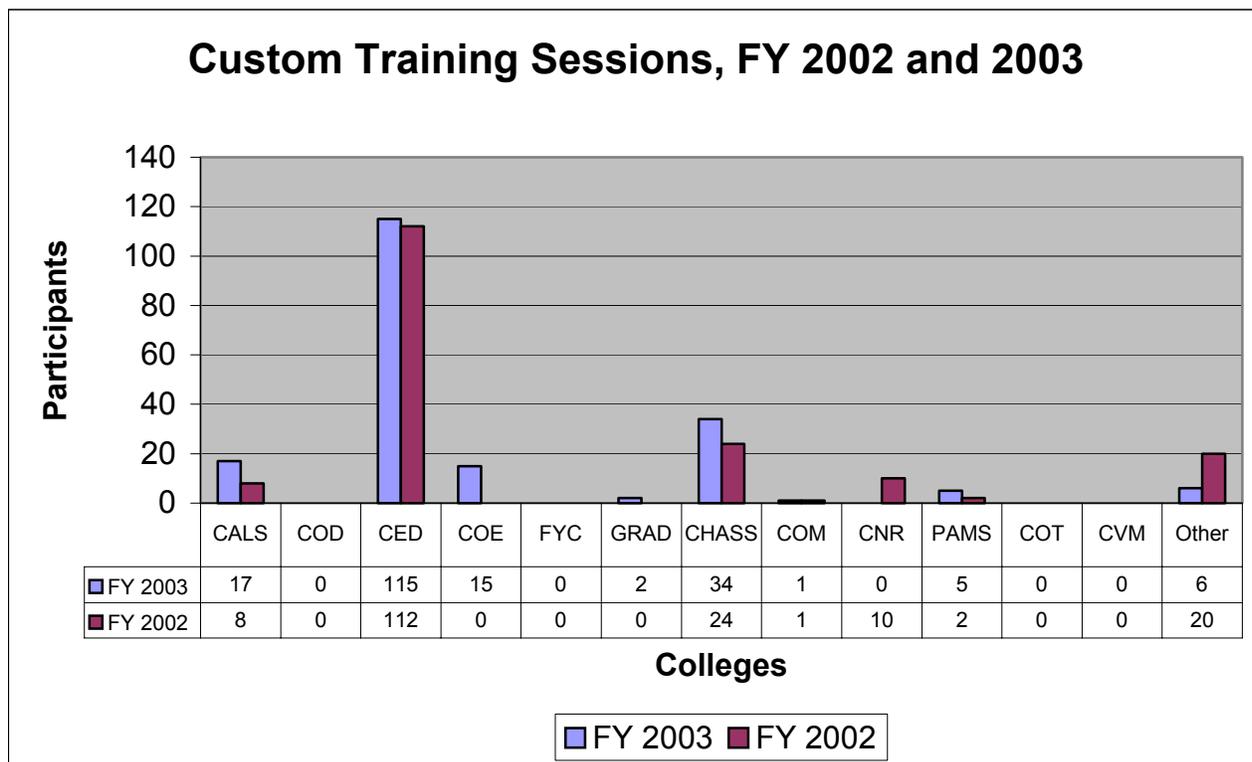
- ✓ 94.9% of all participants agreed or strongly agreed that the content covered in the workshop attended was appropriate and relevant to their needs.
- ✓ 96.7% of all participants agreed or strongly agreed that the content was what was advertised.
- ✓ 94.8% of all participants agreed or strongly agreed that the workshop met their overall expectations.

Custom Training Sessions

In FY01-02, the LTS began offering custom training sessions to faculty, staff and graduate students engaged in online/enhanced technology instructional activities. Last year, those sessions were tracked in conjunction with regularly scheduled workshops. This year, those activities are tracked separately.

Approximately 177 unique faculty, students and staff engaged in instruction were supported in FY01-02 by the LTS through custom training sessions. As we expanded this program in FY02-03, we divided custom training into two categories: Custom Training (Hands on workshops/sessions for faculty, staff

and students) and Overviews (overviews on various tools, such as WebCT, for students/classes at the request of faculty members). In FY02-03, we served 126 participants in custom training and 69 participants in overview sessions, for a total of 195 participants, an overall increase of 10.2% over FY01-02. In addition to these sessions, our staff provided program support to the first T&D online Masters cohort, training this group in Dreamweaver, WebCT, and ACCE competency standards July 23-25, 2002.



Consulting Services

Our consulting services include phone and email support and instructional house calls that consist of in-depth assistance to faculty members either in their office or ours. We continued offering individual consulting services to faculty and their support staff engaged in online/enhanced technology instructional activities. In FY02-03, the faculty development group, including our part-time students, participated in approximately **1101** emails, phone, and in-person help calls and consultations. This number was obtained from a review of Remedy Calls (417) and Instructional House Calls noted on the LTS Monthly Reporting System (684) for FY02-03. This represents an **increase of almost 61%** over last year's documented number of support calls of 670. The increase reflected is due to better documentation of services as well as an increased volume of clients. With our new Instructional House call system in place as of July 1, 2003, we will be able to track Instructional House calls by college and department over the next fiscal year.

ITAP Program

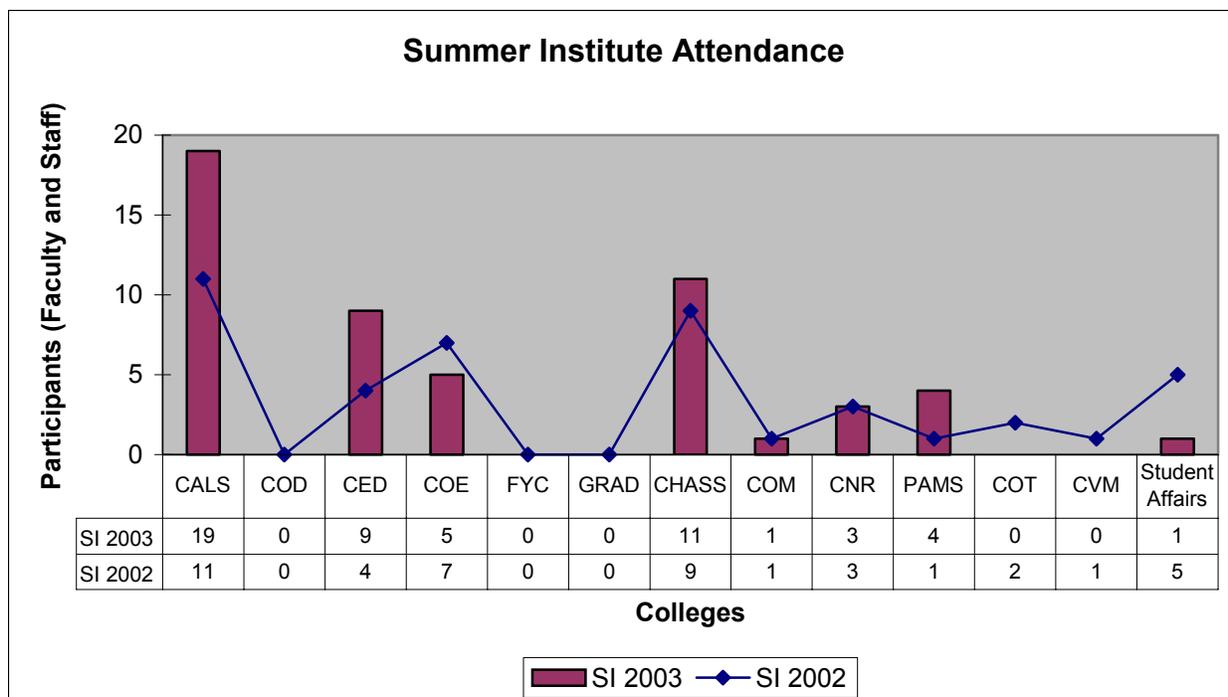
45 staff and graduate students engaged in supporting faculty in instructional technology were certified via the ITAP program. Registrations for the ITAP program saw a **13.5% decrease** between FY01-02 and FY02-03. The ITAP graduation rate decreased by 12% (from 76% to 64%) during this same time period. A report on ITAP, representing the completion of a DELTA compact plan initiative (see http://portaldev.ncsu.edu/intranet/filesys/file_info.cfm?id=284) indicates that ITAP is a well received

program that positively impacts its graduates and those they work with. With the staff member responsible for the program on family medical leave during Fall 2002, the LTS did not aggressively market this program in FY02-03. College participation in ITAP follows:

College	FY 02-03	FY 01-02
Agriculture and Life Sciences	8	16
Design	1	0
Education	16	13
Engineering	3	3
First Year College	0	0
Humanities and Social Sciences	6	8
Management	0	3
Natural Resources	3	7
Physical and Mathematical Sciences	3	2
Textiles	0	0
The Graduate School	0	0
Veterinary Medicine	2	0
Other	3	0

Summer Institute

Demand for the Summer Institute (SI) on Teaching and Learning with Technology increased. This year's SI had more registrations than seats available. 50 faculty and 5 support staff accepted invitations. Actual attendance dropped (caused by family emergencies) on the first day of the Institute. This year, there were 53 participants compared to 45 participants in FY01-02 (40 faculty and 5 staff), a **17.8% increase**. The increase in interest may be related to Distance Education incentive program, which offered monetary support to faculty for the development of an online course or a distance education course by Fall 02.



Major Accomplishments in Faculty Development Services

In FY02-03, Faculty Development Services realized several major accomplishments. They include:

- Completing most of our outlined DELTA Compact Plan Initiatives, with all initiatives showing progress:
 - COMPLETE: Supported the use of wireless technology. Ensured one of our staff members, Ray Brown, received certification as a PALM Education Training Coordinator, that our workshop schedule began holding PALM training sessions, and that we were available for custom training sessions and consultations in handheld computing.
 - COMPLETE: Launched the Faculty Development Outreach Initiative. Videotaped a total of 18 seminars that are now regularly viewed on Channel 18. See <http://delta.ncsu.edu/lts/resources/services/instservices/facdevinitiative-expanded.cfm> for the schedule. Created a companion website where streaming media files of the lectures are available. See http://lts.ncsu.edu/resources/online_courses/index.cfm.
 - COMPLETE: Assessed the Summer Institute and ITAP programs. Complete reports of these programs are available at: http://portaldev.ncsu.edu/intranet/filesys/file_info.cfm?id=284 (ITAP) and http://portaldev.ncsu.edu/intranet/filesys/file_info.cfm?id=306 (Summer Institute - Formative Evaluation) and http://portaldev.ncsu.edu/intranet/filesys/file_info.cfm?id=335 (Summer Institute - Post Evaluation)
 - COMPLETE: 2003 Web Accessibility Report for online DE courses, see: http://portaldev.ncsu.edu/intranet/file_info.cfm?id=299
 - IN PROGRESS: Participated in building the LRCDA. We moved into the LRCDA (Learning and Research Center for the Digital Age] in March, 2003, and have enjoyed the camaraderie and synergy of being back together as a group. We are working with our DLI partners in staffing and assisting in the Digital Media Lab. The managers of both groups have regularly scheduled meetings, and we plan to co-host a TLRN event in October. We will continue to build relationships and collaborative services and efforts in this space.
 - IN PROGRESS. Implemented a Faculty Development Management System. We completed a

registration and tracking systems for Instructional House Calls and began using this system on July 1, 2003. Our workshop and registration system still needs some work to assure efficiencies in reporting, which will require support from other LTS groups.

- 5th Annual Teaching and Learning with Technology Summer Institute 2003
- Launched the Distance Education Incentive Program, within Summer Institute, and continue support for faculty who participate in that program
- Received staff training in Remedy and wrote internal policies to increase usage of this system for tracking
- Wrote internal policies for better documenting Instructional House Calls and Help Calls
- Created a Learning Management System Advisory Committee, comprised of teaching faculty, to support and advise work on the university's learning management systems.
- Continued running three full workshop schedules (Summer, Fall, Spring) for faculty, staff and graduate students engaged in online/enhanced technology instructional activities. Added 16 new workshops to our schedule over the past year, and increased the number of trainers/partners. We increased the number of unique trainees, participation in custom training, and participation in consulting services.

Challenges in Faculty Development

- Increase faculty use of LTS services, especially the use of WebCT, through well-planned and effective marketing strategies and broaden the reach of services to a greater number of faculty members throughout all University departments, in line with the objectives and goals of the DELTA compact plan.
- In conjunction with the Libraries, work to design LRCD space and services to best support teaching and learning with technology.
- Enhance workshop registration system to work in conjunction with our Instructional House Call system, and ensure the workshop registration system accurately reports data and contributes to increased efficiencies.
- Continuing to offer high quality, efficient service, under increasing demands. We are at our limit for what programs and services our current staffing levels allow us to offer.

ONLINE INSTRUCTIONAL PROGRAMS

This year, Online Instructional Programs, within the Learning Technology Service, completed production of several IDEA grant and other special projects, in addition to coordinating the IDEA grants program. The IDEA grants program assists faculty in the development of distance education programs, courses and tools. In addition, OIP supported institutional projects and grant projects in support of the academic mission of the institution. Projects this academic year include:

IDEA Grant Projects (31 total, representing 8 out of 10 academic colleges):

Project: Multi-College Distance Ed Undergraduate Degree Feasibility Study (Education)	
Faculty: John Pettit	DELTA Lead: Darryl McGraw

The purpose of this project-planning grant was to explore the feasibility of creating a multi-disciplinary undergraduate distance degree program for adult learners that would include specializations in undergraduate programs that would have potential for building distance education markets. The focus was to develop these markets through enrollments in the various specializations and enable them to eventually deliver entire distance education undergraduate degrees through their own academic department. DELTA staff assisted with the review of the existing undergraduate distance education program information. DELTA also conducted a market feasibility survey using UPA and DELTA assessment information. DELTA served as a liaison to external stakeholders such as NC community colleges, business and industry, and relevant university administrators and staff.

Resources: \$1,500.00 allocated, 40 hours allocated

Impact on DE: Undergraduate

Project: Market Analysis for Certificate Program in Environmental Toxicology (CALs)	
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Faculty: Chris Hofelt	DELTA Lead: Scott Cason
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The purpose of this project was to purchase digital video camera equipment to develop multimedia presentations for the distance delivery of content associated with TOX 495E, Environmental Toxicology and Chemistry. The video footage would be converted to streaming media and would be made available to DE students online. In addition, the equipment would be used to produce course content for TOX 401, Principles of Toxicology. As a result of this project, an undergraduate chemistry student at the University of Delaware has already participated in the DE program. Dr. Hofelt purchased digital video equipment. DELTA staff created a web based market validation survey that was distributed to a database available to Dr. Hofelt. The survey generated over 90 survey responses, and a list of potential focus group participants.

Resources: \$1,500.00 allocated, 30 hours allocated

Impact on DE: Type II Undergraduate

Project: Convert Online Computer Applications Course to Distance Learning (CHASS)	
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Faculty: James O. Williams	DELTA Lead: David Howard
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The purpose of this project was to create a distance education section of PS 101, Internet Research. The existing version of the course has proven to be popular with off-campus students. To better accommodate this audience, a distance learning format was planned with the objectives of creating more online assistance and adapting existing materials to a format that would be more compatible to the learning approaches of non-traditional students. DELTA evaluated another CHASS course offering entitled, "Internet Research," as a potential DE offering and consulted with Dr. Oliver about the course objectives and how they should be reflected in the assignments that he gave his students. DELTA also conducted a thorough review of his existing materials and developed a video version of the orientation session provided to students at the beginning of each semester.

Resources: \$9,911.30 allocated, 25 hours allocated, 22.5 hours used

Impact on DE: Type I Undergraduate

Project: Space Biology: Conversion of Digital Lecture Materials Using SMIL (CALs)	
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Faculty: Christopher Brown	DELTA Lead: Theresa-Marie Rhyne
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The purpose of this course development grant was to convert existing digital lecture materials using Synchronized Multimedia Integration Language (SMIL) technology for distance delivery of content. DELTA provided instructional design and project management support for this project, and facilitated the bidding and hiring process to contract with an outside contractor to do the SMIL programming work. Under the DELTA contract, Sikhya Solutions converted the Quicktime digital videos to RealMedia streaming format, the Powerpoint slides to Flash format, and the MS Word text of each lecture to RealMedia streaming text format. This streaming text allows for creation of captioned content for the hearing impaired. Each of these streams was then combined into a rich media (SMIL) presentation. At present, six lectures have been converted into SMIL format and are in various stages of review and revision. The remaining lectures will be completed in the September 2003 timeframe.

Resources: \$36,361.00 allocated, 150 hours allocated

Impact on DE: Type II Undergraduate

Project: PHI 250: Practical Reasoning (CHASS)
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Faculty: Marina Bykova	DELTA Lead: Stacy Smith
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The purpose of this project was to redesign and convert PHI 250: Practical Reasoning to make possible its offering through distance education. Some of the primary project objectives included critical revision of the course content; developing new instructional materials to encourage learning outcomes by engaging students in philosophical and logical inquiry; using technology and teaching innovations to promote a guided inquiry in teaching and create a positive learning experience; designing a complete web-based course fully approachable by distance education students, and learning how to use technology and operate the course web site. DELTA provided four instructional design consultations and developed a multimedia tutorial on "Levels of Language," a key concept in Practical Reasoning. In addition, this project provided a review and partial redesign of the lecture notes, new exams (quizzes) and homework assignments, more concrete arguments from different areas of special theoretical reasoning (scientific, philosophical, and ethical) as well as those from everyday life experience, etc. The end result was a conceptually accessible, self-explanatory, and easy to operate web-based course featuring a multimedia tutorial on a key concept.

Resources: \$11,999.00 allocated, 60 hours allocated, 45.5 hours used

Impact on DE: Type I Undergraduate, SCHs: Su03 - N/A; Fa03 - N/A; Sp04 - 60

Project: Marketing Teacher Education in Business and Marketing Education (Education)	
Faculty: Terrance O'Brien	DELTA Lead: Kay Zimmerman

The purpose of this resource development grant was to perform technical and content revisions for the Alternative Initial Licensure Program and the Master of Education Degree Program. The focus of this effort was to redesign the program website and common course templates. DELTA provided technical assistance for the instructional and graphic design of the site. DELTA also assisted with the redesign and development of the revised website.

Resources: \$10,000.00 allocated, 40 hours allocated

Impact on DE: Type II Masters

Project: ELP 344: Support Lateral Entry Teachers Through Online Courses (Education)	
Faculty: Anna Wilson	DELTA Lead: Connie Ingram

The purpose of this course development grant was to modify ELP 344, School and Society, for delivery through distance education. The focus of this effort was to create course materials that met standards of best practices relating to instructional and accessible Web design. Dr. Wilson purchased video camera equipment; Web development software (e.g., Macromedia MX Suite and RealPresenter Slide Show); and paid for travel expenses to videotape stakeholders in North Carolina schools. DELTA staff provided instructional and multimedia design expertise for the development of inquiry-based learning modules. A complete course website was developed, and the faculty member was provided training on the use of Dreamweaver, WebCT, and Wolfware. In addition, substantial video production work was completed.

Resources: \$10,113.75 allocated, 140 hours allocated, 78 hours used

Impact on DE: Type II Undergraduate, SCHs: Su03 - 87; Fa03 - 90; Sp04 - 90

Project: ENG 261: DE Version of English Literature I (CHASS)	
Faculty: Judith Ferster	DELTA Lead: Lisa Fiedor

The goal for this project was to develop a web-based version of the course English Literature I (ENG261) to be taught via Distance Education. This course is a survey of English literature to 1660, including Old English, Middle English, and Renaissance writing, focusing on such central authors as Chaucer, Spenser, Marlowe, Shakespeare, Jonson, Donne, and Milton. DELTA staff worked with Dr. Ferster to discuss the course format and delivery methods. However, due to faculty illness, the project was put on hold during the current fiscal year.

Resources: \$12,000.00 allocated, 80 hours allocated, 4 hours used

Impact on DE: Type I Undergraduate

Project: Virtual Physics Laboratories (PAMS)	
Faculty: Richard Mowat	DELTA Lead: Mike Cuales

The purpose of this project was to create interactive animated online exercises that would serve to enhance current courses and could potentially serve as the laboratory component of a future online version of PY205, an introductory physics course required for all engineering students. These online "virtual lab" exercises were to preserve, as much as possible, the important pedagogical elements of hardware-based physics laboratory projects and follow a guided approach, featuring interactive animations, that gives the student more responsibility for designing the experiment, for organizing the data collection procedure, and for the analysis and interpretation of the data. DELTA worked with Dr. Mowat to design a theme for 6 interactive physics laboratories and to produce the visual elements for the online lab sessions. Dr. Mowat used Flash to develop the user interaction.

Resources: \$10,070.70 allocated, 40 hours allocated, 13.5 hours used

Impact on DE: Type III Undergraduate

Project: FCS 522: Family & Consumer Sciences (CALS)	
Faculty: Karen DeBord	DELTA Lead: Mike Cuales

The purpose of this project was to support the completion of the first online course in a new Master's Degree program in the Department of Family and Consumer Sciences. The program will be jointly offered with UNC-Greensboro. DELTA directed an introductory video and assisted Dr. DeBord with the preparation of her online course. DELTA also authored three SMIL presentations from provided PowerPoint slides, assisted in researching desktop video conferencing options and collaborated with the Media Technician to establish the video conferencing process.

Resources: \$1,500.00 allocated, 40 hours allocated, 45 hours used

Impact on DE: Type II Masters

Project: Principles of Toxicology Online Course Development (CALS)	
Faculty: Chris Hofelt	DELTA Lead: Leigh Jay Hicks

The purpose of this project was to develop an online course, Principles of Toxicology (TOX401). This course is intended to be part of a series of online courses, beginning with Environmental Toxicology and Chemistry (TOX-495E), which would be used as a template for future toxicology courses. Dr. Hofelt had many questions about streaming lectures over the web, so DELTA staff conducted research and discussed the streaming and storage possibilities. DELTA staff worked with Chris Hofelt and Alicia Chaves on the TOX 495 website (the template for future TOX course websites), providing detailed suggestions for improvement and modifications to the HTML template.

Resources: \$11,856.00 allocated, 6 hours allocated, 6 hours used

Impact on DE: Type II Undergraduate

Project: Program Planning for DE Course in Animal Science (CALS)	
Faculty: Todd See	DELTA Lead: Rebecca Swanson

The purpose of this program-planning grant was to conduct a market feasibility study to establish a DE course in Animal Science. The focus of this effort was to fund personnel and operating expenses during the market research, and DELTA employee staff time for consultation. DELTA assisted in designing and delivering a DE faculty workshop in Animal Science. DELTA also provided consultation during the development for the market feasibility study. DELTA funded and facilitated a focus group survey.

Resources: \$10,000.00 allocated, 20 hours allocated

Impact on DE: Type III Undergraduate

Project: ENG 101: Creating Assignments (CHASS)	
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Faculty: Lucindy Willis	DELTA Lead: Donna Petherbridge
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In this project, Dr. Willis set out to develop two 4-week English 101 assignments. The goal was to develop these materials in an online format so that they could be used as a starting point for a future online Distance Education version of the course. Because the primary need for this project was faculty development, Dr. Willis was granted a guaranteed seat in the Summer Institute training program. She was also provided the Summer Institute software and materials early in order to begin work on her course materials. DELTA staff provided instructional support for Dr. Willis throughout the development of the learning materials for her course.

Resources: \$1,500.00 and Summer Institute seat allocated, 6 hours used

Impact on DE: Type I Undergraduate

Project: TED 359: Electronics Technology On-Line (Education)	
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Faculty: William Haynie	DELTA Lead: Mike Cuales
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The purpose of this project was to develop an on-line version of an existing undergraduate face-to-face lab-based course, TED 359. The following products were considered necessary: a course website, three videotaped demonstration lessons (soldering, printed circuits, and Oscilloscopes), 24 concept lessons, 4 on-line tests, some communication capability, and 8 interactive on-line laboratory experiments. DELTA staff provided consultations and directed 3 video shoots and completed the online lab sessions.

Resources: \$8,393.21 allocated, 30 hours allocated, 43.5 hours used

Impact on DE: Type II Undergraduate

Project: Remote OPNET Simulation Lab Access (Engineering)	
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Faculty: Rudra Dutta	DELTA Lead: Lou Harrison
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The purpose of this resource development grant was to design a remote OPNET simulation lab for distance education students enrolled in CSC 570, Computer Networking. The focus of this effort was to fund personnel and operating expenses for hardware installation, beta testing, and the development of Web management interfaces. Over 50 student credit hours have been generated for each course offering as a result of this resource development grant. DELTA consulted with Dr. Dutta about identifying appropriate students for this project and about the project objectives and deliverables. DELTA provided support for a student, allowing the installation of requisite hardware and establishment of access for distance education students through the EOS/Unity environment by a Secure SHell (ssh) protocol. Dr. Dutta and his student also resolved OPNET license management issues, conducted initial beta testing of the user management system with simulated users, fixed persistent software problems and conducted a demonstration of the virtual lab for the Department of Engineering.

Resources: \$10,000.00 allocated, 10 hours allocated

Impact on DE: Type III / IV Masters

Project: Virtual Unmanned Vehicle Simulator (Engineering)	
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Faculty: Mo-Yuen Chow	DELTA Lead: Terri Minowicz
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The purpose of this course development grant was to design and develop a Web-based virtual unmanned vehicle simulator for distance education courses. Dr. Chow was provided funding to hire a graduate student to complete programming work for the grant. During the duration of the IDEA Grant production, DELTA staff were kept informed by Dr. Chow as to the status of the project. At the end of

the grant, DELTA staff were provided with a demonstration of the completed work along with a report.

Resources: \$12,000.00 allocated, 6 hours allocated, 12 hours used

Impact on DE: Type IV All Levels

Project: Online Master of Horticultural Science Degree Program (CALs)	
Faculty: Doug Sanders	DELTA Lead: Scott Cason

The purpose of this program-planning grant was to design and implement a DE Masters Degree Program in Horticulture Science. The focus of this effort is to provide funding for faculty development time, as well as an instructional designer, Web developer, and marketing specialist. The DE Masters program will contain over 40 graduate credits with a projected enrollment of 15 students per credit hour each semester. DELTA developed a web site and promotional flyer template.

Resources: \$10,000.00 allocated, 10 hours allocated

Impact on DE: Type III Masters

Project: PGM Internet Course Development (CNR)	
Faculty: Michael Kanters	DELTA Lead: David Howard

The purpose of this course development project was twofold: 1) to develop an introductory Food & Beverage Management course that could be used for both students in the Professional Golf Management (PGM) program while they complete a minimum of 16 months of cooperative education off-campus experiences and for PGM students at other PGA accredited universities, and 2) to develop Internet-based courses that would eventually become core content in a graduate certificate PGM program in cooperation with the Golf Management Institute of Canada, and Guelph University in Canada. DELTA worked with Dr. Kanters to create a template for his new class, "Food and Beverage Management," the second in the PGM online program. DELTA created a similar template for Dr. Kanter's existing "Sport Law" class and provided him with the appropriate files and user guide for creating similar templates for future classes.

Resources: \$11,487.00 allocated, 120 hours allocated, 39.5 hours used

Impact on DE: Type II Undergraduate

Project: HS 590E: Digital Photography for Vegetable Crops Management (CALs)	
Faculty: Doug Sanders	DELTA Lead: Scott Watkins

The purpose of this grant for learning materials was to convert digital images to slides for presentation via the web. The focus of this grant was to fund personnel, operating expenses, and DELTA staff time. DELTA worked with Dr. Sanders to develop a procedure for scanning and creating slides of an existing digital image library. DELTA also created streaming video files of slides to present online.

Resources: \$1,000.00 allocated, 10 hours allocated

Impact on DE: Type III Masters

Project: LabWrite: Creating an Online Environment for DE Laboratory Courses (CHASS)	
Faculty: Michael Carter	DELTA Lead: Connie Ingram

The purpose of this project was to develop online software for writing lab reports. This project was treated as a partnership between DELTA and CHASS due to the fact that it was already funded by an NSF grant. Therefore, no IDEA grant funds were provided. DELTA worked with project faculty to plan the development process and timeline, advised Labwrite faculty about technical approaches to project development, and coordinated the hire of a programmer and two web user interface designers. The project will continue into the September timeframe as needed for debugging and implementation.

Resources: 40 hours allocated, 34 hours used

Impact on DE: Type II Undergraduate

Project: Online Self-Assessment Tools (CALs)	
Faculty: Dan Croom	DELTA Lead: Donna Petherbridge

The goal of this project was to establish self-assessment tools for each unit in four courses taught via distance education: AEE 206: Introduction to Teaching Agriculture, AEE 303: Administration and Supervision of Student Organizations, AEE 503: Youth Organization Management, AEE 735: Effective Teaching in Agriculture and Life Sciences. No direct funding was needed for this project; instead, Dr. Croom needed instruction in the development of self-assessment tools for each course. His goal was to have a self-study tool that helps keep students focused on the most critical course material and provides immediate feedback on student performance. DELTA staff provided consultations and directed Dr. Croom to an LTS workshop on Hot Potatoes software (used for online student quizzing). This workshop met the needs of Dr. Croom and he was able to develop assessments for the courses listed above.

Resources: 16 hours allocated, 2 hours used

Impact on DE: Type II Undergraduate

Project: PE 105; PE 109; PE 282: Fitness Kits for Distance Education Courses (ST. AFF.)	
Faculty: Peggy Domingue	DELTA Lead: Rebecca Swanson

The purpose of this project was to create re-usable fitness kits for the following DE courses: PE 105, PE 109, and PE 282. The fitness kits are essential teaching tools for resistive and cardiovascular training. Each student receives a fitness kit to participate in online exercises and returns the kit after the course finishes. The principle investigator estimates DE enrollments will exceed 44 students for each of the courses identified, based on the existing campus enrollment for each course. Through this DELTA IDEA grant, Peggy Domingue purchased the necessary fitness equipment (e.g., speed jump ropes and resistive packs).

Resources: \$1,500.00 allocated

Impact on DE: Type II Undergraduate

Project: ARE 309: Course Enhancement and Materials Development (CALs)	
Faculty: Theodore Feitshans	DELTA Lead: Scott Cason

The purpose of this grant for learning materials was to enhance the content of ARE 309, Environmental Law and Economic Policy, and to migrate online quizzing and testing to WebCT. The focus of this grant was to provide funding for personnel, operating expenses, and DELTA staff time. The principle investigator estimates this online course will generate 25 students per semester based on existing campus enrollment figures. DELTA conducted a market feasibility study and designed advertising materials.

Resources: \$8,647.80 allocated, 40 hours allocated

Impact on DE: Type III Undergraduate

Project: Developing Interactive Online Simulations in Instructional Design (Education)	
Faculty: Diane Chapman	DELTA Lead: Mike Cuales

The purpose of this project was to transform four case studies from paper-based tools to interactive online simulations. The online cases will allow for non-linear problem solving. They will offer alternate paths to the outcomes and will help the students be more active participants in a more realistic venue. The cases will make use of html pages, photos and clip art, interactive diagrams, memos, spreadsheets, audio and perhaps some video. Branching will be a major component of the design. DELTA worked with Dr. Chapman in the ideation, creation, and storyboarding of one online interactive case study. The case study is presented as an immersive Flash-based activity that allows students to step through a narrative case study and learn information through self-paced and self-guided learning.

Resources: \$4,050.00 allocated, 20 hours allocated, 38.5 hours used
Impact on DE: Type II Masters, SCHs: Su03 - N/A; Fa03 - 39; Sp04 - 90

Project: CH 221: Organic Chemistry I Online (PAMS)	
Faculty: George Wahl	DELTA Lead: Ray Brown

The purpose of this project was to update the existing Organic Chemistry I (CH221) course to include additional online components. Dr. Wahl was interested in developing QuickTime movies from Powerpoint lectures, developing website materials, meeting ADA compliance, and developing written materials that would facilitate future website maintenance activities. DELTA staff worked with Dr. Wahl to do a complete website review and update paired with consultations on web presentation of materials.

Resources: \$1,400.00 allocated, 60 hours allocated, 80 hours used
Impact on DE: Type III Undergraduate, SCHs: Su03 - 18; Fa03 - 69; Sp04 - 150

Project: Engineering Online Student Access to Internet Lab (Engineering)	
Faculty: George Rouskas	DELTA Lead: Theresa-Marie Rhyne

The purpose of this resource development grant was to create a virtual Internet lab that would permit graduate engineering students to access the lab remotely and perform experiments identical to those conducted on campus. The focus of this effort was to fund personnel and operating expenses. The principle investigator estimates that the DE offering of three courses could produce up to 40 students per course each semester. The major thrust of this DELTA IDEA grant was the development of the reservation system for virtual lab scheduling. Graduate students were hired with DELTA IDEA grant funds to develop the "Rsys" software that also has the flexibility to be a generic reservation system meant for any kind of resource, not just a virtual lab environment. The software is currently being used for ECE virtual labs in Autumn 2003.

Resources: \$10,000.00 allocated
Impact on DE: Type IV Masters

Project: Presentational Communication (CHASS)	
Faculty: Darrell Pond	DELTA Lead: Stacy Smith

The purpose of this project was to analyze the instructional methodologies and tools required to effectively translate a course on Presentational Communication (COM 301) to the web. The project involved investigating options for live speech delivery by distance students and creating a digital video-bank of speeches captured during on-campus classes. This video-bank will serve as a key instructional resource for the distance education course. DELTA provided four instructional design consultations and produced several video clips for an online "library" of student speeches. In producing the clips, DELTA personnel attended Com.301 student presentations and supported the video producer with shooting and produced video clips of various aspects of speech making, such as introduction, conclusion, supporting material, transitions etc. DELTA also began researching synchronous web-based tools as well as low-tech options that would allow distance students to deliver live speeches to their fellow classmates.

Resources: \$10,000.00 allocated, 60 hours allocated, 37 hours used
Impact on DE: Type II Undergraduate, SCHs: Su03 - N/A; Fa03 - N/A; Sp04 - 75

Project: GD 342: History of Graphic Design (Design)	
Faculty: Martha Scotford	DELTA Lead: David Howard

The purpose of this project was to further enhance the features of the GD 342 course website for distance students. The enhancements include online testing, audio-enriched images, and video tours of selected books from Special Collections at DH Hill Library. A secondary purpose is to continue to develop the site

into a rich educational resource, parts of which may be used by other courses in design history. DELTA worked with Dr. Scotford to design and publish an online version of GD342. DELTA also supported Dr. Scotford with the design, edits and publication of course content, quizzes, artwork, and created a videotape tour of the rare books collection in the library. DELTA conducted several instructional design and online teaching consultations with Dr. Scotford. In the course of producing the video tour of the rare books collections, LTS staff met with VCS and directed them in terms of our final goals and vision, resulting in successful recording of both tours. The final video has been placed on the web and used by Dr. Scotford's distance students.

Resources: 50 hours allocated, 117 hours used

Impact on DE: Type III Undergraduate, SCHs: Sp03 - 39; Su03 - N/A; Fa03 - N/A; Sp04 - 75

Project: NTR 500: Development of DE Lecture Materials (CALs)	
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Faculty: Jonathan Allen	DELTA Lead: Scott Watkins
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The purpose of this project was to design and develop lecture materials for NTR 500, Principles of Human Nutrition for DE delivery. The focus of this effort was to purchase computer hardware, personnel, and DELTA staff time. Through this DELTA IDEA grant, Dr. Allen purchased computer hardware and software (e.g., OS10.2.3, Apple Keynote presentation software, QuickTime Pro, and Sonicworx editing software). Dr. Allen also converted classroom lectures from MSV to a MP3 format and blended MP3 clips with PowerPoint slides and published them as a QuickTime presentation.

Resources: \$500.00 allocated

Impact on DE: Type II Masters

Project: Taking Effective Posters to the Web (CNR)	
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Faculty: George Hess	DELTA Lead: David Howard
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The purpose of this project was to work with Dr. Hess to begin designing a web-delivered version of his "Effective Poster Presentations" course and to implement a small part of it. Specifically, the purpose was to sketch an overall design for the course, record in digital video some of the classroom discussion in this spring's face-to-face offering of the course, edit the digital video for online course use, and work with marketing services to establish appropriate advertising strategies for the course. DELTA worked with Dr. Hess to help him design an online version of his five-week course entitled, "Effective Poster Presentations." DELTA created videotape segments of the class to use in the online version, consulted with Dr. Hess about online teaching strategies, and provided information about how to present the course online without losing the unique qualities that make it a success in a face-to-face setting. DELTA helped Dr. Hess explore the possibilities for interactive instruction (e.g., discussion boards, chat rooms, whiteboard, etc.) and how they could foster equivalent interaction as compared with his course on campus (e.g., moderated class discussions or critiques of work).

Resources: \$2,000.00 allocated, 40 hours allocated, 44.5 hours used

Impact on DE: Type III Masters, SCHs: Su03 - 0; Fa03 - 0; Sp04 - 15

Project: QTVR Project (CNR)	
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Faculty: Scott Payne	DELTA Lead: Darryl McGraw
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The purpose of this project was to create virtual field trips for distance education students enrolled in PRT 250, Management of Park and Recreation Facilities, using QTVR technology. The focus of this effort was to fund computer equipment hardware. Through this DELTA IDEA grant, Dr. Payne purchased computer hardware equipment (e.g., Gitzo Monopad, with bubble level, 360 One VR parabolic camera lens, Coolpix 5000 Camera Mounting Kit, and a Manfrotto 3232 Swivel Head mount).

Resources: \$1,500.00 allocated

Impact on DE: Type II Undergraduate

NON-IDEA-Grant Projects

Project: A Door Into Hindi	
Faculty: Afroz Taj, Tony Stewart, John Caldwell	DELTA Lead: David Howard

The purpose of this project was to create a web-based set of lessons to teach Hindi. These lessons would support both on-campus and distance education versions of FLN 101 and 102. DELTA worked with Afroz Taj, Tony Stewart and John Caldwell on the Hindi Lessons website that supports FLN 101/102. The course involves videos, interactive exercises, grammar lessons, vocabulary, etc. Much of the content is now online and more videos have been added. DELTA coordinated clean-up and restructuring of file layout and website look and feel. This primarily involved developing templates and stylesheets that provided a consistent look and feel and then preparing a guide to using these resources and a report on the standardization issues that needed to be fixed.

Impact on DE: Type II Undergraduate

Project: T&D Online	
Faculty: Jim Burrow	DELTA Lead: Stacy Smith

The T&D Online program is a distance-delivered master's degree offered through the Department of Adult and Community College Education (<http://tdonline.ncsu.edu>). The purpose of this multi-year project is to develop web-based versions of the courses and to provide general program and faculty support. DELTA developed & coordinated the first summer orientation for the T&D Online program, coordinated the annual program Open House, presented a poster at the ED TECH Expo, redesigned the T&D Online website (<http://tdonline.ncsu.edu>), and updated other promotional materials as required (CD-ROM, flyer, etc.) DELTA designed and developed online versions of EAC 580, EAC 582, EAC 759, and EAC 586. DELTA also provided customized training and support for faculty and staff in the ACCE Department and worked to improve support resources. Finally, DELTA collaborated with the new T&D Online Cohort Coordinator (Dr. Diane Chapman) to develop streamlined processes & procedures, write various program reports/documents, and hire / supervise the T&D Online program assistants.

Impact on DE: Type II Masters

Project: Digital Slides Database	
Faculty: Library staff	DELTA Lead: Thomas Wilson

The purpose of this project was to design and develop presentation tools that would support College of Design faculty using the Design Slides Database in their teaching. DELTA developed documentation and correspondence in support of efforts to collaborate with the NCSU Libraries on the development of an image cataloging and classroom presentation system. DELTA also conducted interviews of Library staff (Shirley Rodgers, Rachel Kuhn, Deborah Westmoreland) to explore and understand collaboration possibilities. These conversations covered both the searchable Design Library Slides collection, as well as the DLI's MyDatabase solution for cataloging personal image collections. The recent adoption of Luna Insight to manage the Libraries' digital image collections will reshape the future of this project and collaboration between DELTA and the NCSU Libraries.

Impact on DE: Type III various levels

Project: Engineering Online Website	
Faculty: Linda Krute	DELTA Lead: Terri Minowicz

The goal of this project was to examine the existing structure and content of the Engineering Online website and turn it into something that could be used to recruit, market, and address the needs of present and potential Engineering Online students. By examining other Engineering university websites for

design, content, and structure, DELTA staff were able to develop a complete website plan that addressed these goals. This project went beyond mere website creation and delved into identity creation for a polished and marketable Engineering Online program. During the course of production, DELTA staff created an Engineering Online logo, graphics, site structure, individual page content, reorganized program descriptions and categories, created templates, cascading stylesheets, marketing pages, and made continuous content, structure, and design updates to the site. The website administration, with training, has since been passed onto Butch Bryant within Engineering Online. The website is a crucial doorway of information into the program that potential students can access in order to set their expectations and standards regarding Engineering Online.

Project: Engineering Online 2+2 Analysis	
Faculty: Linda Krute	DELTA Lead: Terri Minowicz

The goal of this project was to analyze the experience among the different 2+2 sites and report any and all findings and suggestions toward the goal of making all sites and experiences as equivalent to one another as possible. In traveling to the different sites, such as Wilmington and Asheville, DELTA staff conducted interviews with the site directors, facilitators and students of the program to assess their perceived needs. An analysis of the course delivery mechanisms was also conducted in an attempt to enhance the course in the future with multimedia components. In conducting the analysis of these aspects, a final report was compiled which contained a needs assessment, audience analysis, technology analysis, task analysis, critical incident analysis, situational analysis, objective analysis, media analysis, extant data analysis, cost-benefit analysis, design parameters, resource selection, evaluation characteristics, implementation plan and timeline, and supporting research. The final report provided a complete summary of the findings, and indicated that the goals of the program are being met. The next step in this project is to apply the needs and suggestions throughout this analysis to aspects of the 2+2 program, where possible. Overall, this project was important for developing a complete understanding of the program, and to determine the best direction to move forward when working with each of the professors and their courses within the program.

Project: Engineering Online Courses	
Faculty: Joe Fahmy and Michael Boles	DELTA Lead: Terri Minowicz

The goal of this project was to begin applying the findings and suggestions from the 2+2 analysis to each of the courses within the program. Dr.'s Fahmy and Boles were chosen to participate first in revising and enhancing both their in-class and distance delivery of materials. After meeting with each professor and determining their own preferences and styles and the goals of the program, individual plans of action were created for each course to be developed and produced over the course of the summer. These goals included improvements to their course website, changes in structuring and organizing their content both in-class and online, enhancing the course with multimedia components, and enhancing the delivery of material in the classroom. These projects have been placed on hold until the permanent Multimedia Specialist position is filled. Given the differences between teaching styles of these two professors, the results of meeting each of their goals should be an effective way of illustrating possibilities of different approaches when enhancing courses within the 2+2 program. This can go a long way towards getting buy-in from other professors teaching the program courses.

Impact on DE: Type IV Undergraduate

Project: Accessible Licensure (Education)	
Faculty: John Penick	DELTA Lead: Connie Ingram

The purpose of this project was to continue the planning and development work for the Accessible Licensure program for teacher education. DELTA staff worked with program administrators to develop a working process and timeline. DELTA staff also coordinated the hire of 4 part-time employees (program coordinator, marketing specialist, instructional designer, multimedia/graphic specialist) to do

development work on courses and planning document. Additionally, DELTA staff worked with part-time contracted employees to oversee development and delivery of program analysis and final report. The major deliverables for this project included a program planning report, a course template for web delivery of Accessible Licensure courses, and a web development guide for faculty in the program.

Impact on DE: Type II graduate

Major Accomplishments in Online Instructional Programs

In FY02-03, the OIP realized several accomplishments. They include:

- Hired the Online Instructional Programs team, including a Senior Instructional Designer (manager of the team), two multimedia specialists, an instructional designer, and a web applications developer. The group will be completed upon the hire of an Accessibility Specialist, in late July. This team joined an existing instructional designer, in support of dramatically increased delivery of DE via the Internet.
- Redesigned the DELTA RFP program, including goals, objectives and implementation
- Launched and coordinated the 2002-03 IDEA grants program with revised goals, objectives and electronic submission and review
- Completed decision-making processes and purchased the synchronous learning management system, Centra, in support of distance education activities.

Challenges in Online Instructional Programs

- Continue to design IDEA grants infrastructure and flow processes, including sophisticated tools for tracking and reporting within individual projects for awardees, developers and managers.
- Launch and coordinate 2003-04 IDEA grants program.
- Conduct planning and development work on IDEA grants and other projects as assigned to the group.

TECHNOLOGY DEVELOPMENT

This year, Technology Development, within the LTS, passed several milestones in the provision of distributed and distance learning services for the University. These milestones were collaboratively reached with faculty, staff and technology administrators across divisions of the institution.

Major Accomplishments in LTS Technology Development

- Launched university-wide Cold Fusion services, in conjunction with the Information Technology Division and the colleges. Negotiated four Service Level Agreements (SLAs) for Cold Fusion Services (CALS, Design, Education, CVM).
- Designed, installed reliable, redundant, load balanced Zope server cluster.
- Customized Plone for NC State portal, built mock-up for OIP Designers to review.
- Continue in-house development to improve tools provided within WolfWare.
- Participated in portal selection process, which led to ACS purchase of PeopleSoft portal as an administrative portal, but did not recommend a pedagogical portal solution.
- Upgraded WebCT from version 3.6 to version 3.8 and upgraded the operating systems on our WebCT servers from Solaris 2.6 to Solaris 2.8.
- Developed a temporary solution for semester rollover of WolfWare courses.
- Developed WolfWare gradebook, including integration with Registration and Records, grade submission.
- Participated in the Open Knowledge Initiative (OKI) Developer Group.
- Developed Indite, a tool to facilitate uploading of real media by VCS operators for DE classes.
- Developed DELTA Intranet Tools including:
 - Custom CD shipping label software for MDS
 - Distance Education Course Approval System
 - DELTA Staff Reporting and Evaluation System, and Staff Profile Tool
 - Workflow Management System
 - Online Survey Generator
 - Distance Education Enrollment Reporting
 - Marketing System and Reporting for DE, CTU, T&D, EOL, ACP
 - Enrollment and Tuition Summary Reporting for AY2002-03 and forecasting for AY2003-04
- Added additional features to the Faculty Development workshop registration system.
- Developed a second version of the Infofacts generator.
- IDEA Grants development
 - Online system for process for 2002-2003
 - Design and Development of new online system for process for 2002-2003 (in conjunction with OIP)
- Launch of new DELTA/LTS/VCS websites and maintenance of old DELTA/LTS websites.

Challenges in Technology Development

- Failure to achieve consensus on a campus pedagogical portal solution.
- Maintaining sufficient staffing to maintain necessary levels of support and development.

WebCT, Wolfware and RealMeda

We have reached the point where the magnitude and growth rate of students enrolling in distance and on-line courses cannot be supported from DELTA's internal funding. Distance education students in AY02-03 paid more than \$254K in Educational Technology Fees (ETF). DELTA provides the disk space for streaming media files used in on-line courses, as well as the licenses and support for NC State's learning management systems: Wolfware and WebCT. In AY02-03, 91% of the usage for Wolfware and WebCT was on campus, while 9% was for distance education. At present, one-third of NC State's course sections utilize these learning management systems, impacting nearly all of NC State's students.

Wolfware and WebCT Statistics

	Fall 02			Spring 03			Summer 03		
	Total	WolfWare	WebCT	Total	WolfWare	WebCT	Total	WolfWare	WebCT
Students	33,837	22,797	11,386	30,159	20,545	N/A	27,289	3,962	3,805
Courses	3,191	870	227	3,273	870	226	762	177	50
Course Sections	6,356	2,059	460	6,241	1,720	434	135	276	70
DE Sections		120	57		169	70		57	15

RealMedia Statistics:

With the development of the Indite tool, the LTS can more accurately log usage of the RealMedia files stored in AFS and used by distance education students and faculty. The ratio of streaming use versus download use remains almost equivalent.

	Courses / RM Files	Streams	Downloads
Fall 02	36	18,469	17,069
Spring 03	68	20,296	21,270
Summer 03	58*	3,902	3,284

*Also includes clicks during summer to old RM files from previous semesters

More detailed RealMedia statistics are available at:

- Fall 03
http://www2.ncsu.edu:8010/unity/lockers/dept/DELTA_Share/DELTA_Tech_Dev/www/realmedia/2002-08/
- Spring 03
http://www2.ncsu.edu:8010/unity/lockers/dept/DELTA_Share/DELTA_Tech_Dev/www/realmedia/2003-01/
- Summer 03
http://www2.ncsu.edu:8010/unity/lockers/dept/DELTA_Share/DELTA_Tech_Dev/www/realmedia/2003-05/

Servers

LTS Technology Development, sometimes in association with the Information Technology Division (ITD) supports services addressing a variety of academic sites and services. Use of such servers by the academic community is expected to increase, as more and more colleges and departments use Internet-based and server-based systems to provide information to students, develop grant projects, and host applications, databases and other instructional systems.

Name: uni01wct.unity.ncsu.edu (webct.ncsu.edu)

Primary IP: 152.1.1.82

Location: ITD Server Room

Operating System: Solaris 2.8

Hardware: Sun Enterprise 450, 2x80Gb HD, 2Gb RAM

Primary Function: Primary WebCT 3.8 server

Name: uni02wct.unity.ncsu.edu

Primary IP: 152.1.1.89

Location: ITD Server Room

Operating System: Solaris 2.8

Hardware: Sun Enterprise 220R, 1x30Gb HD, 2Gb RAM

Primary Function: Backup, development WebCT server

Name: ww98ws.unity.ncsu.edu, ww99ws.unity.ncsu.edu

Primary IP: 152.1.2.229, 152.1.4.99

Location: ITD Server Room

Operating System: Solaris 2.8

Hardware: Sun Sparc Ultra

Primary Function: WolfWare Development Server

Name: ww01ws, ww03ws, ww05ws.unity.ncsu.edu

Primary IP: 152.1.2.15, 152.1.2.19, 152.1.2.30

Location: ITD Server Room

Operating System: Solaris 2.8

Hardware: Sun Netra

Primary Function: WolfWare Submit Server

Name: ww00ws, ww02ws, ww04ws,

ww06ws.unity.ncsu.edu

Primary IP: 152.1.2.14, 152.1.2.16, 152.1.2.20, 152.1.2.35

Location: ITD Server Room

Operating System: Solaris 2.8

Hardware: Sun Netra

Primary Function: WolfWare WebServer (courses.ncsu.edu)

Name: ww01g.unity.ncsu.edu

Primary IP: 152.1.2.13

Location: ITD Server Room

Operating System: Solaris 2.8

Hardware: Sun Netra

Primary Function: WolfWare Cron/Mail server

Name: ww90ws.unity.ncsu.edu, ww91ws.unity.ncsu.edu

Primary IP: 152.1.4.114, 152.1.4.116

Location: ITD Server Room

Operating System: Solaris 2.8

Hardware: Sun Blade

Primary Function: WolfWare II Dev

Name: patterner.delta.ncsu.edu, summoner.delta.ncsu.edu

Primary IP: 152.14.19.200, 152.14.19.253

Location: Ven III wiring closet

Operating System: Solaris 2.8

Hardware: Sun Fire v100

Primary Function: Zope Development

Name: delta-boot.delta.ncsu.edu, sunfire.delta.ncsu.edu

Primary IP: 152.14.19.252, 152.14.19.243

Location: Ven III wiring closet

Operating System: Solaris 2.8

Hardware: Sun Fire v100

Primary Function: install server, redundant hardware

Name: ahoskie, asheville, clayton.delta.ncsu.edu

Primary IP: 152.14.62.150, 152.14.62.151, 152.14.62.152

Location: Ven III wiring closet

Operating System: Debian Linux 3.0

Hardware: Dell Poweredge 2650 2x2GHz Xeon, 32 Gb RAID, 1Gb RAM

Primary Function: Sope Application Servers / Database servers

Name: winston.delta.ncsu.edu, salem.delta.ncsu.edu

Primary IP: 152.14.62.153, 152.14.62.154

Location: Ven III wiring closet

Operating System: Debian Linux 3.0

Hardware: Dell 1x 1.8GHz P3, 32 Gb, 512Mb RAM

Primary Function: Load balancers

Name: raleigh.delta.ncsu.edu

Primary IP: 152.14.62.135

Location: Ven III wiring closet

Operating System (as of last fiscal year): Debian Linux

Hardware: Dell Poweredge 2650 2x2GHz Xeon, 130 Gb RAID, 2Gb RAM

Primary Function (as of last fiscal year): Zope Database

Name: portaldev.ncsu.edu

Primary IP: 152.1.45.25

Location: CALS Server Room

Operating System: Win 2000 Adv. Server

Hardware: Dell 4x 733 MHz Xeon, 100 Gb RAID, 2Gb RAM

Primary Function: MS SQL Server/minor web server

Name: uni00wp, uni01wp, uni02wp.unity.ncsu.edu

Primary IP: 152.1.2.152, 152.1.2.153, 152.1.2.155

Location: ITD Server Room

Operating System: Solaris 2.6

Hardware: Sun Netra

Primary Function: CF App Server

Name: dlt##df.unity.ncsu.edu (## goes from 00-07)

Primary IP: 152.1.1.189-196

Location: ITD Server Room

LEARNING TECHNOLOGY SERVICE STAFF

During this academic year, the LTS had 23 full-time positions, various part-time and temporary positions, including several student associates.

Full-Time Staff

Jim Blair
James Bossert
Paul Brinich
Ray Brown
Mike Cuales
Lisa Fiedor
Elliott Fisher
Jenny Gilbert
Lou Harrison
Hillisha Haygood
Bill Hicks
Leigh Jay Hicks
Robert Holloman
David Howard
Connie Ingram
Tricia McKellar
Terri Minowicz
Donna Petherbridge
Sharon Pitt
Theresa-Marie Rhyne
Stacy Smith
Scott Watkins
Thomas Wilson

Part-time Staff

Nancy Margolis
Ann Shahan

Temporary Staff

Lee Ann Gillen
Miriam Guthrie
Edrie
Robert
?

Graduate Students

Dede Nelson

Student Associates

Christa Bockweg
Timothy Clark
Vishaal Khandoobhai
Eric McEachern
Christopher Morano
Anand Paleja
Shilpi Suneja
Douglas Steigerwald
Daniel Underwood
Brian Webb

Statewide, Regional and National Affiliations

North Carolina State University is a member of the Teaching Learning Technology Collaborative (TLTC), a statewide cooperative of higher education institutions in the UNC System, addressing TLT issues. NC State, through the LTS and DELTA, has been an active member of this organization, discussing and documenting critical TLT issues such in assessment of students, the transformational nature of distance learning, and intellectual property concerns and copyright issues associated with distributed learning, learning management systems, e-learning pedagogy, e-learning support, IT professional development, and web accessibility.

NC State, represented through DELTA and the LTS, is a member of NLII, the National Learning Infrastructure Initiative. The NLII mission is to create new collegiate learning environments that harness the power of information technology to improve the quality of teaching and learning, contain or reduce rising costs, and provide greater access to higher education.²

² <http://www.educause.edu/nlii/>

PRESENTATIONS, PUBLICATIONS, REPRESENTATIONS AND AWARDS

PRESENTATIONS

RAYSHAUN BROWN, Showing is better than telling: A hands-on introduction to Viewlet Builder's Online Demonstration Authoring Software, EdTech Expo, September 26, 2002, Raleigh, NC.

RAYSHAUN BROWN, Elements of Good Design, Business Expo, October 14, 2002, Raleigh, NC.

ELLIOTT FISHER, Video Basics for the Web, EdTech Expo, September 26, 2002, Raleigh, NC.

LISA FIEDOR, Accessible, ADA-Compliant Web Design (Video Presentation), 2003 UNC Teaching and Learning with Technology Conference, March 28, Greensboro, NC.

LOU HARRISON, JAMES BLAIR, The WolfWare Course Management System at NC State, Lulu Tech Circus, September 27, 2002, Raleigh, NC.

DONNA PETHERBRIDGE, DE Inc., Straight Talk on Program Development, EdTech Expo, September 26, 2002, Raleigh, North Carolina.

DONNA PETHERBRIDGE, Networking in the Round: How NC State's Teaching, Learning & Technology Roundtable Changes Higher Education's "Business as Usual, 2003 UNC Teaching and Learning with Technology Conference, March 28, Greensboro, NC.

THERESA-MARIE RHYNE, Geographic Visualization: Exploring Health & the Environment, Keynote Presentation at the Euresco Conference on Socio-Economic Research and Geographic Information Systems, delivered May 12, 2003, in Spa, Belgium. <http://www.esf.org/euresco/03/sc03111> (sponsored by the European Science Foundation)

THERESA-MARIE RHYNE, Developing Rich Media Content with SMIL, UNC Teaching and Learning with Technology Conference 2003, delivered March 27, 2003, in Greensboro, NC. http://www.unclt.org/special/conference2003/program/date_detail.cfm?id=12

THERESA-MARIE RHYNE, Bioinformatics Visualization: Searching for Metaphors in Uncharted Territory, Invited Talk presented at the National Institute for Environmental Health Sciences, delivered February 6, 2003, in Research Triangle Park, NC.

THERESA-MARIE RHYNE, THOMAS H. DUNNING JR., GUS CALAPRISTI, CHRIS NORTH, and DONNA GRESH, Evolving Visual Metaphors and Dynamic Tools for Bioinformatics Visualization, Panel Presentation at IEEE Visualization 2002 Conference, delivered November 1, 2002, Boston, MA.

THERESA-MARIE RHYNE, Bioinformatics Visualization: Searching for Metaphors in Uncharted Territory, Presentation at the Visualization in Bioinformatics and Cheminformatics Workshop held in conjunction with IEEE Visualization 2002, delivered October 27, 2002, Boston, MA.

THERESA-MARIE RHYNE, Online Education with SMIL, Lulu Tech Circus, September 27, 2002, Raleigh, NC. http://www.lulutechcircus.com/event/experience_detail.php?EXEVID=85

THERESA-MARIE RHYNE, EUROGRAPHICS UK 2002 Keynote Presentation: Pervasive Streaming Media and Computer Graphics, delivered June 11th, 2002 at DeMontfort University, Leicester, United Kingdom. <http://www.eguk.org.uk/DMU02/keynote.html>

Burrow, Jim, STACY SMITH and DONNA PETHERBRIDGE, A Learning Architecture Model for Online Learning, Presentation at the The Eighth Sloan-C International Conference on Asynchronous Learning Networks (ALN): The Power of Online Learning: The Faculty Experience. Orlando, Florida, November 9, 2002.

SCOTT WATKINS, Best Library TLT Practices: Integrating Library Resources and Courseware at NCSU, 2003 UNC Teaching and Learning with Technology Conference, March 28, Greensboro, NC.

PUBLICATIONS

LEIGH JAY HICKS. Co-Author. "The Far-Anchor Effect: Errors In The Perception Of Motion And Implications For Aviation Safety" Human Factors, Vol. 44, No. 1, Spring 2002, pp. 133-143.

THERESA-MARIE RHYNE, Does the Difference between Information and Scientific Visualization Really Matter, IEEE Computer Graphics and Applications, Vol. 23, No. 2, May/June 2003, pp. xx-xx. (in press)

THERESA-MARIE RHYNE, Conference Report: Carto BOF Meeting at SIGGRAPH 2002, Computer Graphics, Vol. 36, No. 4, November 2002, page 20.

THERESA-MARIE RHYNE, Thomas H. Dunning, Jr., Gus Calapristi, Chris North, and Donna Gresh, Evolving Visual Metaphors and Dynamic Tools for Bioinformatics Visualization, proceedings of the IEEE Visualization 2002 Conference, October 27 – Nov. 1, 2002, Boston, Massachusetts, IEEE Computer Society Press, Los Alamitos, California, 2002, pp. 579 – 582.

THERESA-MARIE RHYNE, Scientific Visualization, in Computer Graphics Companion, (McConnell, Ralston, Riley, and Hemmendinger, editors), Nature Publishing Group (Plagrave-Macmillan), 2002, pp. 158 – 163. (<http://www.naturereference.com//cgc/contents.htm>) ISBN: 0 333 997859 (published Sept. 2002).

THERESA-MARIE RHYNE, Computer Games and Scientific Visualization, Communications of the Association for Computing Machinery (CACM), New York, New York, Vol. 45, No. 7, July 2002, pp. 40 – 44.

THERESA-MARIE RHYNE, Alan Turner, Ron Vetter, Lars Bishop and David Holms, ACM SIGGRAPH 2002 Course #48 Notes: Dynamic Media on Demand: Exploring Wireless & Wired Streaming Technologies and Content.

PROFESSIONAL REPRESENTATIONS

JIM BLAIR, NCSU representative to OKI (Open Knowledge Initiative)

LOU HARRISON, SIGGRAPH 2003 Conference Committee

SHARON P. PITT, E-Learn 2003 Program Committee (PC), Phoenix, Arizona, USA, November 7-11, 2003, <http://www.aace.org/conf/ELearn>

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