Table of Contents

Summary ...................................................................................................................................................... 5
Mission ..................................................................................................................................................... 5
Vision ....................................................................................................................................................... 5
Programs .................................................................................................................................................. 5
  Distance Education ................................................................................................................................. 5
  Instructional Support Services .................................................................................................................. 6
  Educational Technology Services .............................................................................................................. 7
  Marketing and Partnership Development .................................................................................................... 7
  Finance and Business Office ..................................................................................................................... 8
Research ................................................................................................................................................... 8
Staff .......................................................................................................................................................... 9
  Changes ................................................................................................................................................... 9
  Professional Development and Activities .................................................................................................. 9
  Awards ................................................................................................................................................... 9
Diversity, Retention, and Staff Well-Being .......................................................................................... 10
  Diversity .................................................................................................................................................. 10
  Retention and Staff Well-Being .............................................................................................................. 11
Concerns and Recommendations for the Future .............................................................................. 11
Distance Education .................................................................................................................................... 13
Summary ................................................................................................................................................ 13
Programs ................................................................................................................................................ 13
  Enrollment growth .................................................................................................................................. 13
  New DE Programs ................................................................................................................................... 14
  New DE Web Site ................................................................................................................................... 15
  Expansion of DE Faculty and Student Services ....................................................................................... 16
  Establishment of a Rich Media Mini-Studio Recording Room ............................................................... 16
Research ................................................................................................................................................. 17
Staff ........................................................................................................................................................ 17
  Changes .................................................................................................................................................. 17
  Professional Development and Activities ................................................................................................. 18
  Awards .................................................................................................................................................. 19
Diversity, Retention, and Staff Well-Being ........................................................................................ 20
Concerns and Recommendations for the Future ............................................................................ 20
Instructional Support Services .............................................................................................................. 22
Summary ................................................................................................................................................ 22
# Programs

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and Support Programs</td>
<td>25</td>
</tr>
<tr>
<td>The Summer Institute 2009</td>
<td>45</td>
</tr>
<tr>
<td>ITAP (Instructional Technology Assistant Program)</td>
<td>48</td>
</tr>
<tr>
<td>Synchronous Learning Management System (Elluminate)*</td>
<td>50</td>
</tr>
<tr>
<td>Large Course Redesign</td>
<td>53</td>
</tr>
<tr>
<td>IDEA Grants Program</td>
<td>60</td>
</tr>
<tr>
<td>Course Production Program</td>
<td>61</td>
</tr>
<tr>
<td>HI 208: Medieval Origins of the Modern World Project Summary</td>
<td>67</td>
</tr>
<tr>
<td>FS 201: Food Science and the Consumer</td>
<td>69</td>
</tr>
<tr>
<td>FS 591: Food Rheology Project Summary</td>
<td>70</td>
</tr>
<tr>
<td>CS 224: Seeds, Science and Society Project Summary</td>
<td>71</td>
</tr>
<tr>
<td>BIO 488: Neurobiology Project Summary</td>
<td>72</td>
</tr>
<tr>
<td>D 492: Universal By Design</td>
<td>75</td>
</tr>
<tr>
<td>ANT 253: Unearthing the Past: Introduction to World Archaeology Project Summary</td>
<td>77</td>
</tr>
<tr>
<td>Development of Instructional Resources</td>
<td>78</td>
</tr>
<tr>
<td>Partnerships &amp; Internships</td>
<td>78</td>
</tr>
<tr>
<td>DELTA Web Communications</td>
<td>79</td>
</tr>
</tbody>
</table>

# Research

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS 591: Food Rheology Project Summary</td>
<td>82</td>
</tr>
<tr>
<td>CS 224: Seeds, Science and Society Project Summary</td>
<td>84</td>
</tr>
<tr>
<td>Development of Instructional Resources</td>
<td>84</td>
</tr>
<tr>
<td>Partnerships &amp; Internships</td>
<td>85</td>
</tr>
<tr>
<td>Awards</td>
<td>89</td>
</tr>
</tbody>
</table>

# Staff

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes</td>
<td>84</td>
</tr>
<tr>
<td>Professional Development and Activities</td>
<td>84</td>
</tr>
<tr>
<td>Awards</td>
<td>89</td>
</tr>
</tbody>
</table>

# Diversity, Retention, and Staff Well-Being

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI 208: Medieval Origins of the Modern World Project Summary</td>
<td>89</td>
</tr>
<tr>
<td>FS 591: Food Rheology Project Summary</td>
<td>89</td>
</tr>
<tr>
<td>CS 224: Seeds, Science and Society Project Summary</td>
<td>90</td>
</tr>
<tr>
<td>Large Course Redesign</td>
<td>91</td>
</tr>
<tr>
<td>Course Production Program</td>
<td>91</td>
</tr>
<tr>
<td>IDEA Grants Program</td>
<td>91</td>
</tr>
<tr>
<td>DELTA-wide facilities and equipment changes included the following:</td>
<td>94</td>
</tr>
<tr>
<td>Applications Development (AD) program initiatives include the following:</td>
<td>94</td>
</tr>
<tr>
<td>Application Support (AS) program initiatives include the following:</td>
<td>94</td>
</tr>
<tr>
<td>Media Distribution (MDS) program initiatives include the following:</td>
<td>95</td>
</tr>
<tr>
<td>Video Communication Services (VCS) program initiatives include the following:</td>
<td>96</td>
</tr>
<tr>
<td>Engineering program initiatives include the following:</td>
<td>99</td>
</tr>
<tr>
<td>DELTA-wide facilities and equipment changes included the following:</td>
<td>100</td>
</tr>
</tbody>
</table>

# Research

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications Development</td>
<td>100</td>
</tr>
<tr>
<td>Applications Support</td>
<td>100</td>
</tr>
<tr>
<td>Media Distribution Services</td>
<td>101</td>
</tr>
<tr>
<td>Video Communication Services</td>
<td>101</td>
</tr>
</tbody>
</table>

# Staff

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes</td>
<td>102</td>
</tr>
<tr>
<td>Professional Development and Activities</td>
<td>102</td>
</tr>
</tbody>
</table>
Concerns and Recommendations for the Future

Marketing and Partnership Development

Summary

Programs

Objectives

Key Tasks

Distance Education Integrated Interactive Marketing Initiatives FY 08/09

Distance Education Student Survey Data – Spring 2009

Research

DE Web site Redesign – Focus on the Future Initiative

Staff

Changes

Professional Development and Activities

Awards

Diversity, Retention, and Staff Well-Being

Concerns and Recommendations for the Future

Finance and Business

Programs

Shout Out program

Research

Revised telecommuting SOP and Agreement

Staff

Diversity, Retention, and Staff Well-Being
Summary

Mission

Education is the key to a prosperous future for North Carolina. DELTA promotes the quality of education by extending the reach of the faculty, collaboratively applying expertise in technology and pedagogy in an efficient, effective, and service-oriented environment.

Vision

We seek to improve the quality of education by harnessing technology to provide ready access for all learners. In this way we hope to meet the challenges of a changing society.

Programs

DELTA’s program accomplishments—grouped by unit—represent changes in the scope of activities, changes in volume of activities, significant achievements, and special programs for FY 08/09.

Distance Education

Distance Education (DE) continued to experience growth in enrollments, instructors and programs. During FY 08/09, 11,059 students enrolled in 1,148 DE courses and sections taught by more than 250 NC State faculty in 48 degree, certificate, and teacher licensure programs. Distance Education activity increased by 17.4 percent in FY 08/09 with a total of 61,076 student credit hours delivered. A DE Master of Arts in Teaching program was launched, and new cohorts began in the Ed.D. in Adult and Community College Education, the NC Teach lateral entry teacher program, and in the Master in School Administration. Four new DE Master’s degrees received Graduate School approval and are awaiting final University and UNC-General Administration approval. A DE Graduate Certificate in Counselor Education was approved and will begin admitting students in Fall 2009. Ten additional DE degree and certificate initiatives are in various stages of development. Flexible Access added 21 new courses and 24 new faculty members. Additionally, five courses were offered at corrections facilities through the Youth Offender Program, a federally sponsored program that has been shown to be effective in reducing recidivism rates.

In May 2009 the new DE “Focus on the Future” website was launched, with the aim of providing program information to prospective students. The “Focus on the Future” website was designed from the student perspective, allowing comparison among DE programs and providing students with the most pertinent information: Is this program for me? What will I learn? What can I do with this? When can I start? How long will it take? How much will it cost? How do I apply? The Web site design also provided referrals to academic advising, financial aid, career services and resources, and links to other distance education
programs in the UNC system. The website (distance.ncsu.edu) received numerous accolades from faculty, students, DE program directors and the general public.

The relocation of DELTA and its Distance Education unit to Venture II on Centennial Campus enabled expanded services for faculty and students. 13,486 exams were administered, 10,921 in-house and 2,598 remote proctoring sessions arranged. Advising services managed 1,801 student contacts, and more than 4,000 student applications were reviewed and admissions decisions made. DE installed a rich media mini-studio, which enables faculty to record full length lectures, review sessions, and other course components. DE also assisted with the implementation of Mediasite rich media into 10 video classrooms.

**Instructional Support Services**

DELTA Instructional Support Services (ISS) increased overall participation in DELTA training programs by 11.6 percent in FY 08/09, while at the same time increasing production, contributing to 21 course projects, continuing the large course redesign (LCR) pilot, and successfully implementing the Moodle learning management system (LMS) pilot.

DELTA ISS offered 188 regularly scheduled workshop offerings attended by 1,805 participants, an increase of 15 percent from FY 07/08. New this year, ISS offered a number of online workshops that were viewed more than 350 times. ISS staff conducted custom training sessions to various departments with a total of 164 participants, a 30 percent participation increase from FY 07/08. A seven percent increase was also seen at DELTA’s annual Summer Institute for Teaching and Learning with Technology, which had 42 participants in 2009.

The ISS production staff provided services and support to faculty involved in 21 major course production projects, primarily generated by the Large Course Redesign (LCR) pilot program, the IDEA Grants program, and DE programs requesting production support. ISS staff spent over 5,500 hours working on course-specific production projects. They spent an additional 500 hours developing instructional resources that can be used across a multitude of courses, including a Flashcard tool, a student orientation for Moodle, a Flash media player, and reusable college-level templates for PowerPoint, Web sites, course flyers and Moodle themes. Additional projects completed by the production staff in FY 08/09 include marketing initiatives (DELTA space design, a large-scale redesign of the DE Web site, and DELTA and DE program marketing) and the creation of the DELTAwire (DELTA’s news site).

Over 600 hours were dedicated in support of five on-campus, large enrollment courses targeted for an initial pilot LCR redesign. Initial data from two of the courses indicates that GC 120 was able to increase enrollments while maintaining student learning outcomes, and MAE 206 decreased the number of students with Ds and Fs after implementing the pilot redesign. Several other LCR courses were also served via consultations with DELTA ISS staff with LCR expertise.

Finally, DELTA ISS, in collaboration with other DELTA units and three colleges (College of Education, College of Natural Resources, and College of Agriculture & Life Sciences) successfully implemented a pilot of the Moodle LMS and recommended that the campus strategically move to an open source LMS solution, underpinned by Moodle and WolfWare. ISS staff continued to support other campus LMSs, which collectively are used by about 89 percent of NC State students.
Educational Technology Services

Educational Technology Services (ETS) was engaged in a number of diverse programs that allowed them to provide service to teaching and learning. Three significant programs included development and support surrounding DELTA’s learning management systems (LMSs), the initiation of video podcasting, and the launch of the Rich Media integration program.

Changes to NC State’s LMSs, particularly preparing to migrate from Vista to Moodle, was a focus for ETS’s Applications Development and Applications Support. In FY 08/09 they created enterprise level systems for Moodle, Elluminate, and DELTA Intranet applications. They also created a distributed enterprise level architecture to provide more redundancy and fault tolerance in the Moodle service. This also allows for more load to be handled by the complete system than would be possible with a single system. These groups also completed migration of data feeds from the Legacy student system to SIS during the spring 2009. This data is used by our three LMSs (WolfWare, Vista, MoodlePilot) as well as DELTA business applications reports.

In FY 08/09 ETS’s Media Distribution Services (MDS) set the stage for a shift from distributing DE course lectures on DVDs to delivering them as video podcasts. While other units were not ready to make this shift during this year, conversations, research, and a pilot set the stage for this shift in FY 09/10. Distribution of DVD sets throughout FY 08/09 year was normal, however, as online podcast files became available, student use of DVD sets dropped off precipitously. By the end of FY 08/09 Media Distribution had encoded 70 complete courses consisting of over 2,000 individual MPEG-4 files. The podcast files were virtually error free. Heavy student use of the online files made elimination of DVD distribution possible.

In the fall of 2008, Video Communication Services (VCS) launched a Rich Media integration program into all DELTA classrooms, significantly boosting the quality of video courses offered online. With the emergence of Rich Media applications that combines audio, video, and synchronized instructional content, as the preferred method of distance education delivery, DELTA is able to provide a richer, more dynamic experience for the growing number of students learning through distance education.

Marketing and Partnership Development

DELTA’s Marketing and Partnership Development (MPD) unit achieved objectives in FY 08/09 by 1) using various online interactive avenues to market DE programs and track results for those campaigns, and 2) researching and planning the Focus on the Future redesign for the Distance Education website.

Distance Education integrated interactive marketing initiatives in FY 08/09 were targeted at driving traffic to the DE landing page, where users were encouraged to download a brochure, search for DE programs, and inquire about DE programs. They included Yahoo, Google, and MSN campaigns and tracked click through rates and conversions.

The goal of the Focus on the Future website redesign was to assist prospective students in choosing among Distance Education learning options to optimize their future career prospects through enhanced skills or training for a new career. Technical research included the integration of Search Engine Optimization
(SEO), Web site analytics and metrics to maximize the search capabilities of the new Web site and drive people to NCSU DE programs. The research results indicated that the Web site revision elevated the website to the top three rankings in the top three search engines over 80 percent of the time.

**Finance and Business Office**

The Finance and Business Office launched an internal “Shout Out” program, developed to allow fellow coworkers, staff, and supervisors the ability to recognize someone for a job well done, nice deed, etc. This program has boosted moral and has really taken off in DELTA. Also in FY 08/09 the Finance and Business Office redrafted their Telecommuting SOP to promote general work efficiencies, to create an environmentally sensitive unit, reduce fuel consumption, and create a family-friendly workplace. Additionally, to ensure a successful business continuity plan, the Finance and Business Office determined that most DELTA employees can operate from home in case of an emergency, by way of telecommuting.

**Research**

DELTA was engaged in a variety of research areas relating to new distance education programs, incorporating new and emerging technologies in instruction, applications support surrounding a new Moodle system, podcasting technology, and the *Focus on the Future* website redesign.

**Blended MBA Program:** Rebecca Swanson served on the MBA Blended Distance Education Task Force comprised of College of Management administrators and faculty. The group researched the potential interest in a blended MBA program, and its feasibility, based on current literature, a market research study, and benchmarking of eight universities that offer distance or blended distance MBA programs. She was named a co-PI in an Animal Genomics USDA grant awarded in 2008-09 to help their Ph.D. students develop and teach online courses as part of their preparation as future faculty.

**New and Emerging Technologies in Instruction:** Staff throughout DELTA researched technologies such as Drupal, Moodle, Clickers, Elluminate, LecShare, CourseGenie, WordPress, Mediasite and their use in distance, blended, or face-to-face learning. Instructional Design staff also participated in online collaborative video editing research in collaboration with the College of Natural Resources.

**Moodle support:** The Applications Support team has researched the switch to a fully-clustered and highly-available Moodle system with redundant front-end nodes and redundant MySQL database servers.

**Podcasting:** Media Distribution has been deeply involved in research related to podcasting video for DE courses including MPEG-4 file encoding parameters, HTML and RSS code-writing, and Telestream Episode Engine Pro encoding and transcoding.

**Focus on the Future, DE Website Redesign:** Much research informed the new direction of DE’s website redesign: *Focus on the Future*. The site purpose was to assist prospective students in choosing among Distance Education (DE) learning options to optimize their future career prospects through enhanced skills or training for a new career. Technical research included the integration of Search Engine
Optimization (SEO) and website analytics and metrics to maximize the search capabilities of the new website and drive people to NCSU DE programs.

Staff

Changes

Due to staff turnover and the creation of new positions, 12 new staff members joined DELTA in FY 08/09. Two employees were promoted, and many positions were reclassified as a result of career banding. As needed, students, vendors, or professional temporary staff were hired. Several part-time and full-time positions were eliminated because of university-wide budget cuts.

Professional Development and Activities

Although some professional development was eliminated due to budget constraints, DELTA staff members from all units were active in professional development and committee service and outreach activities, both within and outside of the NC State community. Staff attended and presented at conferences including EDUCAUSE, the North Carolina Distance Learning Association Virtual Conference, the UNC Teaching and Learning with Technology Online Conference, the Association for Educational Communications and Technology Conference, and many others. Two DELTA staff members also completed certificate training programs: Blackboard’s Certified Trainer program (Andy Click) and Microsoft Certified Application Specialist in Word 2007, Excel 2007, PowerPoint 2007, and Outlook 2007 (Beth Shepherd).

Our staff served on committees, within and beyond the university, including the Board of Directors of the National College Testing Association (John Pugh), the University Standing Committee on Evaluation of Teaching (Donna Petherbridge), NCSU Academic IT Directors (Lou Harrison), president of the North Carolina Distance Learning Association (Kay Zimmerman), and University Courses and Curricula Committee, Substantive Change Review Team, Student Information Systems Advisory Team, and Enrollment Planning Committee (Rebecca Swanson). See DELTA unit reports for a detailed list of conferences attended, papers presented, and committees served on.

Awards

DELTA staff members received the following recognition and awards in FY 08/09:

- DELTA ISS provided instructional design and multimedia support for FS 201 Food Safety, taught by Dr. Keith Harris, which was chosen as the 2009 Gertrude Cox Award winner (see http://www.ncsu.edu/gertrudecox/winners/).
- DELTA ISS Creative and Multimedia Team. The NC State Copyright Brochure, designed and created by this team, was chosen for a juried exhibition of design in North Carolina for the DXR
Design Expo at the Mint Museum of Craft and Design in Charlotte and Flanders Art Gallery in downtown Raleigh, NC.

- Larry Evans was honored at the 23rd MCA-I Carolina Silver Reel Awards Festival by the Media Communications Association International, the global community for media communication professionals, with its Craft Award for directing the video "North Carolina Soars" for NC General Aviation.

- Stacy Gant, Associate Director of Faculty Development and Support, was the winner of the 2009 Awards for Excellence (EPA, Provost’s Unit).

- Lee Ann Gillen, Instructional Designer, was nominated, along with Karen Tharrington (faculty member) for the Gertrude Cox Award (see http://www.ncsu.edu/gertrudecox/winners/).


- Monica Price received a Ph.D. in Public Administration from NC State.

- Kay Zimmerman was the president of the North Carolina Distance Learning Association (NCDLA) this year. Under Kay’s leadership, USDLA rated the NCDLA virtual conference as the best state conference for all USDLA state chapters.

**Diversity, Retention, and Staff Well-Being**

**Diversity**

DELTA is committed to supporting diversity, both in DE programs and initiatives and in the workplace. Some DE initiatives to foster diversity in FY 08/09 include the following:

- A report based on a study of the Northampton County school system issued by the DE Assessment and Diversity unit identified factors contributing to DE student retention, attrition, and progress toward degree. Several initiatives are underway based on those findings to promote student diversity and establish community relations that encourage DE enrollment.

- DE Assessment and Diversity partnered with the College of Natural Resources to deliver the Diversity Summit by videoconferencing and Web to broader audience.

- Development began for a Diversity and Leadership course for the School of Public and International Affairs.

- Five courses were offered by NC State Faculty at corrections facilities though the Youth Offender Program, a federally-sponsored program that has been effective in reducing recidivism rates.

- DE Assessment and Diversity participated in the Native American Educational Diversity Initiative. The first project is a math primer course.

- Development is underway to produce a series of short diversity presentations or “Diversity Bytes” in collaboration with Rupert Nacoste, Professor of Psychology at NC State.
• MPD has developed a marketing partnership with the NC State Graduate School. Brett Locklear, Graduate School Director of Marketing and Diversity Outreach, markets to diverse audiences at education fairs, through specific diversity programs (UNCF, Gates Foundation, etc.) and will co-market all distance education graduate programs. The Graduate School reaches a very broad and diverse prospective student audience and DELTA has the marketing technical expertise to double graduate school marketing (on campus or online) without increasing resources.

DELTA also works closely with NCSU Human Resources and NCSU Office of Economic Opportunity to ensure compliance when hiring DELTA staff. Additionally, every effort is taken to advertise open positions in diverse trade magazines, newspapers and websites to draw a wide diversity of candidates to apply for our positions.

Retention and Staff Well-Being

DELTA has experienced a turnover rate of less than 1% in FY 08/09. In an effort to retain high performing employees who are satisfied with the DELTA working environment, we are developing an employee survey to determine why employees stay at DELTA. In turn, we will develop a retention plan based on these findings that defines areas that produce happy, motivated and empowered individuals. This resulting retention plan is aimed at promoting a work environment that fosters personal and professional growth, and promotes harmony and encouragement on all levels.

DELTA sponsors events and programs designed to increase staff morale, and a feeling of belonging and well-being. In an effort to boost staff morale during the budget freeze, the DELTA Finance and Business Office started the Shout Out program, a way coworkers/staff/supervisors the ability to recognize someone for a job well done or a nice deed by posting a note on a bulletin board. Also, the DELTA Activities Committee organizes events such as HR sponsored spring fun walk, lunch outings, fall festival, Thanksgiving feast, and DELTA Holiday party.

Additionally, in FY 08/09 DELTA was tasked with re-drafting their Telecommuting SOP to promote general work efficiencies, to create an environmentally-sensitive unit, reduce fuel consumption, and create a family-friendly workplace.

Concerns and Recommendations for the Future

While each DELTA unit has specific concerns related to their projects, resources, and university involvement, the concern of inadequate resources is shared by DELTA as a whole. In a difficult budget year such as FY 08/09, resources have been cut or have ceased to grow, endangering the long-term success of DELTA’s programs and services. Also, DELTA staff has been restricted from attending key conferences and training initiatives that directly contribute to professional growth, and that allow our employees to keep abreast of rapidly changing technologies. There is great concern that DELTA may lose funding or staff, either from position cuts or from employees leaving, and that this will impact programs and services, such as

• **DE Testing Facilities and Staffing:** Funds for temporary staff and rental of additional space during peak exam periods may be needed in the future to meet proctoring needs.
• **Support Calls:** The volume of support calls continues to remain high, but steady. Currently, this volume is manageable by our existing faculty support staff (including student/temp employees), and a 3% decrease in volume was noted from last year. However, for the level of support to remain sustainable, DELTA must maintain all existing resources (e.g. keep funding our student employees), and continue collaborating closely with the OIT Help Desk to leverage their support for tier one/solution-ready calls to avoid significant increases in call volume.

• **Moodle Deployment and DELTA Support Applications:** Positions for one Web designer and one Moodle developer were cut as a result of budget restrictions. The loss of the Moodle position will slow deployment of some features of our new LMS, powered by Moodle. In addition, these losses will slow deployment of new DELTA support applications and may result in halting development/support of existing applications as priorities are adjusted.

For additional unit-specific concerns and recommendations, please see each unit report below.
Distance Education

Summary

DELTA’s Distance Education (DE) unit helps optimize NC State’s land grant mission by providing learning opportunities to students wherever they are located. In support of this mission, DE administers enrollment planning; program planning and development; preparation of DE course schedules; student advising, enrollment, and registration services; DE faculty and student support services; local and remote exam proctoring; assessment and diversity initiatives; and educational technology services. Ongoing collaboration with other DELTA units provides Web site design, maintenance, and updates and publicity for learning opportunities available through NC State’s DE programs.

Significant accomplishments during FY 08/09 include the following:

- enrollment growth
- planning and development of new DE programs
- the launch of a new DE Web site
- the migration of student enrollment management to the SIS online interface
- the establishment of a rich media mini-studio recording room
- the expansion of DE faculty and student services as a result of the DELTA relocation to Venture II

Programs

Enrollment growth

During FY 08/09, 11,059 students enrolled in 1,148 DE courses and sections taught by NC State faculty in 48 degree, certificate, and teacher licensure programs. 1,651 additional students registered for DE courses over the previous year. Total enrollments of 21,162 and 61,171 student credit hours achieved a growth of 17.6% over the previous fiscal year. The growth enabled Distance Education to meet its enrollment projections and continue the growth trajectory toward the FY 17/18 enrollment goals established by the university.
New DE Programs

All NC State colleges offered courses through Distance Education in FY 08/09, involving more than 250 faculty. Twenty-six new faculty offered courses through the Flexible Access program. A Master of Arts in Teaching was launched, and new cohorts began in the Ed.D. in Adult and Community College Education, NC TEACH lateral entry teacher program, and the Master in School Administration. A Graduate Certificate in Counselor Education was approved and will begin admitting students in Fall 2009. Four new master’s degrees received Graduate School approval and await final university, GA, and SACS review and approval: Master of Science in Environmental Assessment; Master of Parks, Recreation and Tourism Management; Master of Geospatial Information Science and Technology; and Master of Integrated Manufacturing Systems Engineering. Additionally, ten DE degrees and certificates are in the planning and development phase.
The current distribution of DE course and program SCHs by College is indicated below:

![Pie chart showing FY 08/09 Distance Education SCHs by College]

**New DE Web Site**

In response to the economic downturn a new DE Web site was launched in May 2009. The DE office received numerous requests from prospective students for increased access to Distance Education opportunities. There was an urgent need to optimize workplace prospects through enhanced skills or training for a new career. The “Focus on the Future” Web site was designed from the student perspective, allowing comparison among DE programs and providing students with the most pertinent information: Is this program for me? What will I learn? What can I do with this? When can I start? How long will it take? How much will it cost? How do I apply? The Web site design also provided referrals to academic advising, financial aid, career services and resources, and links to other distance education programs in the UNC system. This initiative involved all DELTA units, working within a constrained time frame and with limited resources, to bring the project from concept to completion. Protocols were also established to
provide timely updates and announcements. The Web site (distance.ncsu.edu) received numerous accolades from faculty, students, DE program directors and the general public.

**Expansion of DE Faculty and Student Services**

The relocation of DELTA and its Distance Education unit to Venture II on Centennial Campus enabled expanded services for faculty and students. The new facilities provide a reception area for students and two testing rooms with a total of 36 work stations, 27 computer stations and 9 paper-based exam stations. 13,486 exams were administered, 10,921 in-house and 2,598 remote proctoring sessions arranged. Advising services managed 1,801 student contacts, and more than 4,000 student applications were reviewed and admissions decisions made. DELTA hosted the spring 2009 DE Open House, providing orientation sessions, faculty-student interactions, and a tour of the testing facilities.

**Establishment of a Rich Media Mini-Studio Recording Room**

The new location also accommodated the installation of a rich media mini-studio. This fully equipped rich media studio enables faculty to record full length lectures, review sessions, and other course components. The studio is designed to be user-friendly, with an environment that requires little training and expertise to record content for online distribution.

The Academic Technologies Coordination unit has received very high accolades for the studio’s configuration, ease of use, and the quality of the recorded material. For FY 08/09, consultations were provided for 76 faculty and staff. The mini-studio usage during spring and summer 2009 was 345 hours resulting in the recording of 4 complete courses, supplemental lectures for 11 courses, and some additional ad hoc recordings. The unit’s support of remote site rich media recordings facilitated 185 presentations and lectures, which were viewed 8,385 times. The unit also supported 14 live streamed events for 4 campus departments and 18 video projects, which also included 3,000 hours of post-production editing. Fifty informational videos for DE courses were also recorded by faculty to introduce students to their DE course. Thus far these recordings have been viewed 2,074 times.

The Academic Technologies Coordination unit assisted with the implementation of Mediasite rich media into 10 video classrooms. The unit created presentations and presenter protocols, branded players, established security rights based on enrollment, created lecture pages, and edited presentations when requested by faculty. Seventy courses were recorded with approximately 1,200 students enrolled. The unit has created downloads of all lectures, making them available from the WolfWare course lockers. This provides schedule flexibility for students who may lack adequate bandwidth to stream video or do not have access to the Internet during the time needed to view their lecture. The initial rollout was very successful with 99.9% + uptime and only 300 minutes of server downtime. The recorders captured all lectures with no major failures, and no lost lectures.

A significant decline continued in the demand for DVD-based DE courses, due in large part to the rapid growth of robust, interactive, online formats. This trend prompted the decision to move all DE courses to online delivery formats, effective with the spring 2010 semester. Students have the option to request DVD format materials if regular access to a computer and broadband Internet is not available. An iPod delivery option is in beta testing that will provide great access and portability of certain course content.
Research

Rebecca Swanson served on the MBA Blended Distance Education Task Force comprised of College of Management administrators and faculty. The group researched the potential interest in a blended MBA program, and its feasibility, based on current literature, a market research study, and benchmarking of eight universities that offer distance or blended distance MBA programs. She was named a co-PI in an Animal Genomics USDA grant awarded in 2008-09 to help their Ph.D. students develop and teach online courses as part of their preparation as future faculty.

Staff

Changes

John Pugh assumed the new position of Assistant Director, Distance Education Testing Services.

Sharon Broere was hired as Assistant Director, Distance Education Administrative Services.

Samantha Povia was hired as Testing Services Support, providing full-time assistance for on-site and remote Distance Education proctoring services.
Larry Evans was hired as Technology Support Analyst, Academic Technologies Coordination.

**Professional Development and Activities**

**Professional Development**
Laura Stephenson and Larry Evans took several courses in the use of Mediasite rich media.


Monica Price took courses through the NCSU Human Resources Quickstart Program – modules I-IV and additional HR courses.

**Outreach Activities**
DE staff provided representation for NC State’s DE learning opportunities at the following:

- DE Student Open House
- NC State’s Transfer Student Orientation
- NDS Student Open House
- Joyner Visitor Center
- Progress Energy Education Fair
- Credit Suisse Education Fair
- Fort Bragg Education Fair

Melissa Williford compiled and submitted the NC State Distance Education information for the US News & World Report survey and Peterson’s Guide to Distance Learning survey.

**Staff Presentations and Publications**

Laura Stephenson, Martin Dulberg, and Rob Grau, presentation at UNLEASH 2009 conference, Madison, WI, April 2009: *How NC State University Deployed Mediasite at an Institutional Level, Lessons Learned*

Laura Stephenson, DELTA workshop, Spring 2009: *Mediasite: Basics for Recording Your Class or Workshop.*

Monica Price, presentation at UNC DE Forum, December 2008: *Enhancing the Participation of Underrepresented and Minority Students in Distance Education*

Monica Price, presentation, April 2009: *Distance Education: A Component of the Education Access Toolkit.*
Rebecca Swanson, presentation to the Deans Council and DELTA Advisory Committee, *DE Web Site Initiative: Focus on the Future*.

Rebecca Swanson, presentation to the faculty and administrators of King Saud University, Saudi Arabia: *Distance Education at NC State*.

Rebecca Swanson published a review of *Lowcountry Hurricanes: Three Centuries of Storms at Sea and Ashore* in *South Carolina Historical Magazine*, vol. 109 (2008).

**Committee Assignments**

Monica Price served on the African American Coordinating Committee and the University Assessment Work Group.

Lynda Hambourger served as a member of the NC State Adviser Roundtable and as DE coordinator for the Focus on the Future Web Site Conversion.

Sharon Broere served on SIS Admissions Advisory Board and as Functional Trainer for SIS Implementation.

John Pugh was nominated to Board of Directors, National College Testing Association.

Larry Evans served on the Mediasite User Group.

Laura Stephenson was a Grant reviewer for the N.C. Tobacco Trust Fund Commission, and served on the MCNC Capture Infrastructure Task Force, the RightNow Implementation/Upgrade Team, and the Course Web Template Committee, and the Mediasite User Group.

Rebecca Swanson served on the University Courses and Curricula Committee, Substantive Change Review Team, Student Information Systems Advisory Team, Enrollment Planning Committee, Admissions Background Review and Investigation Committee, Blended MBA Task Force, Non-Credit DE Ad Hoc Committee, and GIS Faculty Committee, Ex Officio.

Melissa Williford served on the Study Abroad Scholarship Selection Committee, the SIS Advisory Committee, the BASE (Beyond Academic Support Excellence) Technology team, a partnership with the Wolfpack Club and NCSU.

**Awards**

DE staff members received the following recognition and awards in FY 2008-09:

- Monica Price received a Ph.D. in Public Administration from NC State.
Larry Evans was honored at the 23rd MCA-I Carolina Silver Reel Awards Festival by the Media Communications Association International, the global community for media communication professionals, with its Craft Award for directing the video "North Carolina Soars" for NC General Aviation.


Diversity, Retention, and Staff Well-Being

- A report based on a study of the Northampton County school system issued by the DE Assessment and Diversity unit identified factors contributing to DE student retention, attrition, and progress toward degree. Several initiatives are underway based on those findings to promote student diversity and establish community relations that encourage DE enrollment.
- DE Assessment and Diversity partnered with the College of Natural Resources to deliver the Diversity Summit by videoconferencing and web to broader audience.
- Development began for a Diversity and Leadership course for the School of Public and International Affairs.
- Five courses were offered by NC State Faculty at corrections facilities though the Youth Offender Program, a federally-sponsored program that has been effective in reducing recidivism rates.
- DE Assessment and Diversity participated in the Native American Educational Diversity Initiative. The first project is a math primer course.
- Development is underway to produce a series of short diversity presentations or “Diversity Bytes” in collaboration with Rupert Nacoste, Professor of Psychology at NC State.
- Student and faculty evaluation of DE services provide input for planning new services and enhancement of existing services.

Concerns and Recommendations for the Future

- The DE/campus tuition differential places a financial burden on students and inhibits the optimization of course offerings and inter-institutional collaboration.

- Strategic Plan for Mediasite Production/Use on campus: There is a need for documentation of DELTA support for rich media services, including consultations with departments who purchase rich media recorders, faculty training and support, and remote recordings.

- Unprecedented enrollment growth maximizes the DE testing facilities and staff. Funds for temporary staff and rental of additional space during peak exam periods may be needed in the future to meet proctoring needs.
• Budget constraints hamper the expansion of the Youth Offender Program, and funding for NC State’s participation in the high school students online education program Learn and Earn.

• An important priority is to develop military-friendly interfaces with DE programs, including procedural reviews, a military-specific Web page, and streamlined advising and mentoring services.
Instructional Support Services

Summary

DELTA Instructional Support Services (ISS) provides a wide range of training, consulting, production support and creative services for faculty, staff, and graduate students engaged in teaching and learning with technology (TLT) activities at North Carolina State University (NC State). Services include training and support (e.g. instructional house calls, regularly scheduled face-to-face and online workshops, seminars, custom training and help desk support), production services (instructional design, development, production, and project management), and instructional development (via a course redesign pilot program). DELTA ISS offers programs (the Instructional Technology Assistant Program, Summer Institute and IDEA grants) for faculty, staff and graduate students engaged in TLT efforts. DELTA ISS also supports the development of instructional resources, establishes partnerships and collaborations to support numerous TLT efforts, and internal to DELTA, contributes to DELTA Web communication and marketing initiatives. In addition, the DELTA ISS staff members provide leadership, support and training for campus Learning Management Systems (LMSs), including Elluminate, Vista, Moodle and WolfWare. The DELTA ISS group is a unit within Distance Education and Learning Technology Applications (DELTA), with an Associate Vice Provost (AVP) reporting directly to the Vice Provost for DELTA. In FY 08/09, DELTA ISS was comprised of twenty-two permanent staff positions and a number of students supporting a variety of activities.

During FY 08/09, DELTA ISS offered 188 regularly scheduled workshop offerings consisting of 61 unique workshops, including 19 newly created workshops. We utilized 28 trainers, including our partners in the Library and the College of Education. We had 1,805 regular workshop enrollments (an increase of 15% from FY 07/08). We trained 526 unique participants via regularly scheduled workshops (an increase of 5% from FY 07/08), including 206 faculty, 181 staff, 128 graduate students, seven undergraduates, and four others. In addition, we offered a number of online workshops that were viewed 350+ times. The most popular topics this year included Web development workshops (Dreamweaver, Fireworks and HTML) and classes focused on the LMSs available at NCSU (Vista, WolfWare, Elluminate, and Moodle). Individuals from CALS and CHASS comprised the largest portion of our workshop audience. Around 93% of participants responding to workshop evaluation questions agreed or strongly agreed that our workshops and training sessions met their expectations, a statistic consistent over the past eight years. Custom training sessions continued to be utilized as a way to deliver tailored training and support to various departments, with 164 participants (a 30% participation increase from FY 07/08, the majority from PAMS, Education and CHASS. Ninety-eight percent of respondents of the custom training surveys indicated that the training met their expectations.

In FY 08/09, 4,298 e-mails, phone, and in-person help calls and consultations were documented, a decrease of 3% from FY 07/08. A total of 4,019 Remedy calls and 279 Instructional House Calls were
reported. The slight decrease in Remedy calls was expected after an unusually high number of calls in fall 2007 were triggered by an unexpected Blackboard Vista issue. However, the overall decrease was only slight, as increasing numbers of calls in FY 08/09 were related to Moodle and Elluminate as usage increased for these tools. As expected, noticeable spikes for service requests continue to occur prior to the start of each semester, spring, summer and fall. The two colleges that regularly make the most use of our support services are CHASS and CALS. 420 customer support surveys were returned, with 92% of respondents indicating that their support issue was resolved satisfactorily, a statistic consistent with FY 07/08.

The Summer Institute (SI) had 42 regular participants (7% increase from SI 2008). The Summer Institute once again included an open enrollment elective day where faculty and staff not enrolled in the institute could attend, with 186 additional enrollments on that day (8.8% increase from FY 07/08). The program was again highly rated by participants, with 100% of program survey respondents indicating they would recommend the program to a colleague.

The Instructional Technology Assistant Program (ITAP) had 17 participants complete the program in FY 08/09, out of the 24 accepted (a 71% completion rate). CHASS, CALS and Education had the highest number of participants in the program, consistent over the past nine years. Due to budget cuts and reallocation of resources, this program will no longer be offered in FY 09/10. Additional information can be found at http://delta.ncsu.edu/itap.

We have begun to see an increased interest in the use of both Elluminate (our synchronous LMS) and Moodle (the LMS we will use to replace Vista), evidenced by the number of inquiries we received this year to our help desk. Moodle section requests rose from 42 in FY 07/08 to 825 in FY 08/09, and the number of Elluminate Moderator account requests more than doubled in the same timeframe: from 196 to 446. CALS is the largest holder of moderator accounts in Elluminate (including moderator accounts for extension use), followed by Engineering. About 89% of all NC State students take at least one course that uses an LMS in support of instructional activities. LMS usage across all systems can be monitored at: http://raleigh.delta.ncsu.edu/lms_reports/index.php, and LMS Strategy viewed at: http://wikis.lib.ncsu.edu/index.php/LMS_Strategy.

In a production capacity during FY 08/09, the DELTA ISS staff provided services and support to faculty involved in 21 major course production projects. These projects were generated by the Large Course Redesign (LCR) pilot program, the IDEA Grants program, DE programs that requested production support, other academic course production requests, and internal production requests.

Including internal production and marketing projects, there was a 27.8% increase in overall documented production hours between FY 06/07 & FY 07/08. Of the 21 major course production projects that were active during the year, ten were completed in FY 08/09 in terms of DELTA ISS production requirements. DELTA ISS staff spent over 5,500 hours working on course-specific production projects, a 16% decrease in course-specific production support hours documented from FY 07/08, explained by a decrease in part-time staff due to end of year budget cuts/freezes, and the allocation of DELTA staff resources to address other strategic needs, such as development of the new DE Web site and other DELTA marketing initiatives.
Over 600 hours were dedicated in support of five on-campus, large enrollment courses targeted for an initial pilot LCR redesign, including Precalculus I (MA 107); Precalculus Algebra and Trigonometry (MAE 111); Foundations of Graphics (GC 120); Engineering Statics (MAE 206); Engineering Dynamics (MAE 208). Initial data from two of the courses indicates that GC 120 was able to increase enrollments while maintaining student learning outcomes, and MAE 206 decreased the number of students with Ds and Fs after implementing the pilot redesign. Several other LCR courses were also served via consultations with DELTA ISS staff with LCR expertise.

1,783 hours were documented in support of IDEA grants (in support of DE courses) continued from FY 07/08 into FY 08/09, and included work on the following courses: ANS 206, ADN 219, CH 221, D492, FS 201, PS 498, all of which are now complete except for ADN 219. 2,833 hours we contributed toward FY 08/09 IDEA grants, including AND 411, ANS 105, ANT 253, BIO 488, CH 315, CS 224, CS 3xx, ECI 521, ECI 570, HI 208 and PHI 325. Additional hours were recorded in support of DE program support projects, including MA 105 and ST 101.

In addition to providing intensive support for course-specific production, DELTA ISS staff spent over 500 hours developing instructional resources that can be used across a multitude of courses, including a Flashcard tool, a student orientation for Moodle, a Flash media player, and reusable college-level templates for PowerPoint, Web sites, Media, course flyers and Moodle themes.

With the goal in mind of providing more timely information to the campus about TLT events, ideas and work in progress, DELTA ISS staff also dedicated time and energy toward a redesign of DELTAwire, a DELTA Web communication tool, in FY 08/09. The foundation of DELTAwire was established, with a soft launch in July 2009.

Marketing efforts within DELTA cover a wide range of projects and clients, both internal and external to the organization. Our in-house DELTA Creative & Multimedia team, housed in ISS, is responsible for maintaining NCSU brand consistency as well as building brand recognition for Distance Education and other units across the university in support of student recruitment. Documented marketing hours almost doubled (from 2,144 in FY 2008 to 4,134) in FY 2009. Marketing initiatives included the new DELTA space design, in collaboration with students from the College of Design, to support of DELTA’s move from Venture III to Venture II (580 recorded hours), a large-scale redesign of the DE Web site (820 recorded hours), and other projects such as DELTAwire, the DE brochure, marketing for PP315, DELTA photography, DELTA workshop brochures, and Summer Institute marketing support. External to DELTA, the team provided support to the LITRE Expo (120 hours), the Campus MovieFest (180 hours), and the development of an NC State Copyright brochure (300 hours).

Research hours increased by 26% from FY 07/08 to 08/09. Research efforts included work with a number of new and emerging technologies such as Drupal, Moodle, Clickers, Elluminate, LecShare, CourseGenie, WordPress, Mediasite. Usability studies were conducted for the student Flashcard tool that we developed, online collaborative video editing research was done in collaboration with the College of Natural Resources, and research efforts in the area of serious gaming and Second Life have helped us establish and strengthen various partnerships around campus, and with both public and private industry (e.g. Digital Games Research Center, Intellimedia, CALS/Entomology, USDA-APHIS, College of Design, SparkPlug
Games, Icarus Studios, VenuGen) as we consider how best to create online labs. Research efforts also included work related to student learning outcomes (from our Large Course Redesign efforts).

**Programs**

**Training and Support Programs**

The DELTA ISS team provides in-depth support to NCSU faculty, staff and graduate students engaged in teaching and learning with technology (TLT). Every semester, we develop a training curriculum that covers a wide range of topics – both technical and pedagogical. Our training schedule includes “hands-on” workshops taught in a training lab, and seminar-style classes delivered by DELTA staff and our partners. Additionally, we offer a custom training service, which provides classes tailored to a specific audience (typically faculty within a department). Our support services also include a “just in time” faculty help desk and in-person Instructional House Calls. Finally, we offered two certificate programs in FY 08/09: the Summer Institute for faculty and the ITAP program for support staff.

**Workshops & Seminars**

In FY 08/09, DELTA had 1,805 enrollments in our workshops and seminars (636 faculty, 662 staff, 463 graduate students, 24 undergraduates, and 20 other enrollments). We had more enrollments in our classes this year than in any other academic year since DELTA began offering workshops and seminars. Overall enrollments were up 15% over the previous year and faculty enrollments increased by 11% (see Figures 1 and 2). Over the past five years (with the exception of FY 06/07 when we had a significantly reduced workshop schedule), our number of faculty attendees has steadily increased, reaching an all time high this year (see Figure 2).

This year’s enrollment increase can be attributed to four main factors: (1) we were able to offer 27 more classes this year than we did in FY 07/08; (2) we are one of the only groups on campus providing Dreamweaver training, and these workshops were very well attended; (3) we began offering Moodle workshops in support of the NCSU Moodle Pilot, which attracted a lot of interest; and (4) our Training and Marketing teams in DELTA have been working to increase awareness of our classes by sending notices to listservs, posting Web site announcements, distributing informational brochures, etc.
Figure 1. Workshop & Seminar Enrollment and Attendance Totals: FY 2005-2009 (Note: the enrollment dip in 2007 can be attributed to the closure of the ITTC Training Labs in the Library for several months. During this time, custom trainings and other types of support increased to compensate for the decrease in the ability to deliver face-to-face workshops).
**Figure 2.** Number of Workshop Enrollments, by Participant Type: FY 2005-2009

<table>
<thead>
<tr>
<th></th>
<th>Faculty</th>
<th>Staff</th>
<th>Graduate</th>
<th>Undergraduate</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2005</td>
<td>223</td>
<td>464</td>
<td>324</td>
<td>61</td>
<td>9</td>
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<tr>
<td>FY 2006</td>
<td>440</td>
<td>499</td>
<td>302</td>
<td>8</td>
<td>20</td>
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<tr>
<td>FY 2007</td>
<td>331</td>
<td>258</td>
<td>111</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>FY 2008</td>
<td>488</td>
<td>582</td>
<td>241</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>FY 2009</td>
<td>575</td>
<td>561</td>
<td>358</td>
<td>15</td>
<td>20</td>
</tr>
</tbody>
</table>
Figure 3. Unique Trainees, by Participant Type: FY 2005-2009

526 unique faculty, students and staff were supported in FY 08/09 via our regularly scheduled workshops and seminars. This resulted in an overall increase of 5.2% (206 faculty, 181 staff, 128 graduate students, 7 undergraduate, and 4 other (see Figure 3). This resulted in a 6.18% increase in faculty, 14.62% decrease in staff, 50.59% increase in graduate, 16.67% increase in undergraduate, and 33.33% increase in other participation. FY 08/09 saw the highest total unique participation of the last five fiscal years, and reflected our work in targeting faculty enrollments as a priority.

This year, we offered a total of 188 workshops and seminars (27 more classes than the year prior). Of these classes, 19 were new and focused on topics such as creating educational animations, podcasting, using Mediasite, and instructional design for online courses. We were able to offer more classes in part because we hired three new staff members in the summer of 2008 (Beth Shepherd, Yiling Chappelow and Andy Click.) We also reached out to additional partners in DELTA, the Libraries, the College of Education, etc. to teach additional workshops and seminars. During the year, we had 28 instructors teaching classes – 6 more than in FY 07/08 (see Figure 4).
Figure 4. Number of Workshops, Teaching Hours, and Trainers: FY 2005-2009

Of the workshops and seminars we offered in FY 08/09, the following ten topics resulted in the greatest number of attendees (see Table 1). These data show that our most popular topics this year were Web development workshops (Dreamweaver, Fireworks, and HTML) and classes focused on the learning management systems available at NCSU (Vista, WolfWare, Elluminate, and Moodle).
North Carolina State University
DELTA Annual Report 2008-2009

Table 1. Workshops & Seminars with Highest Attendance: FY 08/09

<table>
<thead>
<tr>
<th>Workshop Title</th>
<th>Total # of offerings</th>
<th>Total # attended</th>
<th>Average # of enrollees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dreamweaver I: Creating and Publishing a Web Page</td>
<td>9</td>
<td>120</td>
<td>13</td>
</tr>
<tr>
<td>Dreamweaver II: Managing a Website with Templates and StyleSheets</td>
<td>9</td>
<td>103</td>
<td>11</td>
</tr>
<tr>
<td>Moodle (The Basics and Training for Fall 2008 Instructors)</td>
<td>7</td>
<td>95</td>
<td>14</td>
</tr>
<tr>
<td>Blackboard Vista: A Beginner’s Course</td>
<td>8</td>
<td>82</td>
<td>10</td>
</tr>
<tr>
<td>Fireworks: Creating Graphics for the Web</td>
<td>8</td>
<td>70</td>
<td>9</td>
</tr>
<tr>
<td>HTML Basics</td>
<td>7</td>
<td>61</td>
<td>9</td>
</tr>
<tr>
<td>An Introduction to the Learning Technologies Toolkit at NC State</td>
<td>8</td>
<td>70</td>
<td>9</td>
</tr>
<tr>
<td>Elluminate Moderator Training I</td>
<td>6</td>
<td>58</td>
<td>10</td>
</tr>
<tr>
<td>WolfWare: The Basics</td>
<td>7</td>
<td>50</td>
<td>7</td>
</tr>
<tr>
<td>Dreamweaver III: Advanced Cascading Style Sheets</td>
<td>6</td>
<td>46</td>
<td>8</td>
</tr>
</tbody>
</table>

Consistent with past years, we were able to deliver roughly 90% of our scheduled classes and only had to cancel ten of our workshops this year due to instructor illness, adverse weather, or low/no enrollment.

Table 2. Number of Workshops Scheduled vs. Taught: FY 2005-2009

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</thead>
<tbody>
<tr>
<td>Scheduled</td>
<td>182</td>
<td>247</td>
<td>132</td>
<td>162</td>
<td>188</td>
</tr>
<tr>
<td>Taught</td>
<td>168</td>
<td>233</td>
<td>123</td>
<td>157</td>
<td>178</td>
</tr>
<tr>
<td>% Cancelled</td>
<td>9.2</td>
<td>9.4</td>
<td>9.3</td>
<td>9.7</td>
<td>9.5</td>
</tr>
</tbody>
</table>

College Participation in Workshops & Seminars
Our workshops and seminars serve faculty and staff in all colleges at NCSU. Consistent with prior years, individuals from CALS and CHASS make up the majority of our audience (see Figure 4). There was also substantial participation (17%) by those in the “Other” category, which is comprised of campus units such as University Advancement, DELTA, the Libraries, Physical Education, R&R, the Office of the Provost, etc. Overall attendance by CALS and CHASS participants was up from the previous year, as was participation by faculty and staff in Education, Textiles and Vet Medicine (see Figure 5 and 6 for details).
Figure 5. FY 2009 Workshop Attendees, by College
Participant Reaction to Workshops
At the close of each workshop, DELTA instructors ask attendees to complete an online evaluation (http://delta.ncsu.edu/workshops/evaluation). In FY 08/09 we received 1,070 surveys from our workshop attendees, which is a 70% response rate. The survey data show that participants are extremely satisfied with our classes. Ninety-three percent of respondents said that the workshop met their expectations and 94% replied that the class was “according to what was advertised.” Ninety-five percent of attendees replied that our trainers provide individual help when needed and our instructors received nearly perfect scores for being timely (starting/ending on time) and proceeding in an orderly manner.

On the workshop survey, we close with an open-ended question which asks participants to provide “additional comments/suggestions about the instructor or the course.” Below are some select comments received this year.

- Very effective training. This workshop was well-paced, humorous, informative, and well organized.
- The course was taught at the right pace and easy to follow. Difficult concepts were explained in a clear way.
- Very interesting and informative. I knew little to nothing about creating wikis before this class and feel confident in experimenting with them now!
- This was a great class that everyone on campus should take some time [to attend]. I am really delighted that I can apply what I have learned in class and absolutely wow my department head! Job security!!!
This was an excellent course for a new faculty member. It was three hours well spent and offered me the information I needed to get my lab website up and running! Thank you so much.

In short this course was empowering. I have a whole new view of how to create websites in the most efficient manner.

This was the best workshop so far. I felt like I left the class with an actual working knowledge of the program and not simply an introduction. Thanks!

The workshop was great and did everything it said it would. It far exceeded my expectations. I can now use the survey tool! Thanks!!!

GREAT workshop--I learned a ton and immediately saw ways to use these ideas in teaching. Excellent instructor, too.

Exactly what I needed. Did not realize ability to create audio, video and PP for LMS applications was so easy.

Great job! Love all these great workshops DELTA puts forward and the instructors are a great help!

These comments, combined with the quantitative data, illustrate that our attendees are highly satisfied with both our workshop content and our instructors. The feedback we received this year is consistent with feedback from the past five years – further evidence that our DELTA training team is successful in delivering quality classes that serve our campus community well.

**Online Workshops & Seminars**

In 2008, we began recording select workshops and seminars for online viewing. We chose classes that are in high-demand and those that often have waiting lists, such as our Dreamweaver classes and LMS workshops. We received assistance from the DELTA Academic Technologies unit to put classes online using the classroom capture system, Mediasite. Since June 1, 2008, there have been 359 views of our Mediasite workshops and seminars; the most popular topics being *Dreamweaver I* and *Moodle: The Basics* (see Figure 7). Several of our classes held in Elluminate Live were also recorded. *Elluminate Moderator Training I* and *II* are also online and are accessed regularly.

To view our online workshops and seminars, visit the following Web sites:

- **Workshops**: [http://delta.ncsu.edu/learn/online_training/workshop_materials/](http://delta.ncsu.edu/learn/online_training/workshop_materials/)
- **Seminars**: [http://delta.ncsu.edu/learn/online_training/twt/](http://delta.ncsu.edu/learn/online_training/twt/)
Custom Training
This year the ISS team delivered seventeen custom workshops and one “overview” (a lecture/demonstration-style presentation, typically requested by a faculty member for his or her students). Each class was customized for the audience, and focused on a teaching and learning with technology topic.

In total, 164 participants enrolled in custom training events this year, which is a 30% increase from FY 07/08. However, the overall trend for custom trainings over the past five years has been a decrease in offerings (see Figure 8). We attribute this decline in requests for custom trainings to our successful effort to offer desirable topics (of sufficient quantity) as part of our regular training schedule, thereby reducing the need for special, “off model” classes.
Figure 8. Enrollments in Custom Training (including Overviews) by Participant Type: FY 2005-2009

Table 3. Requests for Custom Training, by Type: FY 2005-2009

<table>
<thead>
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<tbody>
<tr>
<td>Custom Workshops</td>
<td>27</td>
<td>33</td>
<td>28</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>Overviews</td>
<td>8</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>1</td>
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</tbody>
</table>

College Participation in Custom Training

This year, the majority of our custom training participants were from PAMS, the College of Education, and CHASS; we received no training requests from CVM, the Graduate School, or the College of Design (see Figures 9 and 10 for detailed information on colleges served by our custom training service). Some of the academic departments served by this year were Biological Sciences; Sociology and Anthropology; Accounting; Business Management; Curriculum and Instruction; Elementary Ed; Math, Science, and Technology Education; Adult and Higher Ed; Textile and Apparel, Technology and Management; Mathematics; and Microbiology. Custom training topics included:

- Collaborative Learning Online
- Creating an E-Portfolio
- Creating Professional PowerPoint Presentations with Graphics
- Elluminate Moderator Training
- Introduction to Blackboard Vista
Custom Training Attendees, by College: FY 2009

Figure 9. Custom Training Attendees, by College: FY 2009
Participant Reaction to Custom Training

We received 51 surveys on our custom training sessions (a 30% response rate.) The feedback we received was overwhelmingly positive, and our classes met the expectations of 98% of the respondents. Here are select comments drawn from the open-ended question at the end of the survey.

- Very helpful. Right on target with what we were hoping to get.
- Great instructors!
- Great instruction on tools. Look forward to using it.
- Wonderful! I would like to know more and will be looking into your other sessions.
- It was a very good overview, very professional.
- Excellent! I really enjoyed it and got a lot out of it!
- Nice learning experience.
- Very helpful. I want to get started so I can use this in my current position.
- Very Good!
We recognize that there is still a demand for custom training and we anticipate continuing to offer this valued service. Not only do custom trainings help meet the needs of faculty in a specific discipline, these classes also help fill the gaps between semesters and serve those unable to attend regularly scheduled workshops for various reasons.

Instructional House Calls and Help Desk Support
DELTA continues to offer personalized support to faculty and support staff on the effective use of instructional technologies. Our help desk services are provided via phone, e-mail and in-person consultations. These help calls are typically short, easy to resolve problems (and are tracked using Remedy). We also provide one-on-one assistance (Instructional House Calls) for longer, more in-depth issues (which we track with internal reports). For consulting services, our FY 2009 count is based on data from July 1, 2008 – June 30, 2009.

In FY 08/09, DELTA ISS staff resolved 4,298 documented e-mails, phone, and in-person consultations. This is an overall decrease of around 3% (from the 4,430 documented support calls and consultations in FY 07/08). A total of 4,019 Remedy calls and 279 Instructional House Calls were reported in our tracking systems during FY 08/09 (see Figure 11). The slight decrease in Remedy calls may be tied to a system-wide problem in which class roll data failed to transfer into Vista courses in fall 2007, leading to unusually high help call high numbers in the FY 07/08 data. The addition of the Moodle LMS to our supported services helps to explain why the decrease was minimal.

![Help Call Totals: FY 2005-2009](image)

**Figure 11.** Help Call Totals: FY 2005-2009
The number of Instructional House Calls provided by ISS has remained relatively consistent over the past few years, as has the ratio of use of this service among the various colleges across campus (see Figures 12 and 13). The two colleges that regularly make the most use of our Instructional House Call service are CHASS and CALS, which may be due in part to the large number of faculty and staff in those two colleges. CHASS has a total of 625 faculty and staff, while CALS has over 1,600 on campus alone.

**Figure 12. Instructional House Calls, by College: FY 2005-2009**

<table>
<thead>
<tr>
<th>College</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALS</td>
<td>118</td>
<td>79</td>
<td>66</td>
<td>66</td>
<td>83</td>
</tr>
<tr>
<td>CHASS</td>
<td>138</td>
<td>132</td>
<td>67</td>
<td>107</td>
<td>72</td>
</tr>
<tr>
<td>CED</td>
<td>48</td>
<td>47</td>
<td>21</td>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>Design</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Eng</td>
<td>35</td>
<td>14</td>
<td>7</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Mgt</td>
<td>14</td>
<td>21</td>
<td>18</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Textiles</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>CNR</td>
<td>25</td>
<td>27</td>
<td>11</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>CVM</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>FYC</td>
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<td>15</td>
<td>1</td>
<td>9</td>
<td>4</td>
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<td>Grad</td>
<td>17</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>5</td>
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<tr>
<td>Sch</td>
<td>50</td>
<td>40</td>
<td>16</td>
<td>56</td>
<td>48</td>
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<td>40</td>
<td>40</td>
<td>10</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
Figure 13. Percentages of Instructional House Calls by College: FY 2009

In addition to tracking Instructional House Call support provided to the colleges, we continue to track the number of Instructional House Calls and Remedy calls resolved each month to better capture support times. By tracking volume, we can better prepare staffing levels and plan programs around times that are notably busy consulting times. As expected, the largest volume of calls occurred at the beginning of the fall and spring semesters, though significantly larger in the fall (see Figure 14). Call volumes remain fairly flat throughout the summer sessions.
Figure 13. FY 2009 Instructional House Calls and Help Calls by Month
DELTA ISS staff members continue to track help calls by an associated product to better understand the relative use and support needs of our various supported services. As expected, most help calls are related to the major Learning Management Systems: Vista, Elluminate, and Moodle. The large "Other" category is made up of products used no more than 10 times in FY 08/09, suggesting that we may need to re-evaluate the need for some of the products used, and whether or not they can be absorbed into larger categories (see Figure 15).

This year revealed a large shift in relative product support, and thus presumably, usage. Calls related to the Vista system, which last year constituted more than half of total help calls over the year, dropped more than 20%, likely due to the announcement that our license for the Vista product is set to expire in 2011 and/or possibly because the faculty using this system are familiar enough with it at this point to need less support. At the same time, Moodle support grew from less than 1% of total calls to over 10% in a single year. The percentage of Elluminate calls, made up largely of Moderator account requests, more than doubled (see Figure 16).

**Remedy Product Usage: FY 08/09**

![Remedy Product Usage: FY 08/09](image)

*Figure 15. Remedy Product Usage: FY 2009*
Client Reaction to Remedy Calls

In addition to tracking products, our team continues to review customer surveys for all our help calls. The use of Remedy surveys helps us to keep a pulse on how our support staff is doing in responding to customer needs. Six questions are asked in the customer satisfaction survey, and respondents answer on a scale of "Strongly Agree" to "Strongly Disagree." Customers are not required to respond to every question from in the list.

Out of 4,019 Remedy calls resolved, a total of 420 surveys were submitted in FY 08/09 (a response rate of approximately 10%). Positive responses were the norm, with customers reporting that our staff members are highly courteous, respectful, knowledgeable and quick to help solve their problems (see Figure 17). Over 92% of respondents said that their problem or issue was resolved to their satisfaction. Only 2% of surveys were submitted by clients who had an unsatisfactory experience.

By a slim margin, our third question had the highest "Neither agree nor disagree" value (Q3: You were kept informed of the progress towards resolving this issue), as well as the highest number of unanswered submissions, which suggests the question may be confusing to our respondents. We will continue to work with the Remedy Advisory Committee to evaluate these surveys and improve question clarity where necessary.
Q1: The person assisting you was courteous and respectful.
Q2: The response to your request was timely.
Q3: You were kept informed of the progress towards resolving this issue.
Q4: The person assisting you was knowledgeable about the subject area of your request or able to refer you to someone knowledgeable.
Q5: The problem or request represented by this issue was resolved to your satisfaction.
Q6: You believe that you contacted the correct support agency when you sought assistance with this issue.

**Figure 17. Remedy Survey Responses: FY 2009**

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>321</td>
<td>331</td>
<td>288</td>
<td>304</td>
<td>322</td>
<td>327</td>
</tr>
<tr>
<td>Agree</td>
<td>57</td>
<td>66</td>
<td>74</td>
<td>68</td>
<td>65</td>
<td>68</td>
</tr>
<tr>
<td>Neither</td>
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<td>7</td>
<td>23</td>
<td>19</td>
<td>12</td>
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<td>Disagree</td>
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<td>6</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>No Response</td>
<td>26</td>
<td>9</td>
<td>29</td>
<td>24</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

*Selected Survey Comments:*

- "The swiftness and completeness with which my issue was solved was excellent, and I can only commend the effort and result. Thanks so much for all the help."

- "The person who helped me showed interest and excellence. If he didn't know the answer immediately, he took the time to find out the answer and call me back. I am very pleased."

- "Terrifically helpful, and very patient with me and my colleague's questions. I've taught at several universities, and the whole experience here was the most easy and efficient."

- "We could not offer the DE courses without this valuable help."
"You are amazing! Huge university with a zillion needy faculty asking obscure questions and you solve problems, usually within the day. You regularly remove technology roadblocks that would prohibit my ability to move forward on a task. I can’t thank you enough!"

**Summary**

This year, the ISS team resolved over 4,000 help calls and provided nearly 300 Instructional House calls, illustrating that these services remain extremely popular amongst NCSU faculty and staff. The LMSs (Vista, Moodle, WolfWare, and Elluminate) remain our most support-intensive tools, due largely to the sheer volume of faculty, staff and students making use of these systems. We have begun to see an increased interest in the use of both Elluminate and Moodle, evidenced by the number of inquiries we received this year to our help desk. In addition, Moodle section requests rose from 42 in FY 07/08 to 825 in FY 08/09, and the number of Elluminate Moderator account requests more than doubled: from 196 last year to 446 this year. Judging from years past, our busy times remain consistent: We continue to see a rise in support calls near the start of each semester as new courses are set up and content put online. Customer satisfaction remains very high, and NCSU faculty and staff repeatedly say our consulting services are invaluable to their successful TLT efforts.

**The Summer Institute 2009**

We continue to offer our annual Summer Institute (SI) as a way for faculty to learn about instructional technology tools and techniques that can be used to support teaching and learning at NC State. Based on final participation numbers, demand for the Summer Institute on Teaching and Learning with Technology remained high in FY 08/09. Although our prior year cap on participation in the program was 40, this year we were able to accommodate an additional six individuals, which resulted in a 12.5% increase from FY 07/08. This is the largest group that DELTA has ever supported during the Summer Institute.

A total of 45 participants attended the 2009 SI. Thirty-nine NCSU faculty members along with three support staff and three DELTA staff attended as guests. The original participant acceptance number for 2009 was 46. The first day of Summer Institute, we had one participant withdraw from the program.

For the second consecutive year, the largest group participating in the Summer Institute was from CHASS, followed by CALS (see Figure 18). Both of these colleges have historically been the most active in the Summer Institute.
Open Enrollment Elective Attendance:
During the final day of Summer Institute 2009, the sessions were opened to NC State faculty, staff and graduate students outside of SI to join as participants. As a result, attendance in workshops (also known as open electives) totaled 186 on that day. This is an 8.77% increase in attendance from FY 07/08 and a 14.81% increase from FY 06/07 (see Figure 19).
In addition, 66 unique participants took part in these workshops (also known as elective day workshops). Of those 66 unique attendees, 28 unique faculty, non-Summer Institute 2009 program participants, enrolled in and attended 11 workshops.

The topics for these open sessions included, but were not limited to: teaching with multimedia, teaching and learning with virtual worlds, an update on the Horizon Report, creating graphics and Web pages, teaching science online, and using Facebook and Twitter.

**Participant Reaction to the Summer Institute**

A survey was sent to Summer Institute participants within a week of the end of the program. Based on a response rate of 80% (37 participants), all respondents were highly satisfied in the overall quality of the 2009 Summer Institute. The majority of responses provided, indicated an Excellent (70%), or Very Good (24%) overall experience. Additionally, all respondents (100%) indicated they would recommend the Summer Institute to a colleague (another statistic consistent with previous years). The professionalism, helpfulness, technical knowledge, and accessibility of the DELTA staff were primarily ranked as “very good” or “excellent” by most respondents.

More detailed information based on this year’s Summer Institute is available on the DELTA Web site (at http://delta.ncsu.edu/docs/about/reports/SI2009__post-institute_report_FINAL.pdf).
ITAP (Instructional Technology Assistant Program)

This year, the Instructional Support Services team continued to oversee the Instructional Technology Assistant Program (ITAP). ITAP participants are NC State graduate students or staff members who are engaged in supporting faculty with instructional technology. ITAP participants attend approximately eight workshops throughout the semester and also work on a project related to online instruction for a faculty “sponsor”. Throughout the program, participants receive instruction and one-on-one consulting on the effective use of instructional technology.

ITAP was offered both fall 2008 & spring 2009 semesters this year, and two fundamental changes were made to the program. First, Moodle was emphasized as the LMS development platform (rather than Vista). Second, the project evaluation rubric was restructured to incorporate more qualitative components related to the individual project goals.

<table>
<thead>
<tr>
<th>College</th>
<th>Fall 2008</th>
<th>Spring 2009</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHASS</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>CALS</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>PAMS</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Vet</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Graduate School</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Honors Program</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 5. FY 2009 College Participation in ITAP

* Expected number of completions; project evaluations are still under way for Spring 2009

The highest ITAP participation in FY 08/09 was seen in CHASS, CALS, and Education (see Table 5). This is consistent with past years of the ITAP program.
DELTA’s Instructional Support Services team has run ITAP for 10 years, starting in the fall semester 1999. Over that time, we have trained 222 graduate students and staff who have been working with faculty to incorporate technology into education. The Colleges we have impacted the most are CHASS, CALS, and Education. (Figure 20 illustrates the breakdown of College participation.)

However, as a result of budget cuts and staff reallocations to other strategic priorities, DELTA has suspended ITAP indefinitely. From the budget perspective, suspending this program saves the cost of purchasing the Adobe Creative Suite of software for each participant. Additionally, with the adoption of Moodle as the underpinning for NC State’s next LMS, and the necessary training and support that accompanies this transition, we reallocated the resources in our department to meet those needs. ITAP has created many great resources for creating online teaching resources over the years, and we are revising and incorporating the ITAP resources into our other course development and support efforts.

**Figure 20.** ITAP Participation, by College: 1999-2009

DELTA’s Instructional Support Services team has run ITAP for 10 years, starting in the fall semester 1999. Over that time, we have trained 222 graduate students and staff who have been working with faculty to incorporate technology into education. The Colleges we have impacted the most are CHASS, CALS, and Education. (Figure 20 illustrates the breakdown of College participation.)

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Synchronous Learning Management System (Elluminate)*

During FY 08/09, Elluminate had a significant increase in usage, roughly doubling. Table 6 illustrates our growth in usage this year. Since Elluminate is open to all NCSU faculty and staff for professional purposes, it is used for traditional Registration and Records courses, departmental meetings, Extension meetings, and more. Figure 21 shows how Elluminate has continued to grow month after month.

<table>
<thead>
<tr>
<th></th>
<th>FY 07/08</th>
<th>FY 08/09</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderators</td>
<td>448</td>
<td>1,006</td>
<td>+125%</td>
</tr>
<tr>
<td>Meetings</td>
<td>2,126</td>
<td>3,880</td>
<td>+83%</td>
</tr>
<tr>
<td>Attendees</td>
<td>15,998</td>
<td>37,064</td>
<td>+132%</td>
</tr>
<tr>
<td>Recordings Viewed</td>
<td>4,452</td>
<td>9,545</td>
<td>+110%</td>
</tr>
</tbody>
</table>

**Table 6. Growth in Elluminate Usage.**

**Figure 21:** Number of Sessions by Month, Elluminate

Elluminate usage tends to vary depending on the days of the week (see Figure 22), and it tends to stay strong beyond the regular work day, such as in the evening hours between 6:00 PM and 9:00 PM (see Figure 23). This is most likely due to DE classes being offered in the evening.
Figure 22: Total Weekly Usage by day of the week, Elluminate

Figure 23: Average Weekly Participation by Time
CALS is the largest holder of moderator accounts in Elluminate, with a large number of these accounts used for extension purposes.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Total</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALS</td>
<td>335</td>
<td>156</td>
</tr>
<tr>
<td>Engineering</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>CHASS</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Natural Resources</td>
<td>51</td>
<td>3</td>
</tr>
<tr>
<td>PAMS</td>
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<td></td>
</tr>
<tr>
<td>Management</td>
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<td>1</td>
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<tr>
<td>Vet Med</td>
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<td></td>
</tr>
<tr>
<td>Undergraduate Studies</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

*Table 7. Elluminate Moderator Accounts, by unit/user type*

In FY 08/09, DELTA continued to teach the Elluminate Moderator Training workshop, which was taught 6 times to a total of 63 participants and a recording of the workshop was viewed 1 time. Additionally, ISS staff created a new Elluminate Moderator Training II: Tips and Techniques to emphasize best teaching practices in Elluminate. This class is taught completely online in Elluminate. It was taught 2 times to 31 participants and the recording was viewed 8 times. Also, we answered 824 Remedy calls related to Elluminate, a 124% increase from this type of call last year (these call numbers are included in previous Help Call numbers and are not in addition to them).

Additionally, NC State hosted the 2nd Annual North Carolina Elluminate Conference this year. This conference is hosted in conjunction with Elluminate, Inc. There were over 50 participants from NC State and surrounding colleges and universities. Greg Kraus and Beth Shepherd presented on "Using Elluminate at NCSU," showcasing how we utilize Elluminate on our campus at this conference.

**Learning Management Systems (Blackboard Vista, WolfWare and Moodle)**

During FY 08/09, both Blackboard Vista and WolfWare were in full production, integrated as a regular part of our LMS support structure. DELTA ISS staff continued to support the use of these LMSs through regularly scheduled workshops, custom training sessions, instructional house calls, the LearnTech Help Desk, and the Summer Institute and ITAP programs. During FY 08/09 (summer 2008, fall 2008 and spring 2009) a steady usage of both Vista and WolfWare are apparent (see figure below), underlying the importance of LMSs as part of the campus infrastructure. About 89% of all NC State Students take at least one course that uses an LMS in support of instructional activities.
As noted in the previous LMS Usage chart, Moodle, an open source LMS, is becoming an active component of the LMS suite at NC State. Our intentions are to use Moodle as part of our enterprise level LMS underpinning. Documentation of the campus decision to use Moodle can be found at: http://wikis.lib.ncsu.edu/index.php/LMS_Strategy. In support of Moodle, a number of new workshops and seminars were created to begin training on this LMS, and many new Remedy solutions were prepared to respond to frequently asked questions. In addition, DELTA ISS staff created a set of tutorials to help students get oriented to Moodle. The tutorial was initially created for use in an IDEA grant, FS 201, and has now been incorporated into several other courses (ANS 105, D 492 and PHI 325). We surveyed students to gather suggestions for improvements and additions to the orientation materials, made changes, and in the future these materials will be updated and incorporated more widely into other courses.

**Large Course Redesign**

Large Course Redesign (LCR) is the re-conceiving and rebuilding the delivery of a large-enrollment course to increase student learning outcomes and contain or reduce instructional costs, primarily by incorporating instructional technology. The National Center for Academic Transformation’s Pew Program in Course Redesign (http://www.thenca.org/index.html) advocates an approach that seeks to increase student learning outcomes and contain costs by focusing on the redesign of large introductory university courses. The Program defines large courses as those that are among the top 25 percent in enrollment, and/or the top 5 percent in enrollment in a college. By redesigning these courses, virtually every student who attends the university can be positively affected.
North Carolina State University
DELTA Annual Report 2008-2009

North Carolina State University began studying LCR and its potential impact on student learning in 2006. Established in 2007 as part of DELTA’s compact planning initiatives, the DELTA Large Course Redesign Pilot Grants program is providing financial and staff resources (instructional design, instructional technology and instructional development support) for faculty who are redesigning the delivery of a large-enrollment course to increase student-learning outcomes at the undergraduate level. Via this pilot approach, we are helping faculty develop strategies that blend effective teaching and learning with innovative ways to use existing instructional technology.

Major Accomplishments
DELTA ISS staff spent over 600 hours dedicated to the LCR program in FY 08/09 of which 125 hours are captured in the DELTA ISS production team’s data – the remaining hours, 475, were contributed by the Associate Director for Instructional Development and others outside the production team). ISS worked closely with Registrar’s Office to identify high enrollment undergraduate level courses (200 level and below) that could benefit from the LCR initiative. Based on the analysis of grade distributions, drop, fail, withdrawal (DFW) rates and course repeats from the fall 2006 through spring 2008 semesters, and based on the willingness of the colleges and departments to consider course redesign, five courses were targeted for pilot redesign: Precalculus I (MA 107); Precalculus Algebra and Trigonometry (MA 111); Foundations of Graphics (GC 120); Engineering Statics (MAE 206); Engineering Dynamics (MAE 208). The staff focused on research, project planning and development, faculty and staff training (consultations, workshops and seminars), and course assessment.

The common goals for each redesign were to decrease DFW rates, establish consistent content coverage across all course sections (for courses that consist of multiple sections), provide in-class and online student-centered learning activities, and improve student knowledge transfer by focusing on mastery learning. By achieving these goals, each LCR team strives to improve student learning by maintaining or reducing the cost of instruction and course delivery. In response to increasing enrollments and finite institutional capacities, faculty and ISS are finding better ways to utilize faculty and TA resources (e.g. by adopting computer automated assessment) and limited classroom space (e.g. replacing in-class sessions with online activities).

DELTA ISS staff, two professors who received DELTA LCR Pilot Grants (GC 120 and MAE 206) and two professors who have prior experience redesigning courses shared detailed information about their course redesign to the campus community at the fall 2008 Teaching, Learning and Technology Roundtable (TLTR) meeting. Moderated by ISS, the TLTR featured a faculty panel who talked about their experiences applying students’ learning styles, activity-based learning and instructional technology to teach courses in new ways (http://courses.ncsu.edu/ww587/common/tltr_lcr_session/).

Foundations of Graphics (GC 120)
GC 120 is an introductory course providing orientation to the language of technical graphics for students majoring in any field. The course is designed to help students develop and refine their ability to use this universal technical language within the context of the concurrent engineering design process as well as gain an understanding of how computer-aided design (CAD) is used to create objects that students use on a daily basis. The course serves over 850 students annually. It is divided into 15 to 17 sections in both fall and spring semesters, and 4 to 6 sections summer semester. These are taught by five to seven faculty
members and adjunct instructors, and one graduate teaching assistant (TA).

DELTA LCR Pilot Grant funding was awarded to implement automated assessment for GC 120 (see Table 8), which would reduce faculty time required to grade assignments and exams (automated feedback for SolidWorks modeling assignments); increase the number of student enrollments per section; give students more control over their learning; provide students with individualized assistance; and create consistency of teaching and learning across sections.

A course Web site was created using Moodle and contains supplemental learning materials for students to use outside of class: videos of sketching activities and SolidWorks modeling; synchronous online study sessions; and computer-based quizzes and exams with immediate feedback. Quantitative and qualitative assessment of the redesigned course began in spring 2009. Baseline data from the conventional course was compared to the redesigned, blended course to measure equal or improved learning outcomes based on quizzes and exams, sample project comparisons, and student and faculty attitude surveys. Based on initial survey data, student learning in the blended course is equal to traditionally taught courses. Many students said the blended course gave them more control of their learning. The online course materials helped students learn SolidWorks, and supplemented in-class instruction. They could set their own schedule for when they wanted to work on homework, study and take exams. The incorporation of instructional technology has made way for faculty to increase enrollments in three sections (fall 2009), which amounts to a course enrollment growth of 7.5% from fall 2008 and 9% from spring 2009. The faculty anticipate the continued increase in student enrollments as the automated feedback for SolidWorks modeling is implemented in fall 2009.

Table 8. GC 120 Project Summary

<table>
<thead>
<tr>
<th>Faculty:</th>
<th>ISS Staff:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ted Branoff, Ph.D., Associate Professor</td>
<td>Traci Temple, Ph.D.</td>
</tr>
<tr>
<td></td>
<td>Cathi Phillips</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course:</th>
<th>Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GC 120: Foundations of Graphics</td>
<td>107 hours spent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College:</th>
<th>Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Education</td>
<td>Second piloted course with automated assessment of SolidWorks assignments offered in fall 2009</td>
</tr>
</tbody>
</table>

**Engineering Statics (MAE 206); Engineering Dynamics (MAE 208)**

MAE 206 and MAE 208 are critical-path courses for the future of the students’ study in Mechanical Engineering, Aerospace Engineering, and Biomedical Engineering; they are two in a series of first engineering courses for many students, and a high level of understanding is required. Both courses are offered through Engineering Online for the BS in Engineering programs and the 2+2 Pre-Engineering Transfer Program at community colleges across North Carolina. These courses served over 1,000 students (on-campus and distance) during the FY 08/09 (see Table 9).
MAE 206: Engineering Statics. MAE 206 enrolled over 600 students in the FY 08/09. The course is made up of six class sections annually (4 fall semester and 2 spring semester) with an average of 25% of these students receiving D and F grades in the FY 07/08. DELTA LCR Pilot Grant funding was awarded to support the incorporation of instructional technologies to tailor course content to meet varying student preparation levels; improve or maintain student retention of material; increase student feedback; increase enrollment in lecture and online without the addition of instructional resources (instructors and teaching assistants); harness peer teaching (group work and social networking); reduce DFW rates if possible; introduce Engineering computing skills to students with limited programming experience; eliminate course drift (34 professors over 27 semesters, no common syllabus); and improve quality of distance education in the face of increasing distance education needs.

ISS staff provided instructional technology, design and development staff resources to the professor who created the online modules that incorporate instructional technologies to meet the above goals. The redesigned course now includes prerequisite reviews of trigonometry and calculus example problems; online quizzes for reading the textbook; video example problems for asynchronous viewing; computerized testing to give students immediate feedback on quizzes and exams; in-class quizzes using clickers for active learning and to provide students with instant feedback; and class notes available online for students to use for reviewing lecture material.

Approximately 475 students in 4 of the 6 sections in the FY 08/09 (3 fall semester and 1 spring semester) were taught using the redesigned, blended course. Quantitative and qualitative assessment of the pilot phase of the redesigned course is ongoing. Baseline data from the traditional lecture structure is being compared to the blended course to determine the following: The blended course including online learning material is equal to the traditional course; online exams can predict the future performance of students in higher-level classes; attendance in lectures improves with pedagogically effective uses of clickers; students would rather have feedback with clickers than no feedback; students like the video example problems (created with Livescribe); and students’ performances on the introductory problems correlate with performances on tests. Data from the Registrar’s office indicates that a reduction in DFW rates was reduced in the FY 08/09 with an average of 14.5% of students receiving Ds and Fs (down from 24.5% in spring 2007, 15.5% in fall 2007 and 22.83% in spring 2008); however, more data will be collected and evaluated to determine the impact LCR is having on student success in the course. Full implementation and additional quantitative and qualitative assessment of the redesigned course is scheduled for the fall 2009 semester.

MAE 208: Engineering Dynamics. MAE 208 enrolled over 400 students in the FY 08/09. The course is made up of 5 class sections annually (2 fall semester and 1 spring semester) with an average of 17% to 27.4% of these students receiving D and F grades. DELTA LCR Pilot Grant funding was awarded to support the redesign of the second course in the MAE series. The primary redesign goals were to improve student learning by focusing on mastery learning and improve retention of understanding of material for future courses. ISS staff provided instructional design support to help determine that Mediasite was the best technology for the professor to use to record 200, five- to seven-minute lectures of concepts and example problems. ISS support was also used to guide the initial planning and development of a script format for narration; the creation of a test bank of 450 multiple choice questions on problem sets for LMS
randomized delivery of questions for online testing; and information about accessibility requirements for online courses.

Table 9. MAE 206 & MAE 208 Project(s) Summary

<table>
<thead>
<tr>
<th>Faculty:</th>
<th>ISS Staff:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Anna Howard, Ph.D., Teaching Assistant Professor, MAE 206 Course Coordinator</td>
<td>• Traci Temple, Ph.D.</td>
</tr>
<tr>
<td>• Larry Silverberg, Ph.D., Professor, Associate Department Head, MAE 208 course coordinator</td>
<td>• Cleo Magnuson</td>
</tr>
<tr>
<td></td>
<td>• David Howard</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course:</th>
<th>Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• MAE 206: Engineering Statics</td>
<td>• 116 hours spent</td>
</tr>
<tr>
<td>• MAE 208: Engineering Mechanics</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College:</th>
<th>Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Engineering</td>
<td>• The MAE 206 redesigned course was taught as a pilot and full implementation of the blended course will be taught in AU/09</td>
</tr>
<tr>
<td></td>
<td>• MAE 208 redesign is in progress</td>
</tr>
</tbody>
</table>

**Precalculus: Algebra (MA 107) and Precalculus: Algebra and Trigonometry (MA 111)**

The NC State Registrar’s office identified MA 111 as a high needs course due to the number of students enrolled, high DFW rates and notable course repeats. MA 111 fulfills NC State’s general education requirement (GER) and prepares students for MA 141, *Calculus I*. The annual enrollment is 650 students from nine sections, with an average of 35% of these students receiving D and F grades. MA107 is the prerequisite for the biological science and business calculus sections. (It was included in the redesign because it shares the first eleven lectures with MA 111.) During the 2007-2008 academic year, MA107 consisted of seventeen course sections. The total enrollment was approximately 1,000 students. Ten sections were taught in the fall with an average class size of 90 students.

DELTA LCR Pilot Grant funding was awarded for the redesign of MA 107 and 111 (see Table 10). A team of mathematics faculty and DELTA staff collaborated on the redesign of these courses to achieve the following goals: reduce DWF rates; increase student retention; increase mastery of learning and successful knowledge transfer to MA 141 and higher-level courses; maintain faculty workload as enrollments increase and course structure changes (multiple course sections combined into one large, 250 student lecture); create peer-to-peer learning; reduce class meeting times; and spend no additional funds for instruction.

Web-based learning resources were created to engage students with the course content for varying learning styles: clickers for student engagement during lecture; Livescribe videos for presenting example problems; captioned and transcribed videotaped lectures demonstrating concepts and sample problems; low-stakes quizzes in Moodle for increasing students’ time-on-task and feedback; online homework that is automatically assessed and provides instant feedback; and synchronous study sessions using Elluminate.
The redesigned course will be piloted and initial qualitative and quantitative assessment data collected during the fall 2009 semester.

**Table 10. MA 107 & MA 111 Project(s) Summary**

<table>
<thead>
<tr>
<th>Faculty:</th>
<th>ISS Staff:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Brenda Burns-Williams, Ph.D., Lecturer, MA 111</td>
<td>• Traci Temple, Ph.D.</td>
</tr>
<tr>
<td>• Elizabeth Dempster, Lecturer, MA 107</td>
<td>• Cathi Phillips</td>
</tr>
<tr>
<td>• Lisa Fiedor</td>
<td></td>
</tr>
<tr>
<td>Course:</td>
<td>Resources:</td>
</tr>
<tr>
<td>• MA 111: Precalculus, Algebra and Trigonometry</td>
<td>• 155.5 hours spent</td>
</tr>
<tr>
<td>• MA 107: Precalculus, Algebra</td>
<td></td>
</tr>
<tr>
<td>College:</td>
<td>Status:</td>
</tr>
<tr>
<td>• College of Physical &amp; Mathematical Sciences</td>
<td>• Phase one of course redesign complete; pilot phase to begin fall 2009</td>
</tr>
</tbody>
</table>

**Additional LCR Project(s)**

DELTA ISS staff have also assisted faculty and staff with other large course redesign projects. These projects included ISS research and consultation specific to the project needs.

**Chemistry: A Molecular Science (CH 101)**

CH 101 is a course that served over 4,000 students during FY 08/09. The D/F rate for this course is historically high, ranging from 24% - 30% depending on the semester. A main objective for redesigning this project was to reduce the percentage of students who receive a D-grade or lower and to reduce the number of students repeating the course. A new pedagogical approach blending traditional classroom time with instructional technology will deepen students’ understanding of basic concepts through the availability of content suited to different learning styles, through links to applications in other fields, and through the enhanced visualization of nanoscopic processes.

DELTA ISS staff continued conversations with Dr. Greg Neyhart to discuss a future pilot redesign for CH 101. The chemistry faculty redesign team met biweekly during fall 2008 to discuss the redesign of the course. Initial talks were focused on acclimating three instructors who were new to CH 101. The team worked to agree on the course objectives and common final exam questions that would be used to measure the state of the program. They focused on ways to integrate into the course a placement exam that would direct students who are not prepared for CH 101 to lower level courses. The team indicated an interest in using clickers as a tool to utilize class time to help students actively solve problems during lecture. Course materials would be placed online to supplement what is taught in lecture.
Concepts of Financial Reporting (ACC 210)

DELTA ISS met with the Department of Accounting to discuss their need to increase enrollments, combine sections, and deliver ACC 210 in a large auditorium as a result of budget reductions. The goal was to accommodate a larger class without increasing faculty resources or altering the quality of learning. Total enrollment for FY 08/09 was 1,339 students (31 sections). The department anticipated offering approximately 8 sections during FY 08/09 with larger student enrollment in each. ISS staff reviewed ways to use technology to effectively deliver ACC 210 in a large auditorium format using clickers, expand the course Web presence and how develop a required fifty-minute problem lab for students to attend once a week (25 students per lab). The use of instructional technology (clickers and online materials) and access to TAs will increase active learning and student-to-instructor and student-to-content interaction.

Senior Design Project in Electrical Engineering and Computer Engineering I (ECE 482) & Senior Design Project in Electrical Engineering and Computer Engineering II (ECE 483)

ECE 482 and ECE 483 make up a two-course sequence where students learn the application of engineering, mathematics, basic sciences, finance, and business to the design and development of prototype engineering products and prototyping new ideas. ECE 482 requires a complete written report and an end-of-course presentation. Students taking this course implement their designed prototype in ECE 483. Based on their own new product ideas, or those of others, students form and lead entrepreneurship teams (eTeams) to prototype these ideas ECE 483. The students run eTeams as ‘virtual’ startup companies, simulating taking on the executive roles. Joining them are students from other grade levels and disciplines throughout the university that agree to participate as eTeam members. ISS met with Dr. Stephen Walsh to discuss implementing instructional technology to apply principles and strategies for large course redesign to grow the ECE course program, improve the quality of students’ education, increase enrollments, find better ways to manage student teams, and strategies for teachers to be viewed by students as facilitators in the course.

LCR Future Plans

DELTA ISS staff are continuing to collaborate with the Registrar’s Office, college and department administration and faculty to identify more undergraduate courses that can benefit from LCR as we learn from the piloted courses (previous and current) and use our results and experience to engage others in this process. The DELTA Large Course Redesign Pilot Grants program will provide some funding to grow LCR from five to approximately eight undergraduate courses. These courses will be identified as “high needs” as a result of high DFW rates, course repeats, and increased enrollments and/or reduced numbers of sections because of current budget constraints. In additional to monetary support, ISS will provide instructional design, instructional technology and instructional development support to the existing and future LCR projects. We will continue to assess if redesigning large lecture courses improves student learning, reduces the DWF rates and opens enrollments for “bottleneck” courses. ISS staff will collaborate with faculty to maintain quality instruction while facing the challenges of increasing enrollments and improving student performance without increasing instructional costs. ISS will collaborate with faculty in one or more of the following: 1) develop an LCR project plan; 2) provide LCR principles and methods instruction; 3) create timelines for project completion; and 4) establish a plan and methods for assessing the success of LCR for each course.
IDEA Grants Program

DELTA Innovation in Distributed Education Applications (IDEA) Grants are provided to promote innovation in the use of instructional technology in online distance teaching and learning, build expertise in this area, and enhance the technology-rich learning environment at North Carolina State University. The DELTA ISS staff is charged with administering and supporting the IDEA grants program, including the online submission and review system, the processes and procedures associated with delivering grant-related services to faculty, consultations with potential applicants, and internal project management. IDEA grant recipients receive a multitude of services in creating online courses, including instructional design consultations and a wide range of instructional design services, from analysis to evaluation, Web design and development, recruiting and marketing materials for a course, video production, graphic design and animation.

2008–09 Overview

In October 2008, fifteen grants were awarded out of the twenty-nine submitted for the 2008–09 IDEA Grant cycle. Details of many of these grant projects can be found on the course pages in the Course Production Program section of this report. The total awarded for the 2008–09 cycle was $120,000.

For the first time, DELTA used the Exploratory Grants to target technologies that have been identified as both areas for innovation and useful for Distance Education offerings. For the 2008–09 cycle, mobile technologies and Web 2.0 applications were targeted and two grants were awarded, one in each category. In addition, a new category, Research Grants, was created to foster research related to the effectiveness of Distance Education instructional innovations. One Research Grant was awarded (see Table 11).

Table 11. IDEA Grants Historical Award Summary

<table>
<thead>
<tr>
<th>Year</th>
<th># accepted</th>
<th>% accepted</th>
<th>Funds awarded</th>
<th>Staff time awarded / spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>00–01</td>
<td>32 of 68</td>
<td>47%</td>
<td>$492,161</td>
<td>0 hrs (2) / 0 hrs</td>
</tr>
<tr>
<td>01–02</td>
<td>39 of 49</td>
<td>80%</td>
<td>$1,012,085</td>
<td>0 hrs (2) / 1,210 hrs</td>
</tr>
<tr>
<td>02–03</td>
<td>31 of 77</td>
<td>40%</td>
<td>$220,790</td>
<td>1,183 hrs / 852 hrs</td>
</tr>
<tr>
<td>03–04</td>
<td>16 of 55</td>
<td>29%</td>
<td>$118,753</td>
<td>1,820 hrs / 2,178 hrs</td>
</tr>
<tr>
<td>04–05</td>
<td>23 of 36</td>
<td>64%</td>
<td>$191,569</td>
<td>1,851 hrs / 2,850 hrs</td>
</tr>
<tr>
<td>05–06</td>
<td>11 of 18</td>
<td>61%</td>
<td>$104,955</td>
<td>2,535 hrs / 5,734 hrs</td>
</tr>
<tr>
<td>06–07</td>
<td>13 of 33</td>
<td>39%</td>
<td>$104,955</td>
<td>0 hrs (3) / 5,544 hrs</td>
</tr>
<tr>
<td>07–08</td>
<td>13 of 22</td>
<td>59%</td>
<td>$115,141</td>
<td>0 hrs (3) / 2,870 hrs (4)</td>
</tr>
<tr>
<td>08–09</td>
<td>15 of 29</td>
<td>52%</td>
<td>$120,000</td>
<td>0 hrs (3) / 2,920 hrs (5)</td>
</tr>
<tr>
<td>Totals</td>
<td>178 of 358</td>
<td>50%</td>
<td>$2,479,865</td>
<td>7,389 hrs / 24,158 hrs</td>
</tr>
</tbody>
</table>

(1) The figures in this table do not include the 2nd and 3rd year of funding for multi-year grants. Multi-year grants were awarded in the first two cycles of the IDEA Grants program.

(2) In the first year of the IDEA Grant program, only funds were awarded. In the second year, DELTA staff started working on certain projects and after talking with recipients and hearing the need for skilled assistance, staff time was made a component of the grant program starting in the 2002–03 cycle. Some assistance was then rendered to recipients of 2001-02 grants.
In order to increase the flexibility of DELTA staff and to better respond to the needs of the projects, DELTA ceased granting a specific number of hours for each grant beginning with the 2006-07 cycle. Instead, DELTA staff work with faculty to determine the needs for the project and then staff time is used as needed to meet those needs. Staff time is still in addition to funds granted and does not need to be paid for out of the monetary award.

One of the thirteen grant projects in the 2007-08 cycle are still in progress as of the end of the FY 08/09.

Ten of the fifteen grant projects in the 2008-09 cycle are still in progress as of the end of the FY 08/09.

2009-10 Planning

We restructured the IDEA Grants review and notification process for the 2009-10 cycle so that the timeline would line up better with the fiscal year. The grant categories were not modified. 53 proposals were submitted by the May 21st deadline, which is the largest number since the 03-04 cycle and more grants than were submitted in the last two years combined.

Course Production Program

DELTA provides assistance to NCSU faculty and staff in the form of funds and personnel to support planning, design and development of online and distance education courses, programs and materials. DELTA ISS staff work on course production projects as part of IDEA Grants, in strategic and directed support of DE Programs and other DELTA initiatives, and as a result of ad hoc Online Course Production requests.

![Figure 25. Research, Marketing and Course Production Hours, combined view, for DELTA ISS staff](image-url)
During FY 08/09, the ISS staff, with the support of others within DELTA, provided services and support to faculty involved in 21 major course production projects. These projects were generated by the IDEA Grants program, DE programs that requested production support, Large Course Redesign efforts that required production support and other academic course production requests. Figure 25 provides an overview of FY 08/09 ISS course production, marketing and research hours over the last six years. The decreased number of course production hours is reflective of several factors:

1. The decreased ability to hire and retain part-time staff due to University spending restrictions. Part-time hours in the Production team decreased from 5,360 (3,345 in course production) to 4,750 (1,660 in course production). This trend is likely to continue into the next fiscal year.
2. The increased demand for creative and multimedia services to support other internal development and marketing initiatives. This diverts time from course production projects.

ISS staff and other DELTA personnel spent approximately 5,500 hours working on course production projects in FY 08/09. Of the 21 major course production projects that were active during the year, ten are completed in terms of ISS production. In the course of these projects, ISS staff members have worked with faculty to create online materials for sixteen new distance education courses, three existing distance education courses, and two face-to-face courses. These projects are listed individually in Table 12 and following that are descriptions of some of our major course production projects for FY 08/09. Additionally, ISS staff provided over 4,100 hours to marketing production and 2,250 hours to research projects. Figures 26 and 17 illustrate creative and multimedia time toward these projects.
### Table 12. Course Production Hours, FY 08/09

#### Major Course Production Projects (>10 hours this FY)

<table>
<thead>
<tr>
<th>IDEA Grants (continued)</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS 206 (complete)</td>
<td>537</td>
</tr>
<tr>
<td>ADN 219</td>
<td>285</td>
</tr>
<tr>
<td>CH 221 (complete)</td>
<td>119</td>
</tr>
<tr>
<td>D 492 (complete)</td>
<td>203</td>
</tr>
<tr>
<td>FS 201 (complete)</td>
<td>555</td>
</tr>
<tr>
<td>PS 498 (complete)</td>
<td>84</td>
</tr>
<tr>
<td><strong>6 projects</strong></td>
<td><strong>1,783</strong></td>
</tr>
</tbody>
</table>

#### IDEA Grants (new)

<table>
<thead>
<tr>
<th>IDEA Grants (new)</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN 411</td>
<td>240</td>
</tr>
<tr>
<td>ANS 105 (complete)</td>
<td>680</td>
</tr>
<tr>
<td>ANT 253</td>
<td>366</td>
</tr>
<tr>
<td>BIO 488</td>
<td>69</td>
</tr>
<tr>
<td>CH 315</td>
<td>81</td>
</tr>
<tr>
<td>CS 224</td>
<td>64</td>
</tr>
<tr>
<td>CS 3xx</td>
<td>11</td>
</tr>
<tr>
<td>ECI 521</td>
<td>11</td>
</tr>
<tr>
<td>ECI 570 (complete)</td>
<td>502</td>
</tr>
<tr>
<td>HI 208</td>
<td>384</td>
</tr>
<tr>
<td>PHI 325</td>
<td>425</td>
</tr>
<tr>
<td><strong>11 projects</strong></td>
<td><strong>2,833</strong></td>
</tr>
</tbody>
</table>

#### DE Program Support (including Learn and Earn Online)

<table>
<thead>
<tr>
<th>DE Program Support (including Learn and Earn Online)</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 105</td>
<td>217</td>
</tr>
<tr>
<td>ST 101 (complete)</td>
<td>24</td>
</tr>
<tr>
<td><strong>2 projects</strong></td>
<td><strong>241</strong></td>
</tr>
</tbody>
</table>

#### Large Course Redesign

<table>
<thead>
<tr>
<th>Large Course Redesign</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAE 206 / 208 (complete)</td>
<td>125</td>
</tr>
<tr>
<td><strong>1 project</strong></td>
<td><strong>125</strong></td>
</tr>
</tbody>
</table>

#### Online Course Production

<table>
<thead>
<tr>
<th>Online Course Production</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS 785 (complete)</td>
<td>41</td>
</tr>
<tr>
<td>Other Course Production (1)</td>
<td>477</td>
</tr>
<tr>
<td><strong>2 projects</strong></td>
<td><strong>518</strong></td>
</tr>
</tbody>
</table>

#### Total Course Production Hours

| Total Course Production Hours | 5,500 |

(1) Other Course Production projects include a variety of projects that incur fewer than five hours in the fiscal year and development of instructional resources like the DELTA Flashcard Tool and the Moodle Student Orientation.
Figure 26. Percentage, by course, of production hour time dedicated by Multimedia Staff, FY 08/09

Figure 27. Percentage, by categories, of time dedicated by Multimedia Staff, FY 08/09
ANS 105: Introduction to Companion Animals

Project Summary

| Instructor: Kimberly Ange | DELTA Staff: Alyson Tuck, Lee Ann Gillen, Cleo Magnuson, Ruth Smith, Cathi Phillips, David Howard, Nick Rodenberg, Larry Evans, Amanda Robertson, |
| Course: ANS 105 New DE Course Type III Undergraduate | Resources: $8,000 and 680 hours total (all in FY 08/09) |
| College: CALS | Status: Complete |

ISS staff worked with Dr. Ange to create a distance education version of her face-to-face course, ANS 105, a very popular course for non-majors. The course consisted of Web pages created in Wimba Create and based on her lecture recordings and PowerPoint slides. Every module had companion self-check quizzes created in Moodle to test the student’s comprehension of the module’s material. There were also quizzes given in Moodle, and proctored exams. Guest lecturers were captured using the MediaSite portable studio, and were the beginning of a library of guest recordings that can be interchanged through different semesters.

Deliverables

- **Web Pages** - designed a Web page layout and .css for her Web pages using Course Genie, now Wimba Create. The ISS team created half of the Web pages, and Kimberly was instructed on how to do the pages herself, and given a job aid, to assist her in creation of the rest of her Web content. Written content was generated by listening to recorded lectures of her class and coordinating them with images, some from Kimberly’s power point slides, and some from new, non-copyrighted images that were found on the Web. Pages can be viewed at: L:\Projects\Courses\ANS105-Ange\Web Content

- **Moodle** – used Moodle for class LMS. Assisted in layout and design of content. Content is presented as Wimba Create html modules. Access available through Alyson or Lee Ann.

- **Public Site and Welcome Video** – recorded a Welcome Video at Lake Johnson and constructed a Splash site for marketing purposes. http://courses.ncsu.edu/ans105/common/

- **Design Look** – developed a Moodle college banner, MediaSite graphics, and PowerPoint template
CH 315: Quantitative Analysis

Project Summary

<table>
<thead>
<tr>
<th>Instructor: Ghada Rabah</th>
<th>DELTA Staff: Lee Ann Gillen, Shaade Oliveros, Darren Ley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course: CH 315</td>
<td>Resources: $8,000 and 81 hours in FY 08/09</td>
</tr>
<tr>
<td>New DE Course</td>
<td>(Type III Undergraduate)</td>
</tr>
<tr>
<td>College: PAMS</td>
<td>Status: In progress</td>
</tr>
</tbody>
</table>

DELTA staff worked with Dr. Rabah to create a distance education version of CH 315, but without a DE laboratory component. Students still need to attend an on-campus lab section as part of this DE version of the course. The course consists of a series of Web pages with embedded LiveScribe videos illustrating how to solve solution calculations, understand experimental error, and perform basic statistical analysis of the results obtained from lab experiments. Ghada also used timed quizzes in Moodle to briefly check comprehension and collect participation grades to reflect the points earned by students in the f2f class who were using clickers for a similar purpose. The DE students as a group also had access to Moodle for discussion of solutions to problems. All the students completed homework using WebAssign. Materials in Moodle that were available to all students included basic laboratory information and lab briefings recorded using LecShare Pro. Lab experiment data was entered using WebAssign.

Deliverables

- **Web Pages** - designed a Web page layout and .css for her Web pages and then instructed her on how to do the pages herself, giving her a job aid to assist her with the different components she would need for her pages.
- **LiveScribe Videos** - instructed her on recording LiveScribe videos and embedding them.
- **Narrated Presentations** – used LecShare Pro to record some of her lectures.
- **Moodle** – used Moodle for class LMS. Assisted in layout and design of content, including additional side block to house auxiliary information for course participants, such as Laboratory Assignments and Lab Briefings. Also created a forum for the DE students as a group to discuss calculations and other content questions.
- **Public Site and Welcome Video** – recorded a Welcome Video (in collaboration with Video Communication Services) and constructed a Splash Page site for marketing purposes.
- **Design Look** – developed a Moodle banner, a look and feel for PowerPoint slides, and a flyer for the course.
HI 208: Medieval Origins of the Modern World

Project Summary

<table>
<thead>
<tr>
<th>Instructor: Julie Mell</th>
<th>DELTA Staff: Ruth Smith, Leah Lawrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course: HI 208</td>
<td>Resources: $8,000 and 384 hours in FY 08/09</td>
</tr>
<tr>
<td>New DE Course</td>
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<td>Type I Undergraduate</td>
<td></td>
</tr>
<tr>
<td>College: CHASS</td>
<td>Status: In progress</td>
</tr>
</tbody>
</table>

ISS staff worked with Julie Mell to create a Distance Education version of HI 208, Medieval Origins of the Modern World. Dr Mell’s primary goals were to create a quality, interactive course that:

1. Introduces students both to the discipline of history and to the main currents of medieval history;
2. Creates an environment that maximizes student interaction and collaboration;
3. Meets multiple learning styles; and
4. Allows students to work ahead, when desired.

Deliverables

- **Moodle Course Site** - The Moodle site is structured around a course schedule that is embedded as an HTML table and links out to each corresponding module in Wolfware.
- **Course Web Modules in Wolfware** - 22 Web page modules were created for the course.
- **Course Wiki** - A private course wiki was set up in Wetpaint for students to post their interview assignments and their group projects. Students also worked in private wikis each week to collaborate on their final group project – a narrative of medieval history.
- **Narrated Presentations** – 14 narrated presentations with interactive quizzes and annotations were created using Articulate.
- **E-Reserves** – Web pages link out to readings, films, and audio clips placed on e-reserves.
- **Public Splash Site and Welcome Video** - [http://courses.ncsu.edu/hi208/common/mell/](http://courses.ncsu.edu/hi208/common/mell/)

Results

- 73 students in 2 DE sections in Fall 2009
- Dr. Mell was very pleased with the group wiki activity. She emailed us, “I’m happy with the wiki activity. Group 4 put up some good resources for our unit on knights.” and also gave positive feedback to her students, “The time-line interviews of your partners look great. Groups are clearly getting to know each other and working well in this online space. Good job.”
ADN 411: Digital Painting

Project Summary

<table>
<thead>
<tr>
<th>Instructor: McArthur Freeman</th>
<th>DELTA Staff: Ruth Smith, Amanda Robertson</th>
</tr>
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<tbody>
<tr>
<td>Course: ADN 411</td>
<td>Resources: $8,000 and 240 hours in FY 08/09</td>
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<tr>
<td>New DE Course</td>
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<td>Type III Undergraduate</td>
<td></td>
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<tr>
<td>College: Design</td>
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</tbody>
</table>

ISS staff worked with McArthur Freeman to create a hybrid offering of ADN 411, a new course on digital painting that will ultimately be offered as a distance education course in spring 2010. McArthur’s primary goals were:

1. To create content and demonstrations online that were easy to update and build upon, and
2. To facilitate formal and informal group critique online in an asynchronous environment.

This evolved into the creation of two main course sites, one in WordPress where students can go to access the course content (weekly lectures and assignments, projects, embedded video demonstrations, announcements, etc) and one in Ning where students can go to post their work, get to know one another, talk about their design process and receive critiques from their classmates.

Deliverables

- **Course Web site in WordPress**: https://wp.delta.ncsu.edu/digitalpainting/ (publicly accessible).
  This site includes course information, course content, a glossary of common design terms, a news feed, featured student work, and announcements.
- **Online Critique Space in Ning**: This site includes individual studio space for each student where they can share information about themselves, upload photos and videos of their projects and assignments, and post blog posts about their process. Other students can leave threaded comments on their profile page or on individual items that they have posted. The Ning site also has a course studio page that aggregates content from each student’s individual studio space and particular projects or assignments can be featured by the instructor to highlight best practices.

Results

- Because of the popularity of this course and the breadth of content covered in it, the College of Design has decided to expand this offering into two courses: Digital Painting I and II. Digital Painting II is expected to go live as a hybrid course in spring 2010 and Digital Painting I will go completely DE in fall 2010.
FS 201: Food Science and the Consumer

Project Summary

<table>
<thead>
<tr>
<th>Instructor: Keith Harris</th>
<th>DELTA Staff: Lee Ann Gillen, A. J. Klingenmeier, Amanda Robertson, Larry Evans, Darren Ley, Robert Faries, Robert Holloman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course: FS 201</td>
<td>Resources: 125 hours in FY 08/09</td>
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<td>New DE Course</td>
<td>$8,000 and 680 hours total</td>
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<tr>
<td>College: CALS</td>
<td>Status: Complete</td>
</tr>
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</table>

DELTA staff worked with Keith Harris to create in Moodle, a Distance Education version of FS 201, a very popular introductory course in food science for the non-major. Dr. Harris’s goal was to capture the excitement and craziness of his classroom in his presentation of the course material. To accomplish those ends, 14 video skits were recorded using Dr. Harris as the primary actor. One of these skits was turned into an animated video, using the captured voice of Dr. Harris for all the roles. All of the videos had additional graphic materials created and added in post-editing. Additional materials created included 12 learning units, which contained narrated presentations, Web pages, podcasts, outside links, 5 MediaSite recordings of guest lecturers, discussion forums, quizzes, exams, and the video skits. There was also a public Web page and banner for the Moodle course, and a welcome video created.

Deliverables

- Narrated Presentations – created with LecShare Pro
- Web pages / Course Web site – designed css and Web page layout for presentation of content.
- Guest Lectures in MediaSite – 5 guest lecturers recorded and edited.
- Live action videos – 14 videos scripted, shot, and edited, which demonstrated various concepts in food science.
- Animation – 1 animation, designed and rendered
- Public site and Welcome Video - http://www.ncsu.edu/foodscience/fs201/index.html
ISS staff worked with Dr. Daubert to create a distance education version of his graduate face-to-face class. This class has wide-reaching potential to enroll many students from the food industry, as well as students majoring in Food Science / Engineering at NC State. It is being co-taught by Dr. Jim Steffe from Michigan State University. The course used narrated presentations, journal reflections, group problem solving and discussions, self-check quizzes, as well as actual quizzes and tests, flash cards for additional review, and office hours in Elluminate. The materials developed for the DE course were also used successfully in the face-to-face course, and enhanced student learning above their past performance.

**Deliverables**

- **Vista site** – used Vista for class LMS. Assisted in layout and design of content, including several features of Vista discussion boards, such as (1) journal, for private reflection on material, to enhance students’ metacognition of their own learning, (2) problem solving real world situations using shared knowledge and collaborative thinking, and (3) general discussion of other aspects of this topic in the food industry.
- **Public Site and Welcome Video** - [http://courses.ncsu.edu/fs591/common/](http://courses.ncsu.edu/fs591/common/)
- **Web Pages** - designed a Web page layout and .css for Dr. Daubert’s Web pages and then instructed him on how to do the pages himself, giving him job aids to assist with the different components he would need for his pages, i.e. inserting images, tables, hyperlinks, etc.
- **Vocabulary** – utilized DELTA’s new flash card tool for producing study materials for a large body of technical vocabulary needed for the course.
- **Narrated Presentations** – lecture material was delivered by short narrated presentations.

**Results**

“I think [FS 591] being VERY well received by the 19 students involved. Our hard work over the past 2-years has apparently paid off. It’s a beautiful, high-end course that will continue to improve. Thanks to both of you for helping make this course a reality. Hopefully, the rest of the semester will progress as smoothly as the first 2 weeks.” –email from Chris Daubert to Lee Ann Gillen and Greg Kraus
CS 224: Seeds, Science and Society

Project Summary

<table>
<thead>
<tr>
<th>Instructor</th>
<th>DELTA Staff:</th>
<th>Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan Spears</td>
<td>Lee Ann Gillen, Scott Dubois, Mike Cuales</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Course</th>
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<td>Seeds, Science &amp; Society</td>
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<tr>
<td>Type III Undergraduate</td>
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ISS staff worked with Dr. Spears to create a distance education version of her face-to-face course, CS 224. Dr. Spears had created another DE crop science course with us last year using all narrated presentations. Her goal for this year was to use less of the narrated presentation format, and more of content displayed in Web pages, with hyperlinks to various outside resources. Students in both the face-to-face class and the DE class co-conducted two surveys using Google Docs, and had class discussions on the course materials and the survey results. She also created several groups and groupings, and utilized the wikis and discussion boards in Moodle for collaboration of materials and ideas within those groups. There has been cross collaboration in this course among both the face-to-face and the online students.

Deliverables

- **Web Pages** - designed a Web page layout and .css for her Web pages and instructions and job aids for creating and maintaining course materials.
- **Narrated Presentations** – used MediaSite to record some lectures using Crop Science studio.
- **Moodle** – layout and design of content, including additional side block to house auxiliary information for course participants, as well as wikis and discussion boards for groups.
- **Google Docs** – two surveys using the Forms feature in Google Docs that allowed the students to develop their own questions, conduct surveys, and write a summary report.
- **Public Site and Welcome Video** – recorded a Welcome Video in the University’s Phytotron and constructed a Splash Site for marketing purposes.
- **Design Look** – developed a Moodle banner, a PowerPoint template, and a flyer for the course.
- **Wiki in Moodle** – students utilized a scaffold wiki (1) to develop interview questions for a sociologist, scientist and economist on designated issues; (2) for information sharing on summary of interviews and (3) for the “Adopt-a-Country” group project collaborations.
BIO 488: Neurobiology

Project Summary

<table>
<thead>
<tr>
<th>Instructor</th>
<th>DELTA Staff</th>
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</thead>
<tbody>
<tr>
<td>Jane Lubischer</td>
<td>Cleo Magnuson, Amanda Robertson,</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Resources</th>
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<td>BIO 488</td>
<td>$8,000 and 69 hours spent total</td>
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<table>
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<th>Status</th>
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</table>

DELTA staff have begun working with Jane Lubischer to create a Distance Education version of BIO 488, a neurobiology course. This course will be delivered in Moodle and will include Camtasia-recorded lectures created by the instructor. The course will be divided into ten unit topics grouped into four units. Plans for the course include at least one group discussion activity. There will be 3 midterms and a final exam proctored through DELTA. A learning module about aphasia was created by the instructor to provide more information about this particular topic.

Deliverables

- **Case Study Module** – about aphasia created in Articulate Engage with audio voiceovers.
- **Moodle** course site:
  - Getting Started content (using the Book feature in Moodle): Welcome, Syllabus (general info), Learning Outcomes, Discussion Board
  - Course Tools and Proctors (using the Book feature in Moodle): Course Organization, Proctoring
  - Four separate group discussion boards and a general course discussion board
- **Tutorials** - how to convert an .mp4 to a .swf and how to wrap a Flash video
- **Sample welcome letters** that can be customized for instructor’s course
ECI 570: Learning Disabilities

Project Summary

<table>
<thead>
<tr>
<th>Instructor: Susan Osborne</th>
<th>DELTA Staff: Cleo Magnuson, AJ Klingenmeier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course: Learning Disabilities</td>
<td>Resources: $8,000 and 502 hours total (all in FY 08/09)</td>
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<td>New DE Course Type II Graduate</td>
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</table>

DELTA collaborated with Susan Osborne on the development of a Distance Education offering of her existing face-to-face graduate course, ECI 570. The Vista course site incorporated learning modules to deliver content and a variety of active learning exercises. Susan had previously used Elluminate Live! for a Book Review exercise with her F2F class and decided that she would continue to incorporate Elluminate sessions within her ECI 570 DE course.

The format for ECI 570 was also used for a companion undergraduate course, ECI 416. The two courses shared a Course Organization page, the Getting Started module and various Web links. ECI 416 also includes podcasts created with Garage Band.

Deliverables

- Learning Modules - Six modules representing each of the weeks during the summer session. These included .html pages using Dreamweaver.
- Mediasite videos - Several Mediasite videos.
- Getting Started Module - This included a multi-part introduction to the course goals and organization created with Articulate Engage and a self quiz
- Glossary – A glossary of terms was created in Articulate Engage.
- Videos and Articles – A library of articles and videos made available through the library e-reserves system.
- Group Wiki Assignment – An activity where students worked in groups to create topic focused wiki pages (ADHD, Tourette’s Syndrome and others) for the Related Disorders assignment.
- Visual Design Package - A banner, PowerPoint template, Mediasite banner, and Splash site including a welcome video.

Results

- “So far so good. I’ve had a couple of minor glitches but I’ve managed to figure out what I needed to do and I’ve been really pleasantly surprised at the level of engagement and the quality of discussions. I know this has been supported by the research and by you but it is so nice to see it playing out.” – Susan Osborne to Cleo Magnuson
PHI/STS 325: Bio-Medical Ethics

Project Summary

<table>
<thead>
<tr>
<th>Instructor:</th>
<th>DELTA Staff: Cleo Magnuson, Shaade Oliveros, Ben Huckaby, Laura Stephenson, Larry Evans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course:</td>
<td>PHI/STS 325</td>
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<tr>
<td></td>
<td>New DE Course</td>
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<td></td>
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<tr>
<td>Resources:</td>
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<td>College:</td>
<td>CHASS</td>
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<tr>
<td>Status:</td>
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</tbody>
</table>

DELTA staff worked with Karey Harwood to create a DE version of PHI/STS 325, a bio-medical ethics course. This course is discussion-heavy and the discussions rely on teaching the students enough about medicine that they can understand the issues being debated.

Deliverables

1. Learning Modules - PHI 325 folder contained an organizational system (Weeks 1-16 and images folder), Dreamweaver .html pages with .css and an organizational structure.
2. Topic Presentations - Some of the modules contain additional content presented as .pdf and videos created by the instructor using Media Site. The videos were created to address specific pieces of content and varied in length from 5 to 7 minutes.
3. Guest Lecture - Capture of a guest lecturer speaking in Karey's spring 2009 PHI 325 f2f course.
4. Round Table Discussion Instructions - Using Articulate Engage.
7. Quizzes and Exams
8. Peer- and Self-Review Form for Collaborative Group Work - Likert Scale form based on peer assessment rubric. This form is attached to a spreadsheet which can be downloaded in Excel and then sorted.
9. Visual Design - Course banner, splash site, .ppt template
10. E-mail Civility Document
DELTA staff worked with Sean Vance to create an experimental course, D492 Universal Design, which he taught during spring ’09 as a face-to-face course with a Web presence. This course was also part of an NEA grant. In June ’09, Sean and a Design student met with ISS ID staff to discuss teaching his course fully online and how to scale the course to 75 to 100 students for spring 2010.

**Deliverables**

- Moodle course site - This course was created in Moodle and the Moodle Web page tool was used. Sean provided a binder and the 6 modules were built after meetings with the instructor and by using the brief introductions in the binder. In addition, a master document was created and stored on Lee to archive the Web pages and assignments etc. created for this course. This master document also included print screens for the 6 Modules (28 class sessions). Sean then needed to add additional pieces of content.

- Student Orientation to Moodle added to course

- Digital Storytelling Rubric (later modified by the instructor)

- Worked with Kim Duckett in the NCSU Library to facilitate addition of e-reserve articles that the instructor needed.
PS 498V: Vulnerable Populations & Public Policy

Project Summary

<table>
<thead>
<tr>
<th>Instructor: Joe Simons-Rudolph</th>
<th>DELTA Staff: Alyson Tuck, Leah Lawrence, Amanda Robertson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course: PS 498V</td>
<td>Resources: $8,000 and 329 hours Total</td>
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<td>New DE Course</td>
<td>84 hours in FY 08/09</td>
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<tr>
<td>Type I Undergraduate</td>
<td>Status: Complete</td>
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Dr. Simons-Rudolph worked with DELTA ISS staff to create a new distance education two-course sequence on vulnerable populations and the public policies that affect them. The first course was based on readings and discussions and had the students using a game, Democracy, to better understand policies and research organizations that affect public policy for vulnerable populations. The second course will be an internship in one of these organizations and students will contribute their experiences to a database of organizations and internships that will help inform later students. This course was delivered in Moodle as part of the Moodle pilot.

Deliverables

- Moodle course organized by week structure.
- Public Site and Welcome Video - http://courses.ncsu.edu/ww201/common/media/04/ps498v/index.html.

Results

This course has now been offered three semesters. Three DE students were enrolled in this course in fall 2008, 10 DE students were enrolled in spring 2009, and 2 students were enrolled in fall 2009.
ANT 253: Unearthing the Past: Introduction to World Archaeology

Project Summary

<table>
<thead>
<tr>
<th>Instructor: Scott Fitzpatrick</th>
<th>DELTA Staff: Cathi Phillips, Ben Huckaby</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course: ANT 253</td>
<td>Resources: $8,000 and 366 hours in FY 08/09</td>
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<td>New DE Course</td>
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<td></td>
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<tr>
<td>College: CHASS</td>
<td>Status: In progress</td>
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</table>

ISS staff worked with Dr. Fitzpatrick to create a DE version of ANT 253. This would be his first foray into developing and teaching a fully online course. The ultimate goal of this course is to fuel student interest in archaeology by helping undergraduates discover the techniques and theories that archaeologists use for understanding the past. To meet this goal, we incorporated an inquiry-guided approach that requires students to ask questions, investigate solutions, create new knowledge as they gather information, discuss their discoveries and experiences, and reflect on how their new-found knowledge can deepen appreciation for how societies developed through time. We developed ANT 253 (601) as a Moodle course designed around topic-based units. Key deliverables included narrated presentations and an online learning environment that would encourage students to engage in conversations around course content. Dr. Fitzpatrick created PowerPoint slide shows with narrations and animations, incorporating new templates and including transcripts. We also published the narrations as audio-only files. Each Articulate presentation was uploaded to Moodle as a SCORM learning object to allow the faculty to track each student’s viewing of the presentation. Discussion forums with prompts based on these presentations provide the online community space for students to discuss responses and exchange ideas. Other course activities include a Web-based interactive learning module as well as a full set of learning modules, Revealing Archaeology.

Deliverables

- **Course Web site**: In Moodle, including the narrated presentations and discussion forums.
- **Flashcards**: Built using the DELTA Flashcard tool, these study objects allowed students to review vocabulary and included audio pronunciations of the terms.

Results

- 20 students are already enrolled for the fall 2009 DE section.
- The work done to create narrated presentations for the DE version of ANT 253 also provided a viable solution for an on-campus student enrolled in the face-to-face section of ANT 253 and...
registered with Disability Services. The Articulate lectures with transcripts served as taped lectures for this student.

**Development of Instructional Resources**

DELTA creates tools and resources that are useful to instructors across campus, often as an outgrowth of a course production project. Projects in this category this year are the DELTA Flashcard Tool, Moodle Student Orientation (described in the Moodle section of this report), the Flash Media Player, and College Course Templates. Time spent on these projects are captured in the “Other” Course Production category as they directly benefit multiple courses.

**DELTA Flashcard Tool:** DELTA ISS staff spent around 183 hours in the development of an online flash card study tool developed for the University to support multiple forms of media and to encourage critical thinking through multiple learning options. In spring 2009, we conducted a usability study for the flashcards to guide future development. Details of this study are in the Research section.

**Moodle Student Orientation:** DELTA ISS staff created a set of tutorials to help students get oriented to Moodle. The tutorial was initially created for use in an IDEA grant, FS 201, and has now been incorporated into several other courses (ANS 105, D 492 and PHI 325). We surveyed students to gather suggestions for improvements and additions to the orientation materials, made changes, and in the future these materials will be updated and incorporated more widely into other courses.

**Flash Media Player:** Collaborating across units, DELTA developed a multipurpose Flash media player that can be used by any faculty member to distribute video content. Key features are accessibility, customization, scalability and flexible deployment (does not require a streaming server, supports many types of media, customizable interface). 293 development hours were documented for this player.

**College Course Templates:** Advanced our efforts in course production to broaden the reusability of our visual solutions through development of college-level templates for PowerPoint, Web sites, Mediasite, course fliers, and Moodle. This initiative, which is ongoing, was developed in response to the needs for integrated marketing and course information Web sites, and the desire to create materials that can be shared among courses in a college, rather than simply for one course. This project will help establish a base set of resources that any faculty or department can use and will free up professional staff time to focus on high-level multimedia production projects. 30 development hours were documented in beginning this initiative.

**Partnerships & Internships**

**College of Design & Distance Education Partnership:** Explored a variety of online social media tools (including WordPress, Ning, YouTube, VoiceThread, and SecondLife, among others) to develop the first studio-based courses offered online in the College of Design (ADN 219, ADN 411 and AND 418). In addition, we worked closely with the Department of Art + Design to help supervise and mentor an intern and direct a graduate student on researching 3D animation and serious games for education.
**DELTA Web Communications**

Instructional Support Services provides leadership, writing and content management for the DELTA Web sites and the new DELTA blog, the DELTAWire. DELTAWire is an important piece of the overall DELTA communications strategy as it provides a less-formal, blog-like conduit for all kinds of information from DELTA to the rest of campus.

**DELTA Web Site**

The DELTAWeb Management Team revised the DELTAWeb Team Structure document. This included updating team members, changing the frequency of team meetings, modifying the list of Web sites the team will manage, and removing the Liaisons Group. This team also made workflow changes as staff changed, improved the systems for change request and announcement request, and planned for site changes related to the DE site and the DELTAWire.

**DELTAWire**

Responding to the need for a tool that increases DELTA’s visibility, members of the ISS Production team created the DELTAWire (deltawire.delta.ncsu.edu). The DELTAWire is a WordPress site that serves as tool for DELTA to communicate with the NC State community and anyone on the Web. DELTA staff researched available tools and selected WordPress for its ease of use, rich feature set, adaptability, and potential for use in courses.

In FY 08/09, the foundation for the DELTAWire was established. A concept was developed with necessary requirements, a theme was selected, and initial content was entered. The DELTA Senior Management Team gave approval to move forward with the project and a development timeline was sketched out for a July release to the DELTA staff. This effort involved work and collaboration among several DELTA ISS teams, including 90+ hours of effort in FY 08/09 from the Multimedia Team.

**Marketing Initiatives**

Marketing efforts within DELTA cover a wide range of projects and clients, both internal and external to the organization (see Figure 28). The DELTA Creative & Multimedia Team provides brand management, design and production support, marketing and advertising for all DELTA sub-units including Distance Education, as well as support for individual NCSU courses and programs. Our in-house team is responsible for maintaining NCSU brand consistency as well as building brand recognition for Distance Education and other departments or units across the university for student recruitment. Within DELTA, the team provides general design and production assistance for events, training and partnership development efforts in support of the many services that directly benefit our NCSU faculty.
DELTA Internal Marketing Initiatives:

- **DELTA Brand Management.** In support of Marketing initiatives, DELTA ISS staff provided ongoing graphic design and visual communications support for various units within DELTA in support of courses, recruiting, campus events, marketing campaigns and digital media advertising. Over 1,690 hours were recorded in support of these efforts.

- **DELTA Space Design.** In support of DELTA’s main office move from Venture III to Venture II in October 2008, DELTA ISS staff provided visualization, design, branding and signage for the new DELTA offices in Venture II. This was a significant event that provided an opportunity to brand our environment in a way that would motivate and retain staff, celebrate faculty and student stories and further establish DELTA as a widely accessible support service at NCSU. In partnership with NCSU College of Design’s Industrial Design Department, we employed various student staff to assist in the design and development of signage for DE Testing Service and provided various levels of design support during and after our relocation to Venture II. Over 580 hours were recorded in support of these efforts.

- **DELTA Web Development.** A major project that required close collaboration across DELTA was the large-scale redesign of the Distance Education Web site to assist with student recruitment and marketing initiatives. This initiative provides a foundation for building future campaigns targeted at career changers. The site will allow for advanced analytics and data tracking, rich-
media advertising, and serve as a landing page for social media marketing efforts. The DELTA ISS team also participated in ongoing maintenance of the DELTA Web site which promotes resources and services to NCSU faculty. Over 820 hours were recorded in support of these efforts.

- **DELTAwire.** Assisted with development of a Web 2.0 presence for sharing news and information, perspectives, and expertise with the NCSU community. This effort was aided by our ongoing research of WordPress and similar CMSs. Over 90 hours were recorded in support of these efforts.

- **DELTA’s DE Brochure.** Provided creative direction for an outsourced project with a local vendor, Cross + Associates, to redesign the DE Program Brochure, which is used for student recruiting. Over 20 hours were recorded in support of these efforts.

- **DELTA PP315 Course Marketing.** Provided design support for the development of student recruiting materials for the online course. Over 85 hours were recorded in support of these efforts.

- **DELTA Photography.** Provided photography and editing support for course production, internal and recruiting initiatives. Over 120 hours were recorded in support of these efforts.

- **DELTA ISS Workshop Brochures.** Worked with ISS Faculty Development & Support Services to develop printed materials, banner display and digital advertising for ISS workshops held each spring, summer and fall. Over 240 hours were recorded in support of these efforts.

- **DELTA ISS Summer Institute.** Provided graphic design and brand management for the annual training event. Over 44 hours were recorded in support of these efforts.

**NCSU Events and Marketing Initiatives:**

- **NCSU LITRE Expo.** Assisted with exhibit design, web site graphics and event PR. Over 125 hours were recorded in support of these efforts.

- **NCSU Campus MovieFest.** Provided consultation, production management, graphic design, marketing and helped coordinate advertising support for the campus-wide event. Over 180 hours were recorded in support of these efforts.

- **NCSU Copyright Brochure.** Developed in partnership with the NCSU Provost Office and a student from the College Of Design’s Department of Graphic Design, this interactive print piece was created to inform and assist faculty in navigating the complexities of copyright law. Over 300 hours were recorded in support of these efforts.
Research

- **Tools.** Researched a number of new and emerging technologies as they fit into the NC State environment, including Drupal, Moodle, classroom response systems (Turning Point Clickers), Elluminate, LecShare, CourseGenie, WordPress (to use for DELTAwire), etc. Extensive reports created based on the Moodle research can be found at: [http://wikis.lib.ncsu.edu/index.php/LMS_Strategy](http://wikis.lib.ncsu.edu/index.php/LMS_Strategy). Researched, documented and created new Remedy solutions for Moodle, Mediasite, SafeAssign, Turning Point clickers. Blackboard Vista, Elluminate, etc.

- **Student Learning Outcomes.** Initial research related to Large Course Redesign outcomes. Review the Large Course Redesign section for information about each project.

- **DELTA Online Student Flashcard Tool Usability Study:** After developing a stable version of the DELTA Online Flashcard Tool, we did a usability study as part of an effort to guide further development. We took several approaches to developing the tasks for the study:
  - We looked at research that had been done on flashcards in order to generate tasks for the study that were based on sound pedagogy.
  - We found and explored other flashcard delivery systems to find common tasks.
  - We surveyed students in three courses that used the beta version of the Flashcard Tool to get their assessment of the usefulness of the flashcards as a learning tool and to get feedback on usability problems.
  - We held a focus group meeting with DELTA staff and instructors who had used the beta Flashcard Tool with their students to gather feedback regarding additions that they would like to see made to the tool.
  - After all the pre-work, we developed questions for the Usability Study, based on the tasks to be tested, and met with Angela Ballard from DH Hill Library to receive training on the Usability Lab. We wrote and submitted the study for IRB approval and after receiving approval, conducted the usability study on 4/14/09. Six subjects used the Flashcard tool to complete a set of tasks and were interviewed afterwards. We are using the results of the study along with research into pedagogical approaches to self-study tools in general and flashcards in particular to guide future development.

- **Online Collaborative Video Editing Research:** While most DELTA IDEA Grants support the development of DE courses, a new type of grant supports the exploration of an emerging technology that would benefit Distance Education. We worked with Dr. Michelle Harrolle and Charlie Morris in the College of Natural Resources to find an online tool that would facilitate groups of students to collaboratively create a video.
Michelle had already used this activity in a face-to-face course. She had both group- and student-generated video presentations instead of in-class presentations as a way to deliver group projects (i.e., sponsorship proposals). Her instructional goal was to provide a delivery system that would enable students to have an engaging and active learning process by working in groups to produce creative videos that would communicate their group projects, instead of wasting valuable class time with ineffective in-class group presentations. Students were to gather information that they learned in class, create some form of video presentation, deliver their work online, and discuss the videos.

We met with Michelle and Charlie and came up with a set of requirements for an online collaborative video editing solution. The basic goal was to find a system that allowed several students to all have access to a single video project that they could create and edit together without having to install specialized software.

We started with a quick search and brainstorm for possible online video editing solutions and ended up with six candidates. We involved folks from Instructional Support Services, Video Communication Services, and Media Distribution Services in the brainstorming and then in the initial evaluation of the possible solutions. After this initial evaluation we weeded out four candidates and moved on to a more-detailed side-by-side comparison based on many of the findings of the earlier explorations. This final comparison yielded a choice between Jaycut, which was a closer match, feature-wise, to the initial set of requirements and Kaltura, which is easier to use both for students and for instructors. After a consultation with Michelle, she decided to use the Kaltura software program with students in her summer course to create both individual and collaborative video media presentations. We created tutorials for creating and editing the Kaltura videos for the students and created instructions for embedding the videos in the course for Michelle.

After the summer semester, Michelle reported that the final product of this IDEA grant was a tremendous success. Students were able to create online videos for the DE course. In the future, she is planning to have both the DE students and face-to-face students use an updated version of the Kaltura software. Further, the College of Natural Resources believes this is a tool that could be a tremendous asset to the DE program university wide at NCSU and is planning to conduct a pilot program with multiple instructors over the coming year using Kaltura’s hosted service. They are working to keep DELTA informed of their progress with Kaltura.

Serious Games. The DELTA ISS Multimedia team continues to move forward with researching ways to enhance student engagement by investigating social media applications, Serious Games development, 3D game engine technologies and online virtual environments for teaching and learning. The primary problem this research addresses is how to handle labs for Distance Education courses. Our research efforts have moved from a heavy focus on Flash development to
a more concentrated effort in game development engines such as Torque and Unity 3D. These technologies are being explored in partnership with CSC, Digital Games Research Center, Intellimedia, Entomology, USDA-APHIS and the College of Design’s Advanced Media Lab. We continue to consult with local game development studios and have furthered our partnership with SparkPlug Games, Icarus Studios and VenueGen. Additional activity can be viewed at: http://ncstateunity3dgeeks.ning.com/. Over 816 hours were recorded in support of research in this area.

- **Second Life** has been another area of focus for the DELTA ISS Multimedia team, and the team has seen a rise of participation from faculty and NCSU College Communicators over the past year, fueling the growth and potential of this 3D online learning environment (3DOLE). http://slurl.com/secondlife/NC%20State%20Wolflands/93/116/22. Over 429 hours were recorded in support of research in this area.

**Staff**

**Changes**

- Allison Giro, Administrative Support Specialist (Workshop Coordinator), was hired to replace Kim McAllister, who left DELTA to join OIT as March Hoit’s Executive Assistant.
- Greg Kraus was promoted from Instructional Technologist to Senior Instructional Technologist.
- Cleo Magnuson and Ruth Smith joined DELTA ISS as Instructional Designers, to replace Kim Rothwell and to fill a new position.
- **Technical Writing Internship.** DELTA hosted its first technical writing intern in the spring 2009 semester. Partnering with Dr. Susan Katz in the Technical Writing Program, DELTA hired Nick Rodenberg, a senior undergraduate English major for a for-credit, semester-long internship. Nick’s primary task was writing Web content for ANS 105, and this proved to be a successful method of creating content for a course. Nick also provided editorial support for several small projects and implemented many of the Web site change requests in 2009. Both Nick and Dr. Katz were pleased with the internship, and Dr. Katz is very interested in DELTA hosting future technical writing interns.
- David Tredwell was hired as a Multimedia Specialist - Applications Developer and Scott Dubois was brought on as a Multimedia Specialist - Web Designer.
- In continued partnership with the Marketing Office, Heather Barbour served as a Project Manager for marketing initiatives.
- Throughout the year, vendors and/or Professional Temporary Staff were hired to further extend the capabilities of the team or fulfill specific project requirements.
**Professional Development and Activities**

- Andy Click, Technology Support Technician, completed Blackboard’s Certified Trainer program.
- Mike Cuales, Amanda Robertson, PJ Odom, Ben Huckaby, Scott Dubois, and David Tredwell presented *Engaging Students with Multimedia for Improved Learning* at the 2009 UNC TLT Conference, Raleigh, NC.
- Lisa Fiedor, Technology Support Specialist, and Dr. Traci Temple, Assistant Director of Instructional Development, moderated the 2009 TLTR Session, “Large Courses – Hard to Teach ‘em – Harder to Learn in ‘em.”
- Lisa Fiedor, Technology Support Specialist (with co-authors Terry Hompson and Saroj Primlani), *Guidelines for Making Web Content Accessible to All Users*, EDUCAUSE Quarterly, Volume 32, Number 1, 2009 (http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/GuidelinesforMakingWebContentA/163867)
- Lisa Fiedor, Technology Support Specialist, presented *Using a Rubric to Evaluate the Accessibility of Moodle* with Saroj Primlani at the 2008 Accessing Higher Ground Conference, 11/14/2008.
- Lisa Fiedor, Technology Support Specialist, presented *Raising Awareness for Universal Design for Learning and Web Accessibility on a University Campus* at the 2008 Accessing Higher Ground Conference, 11/14/2008
- Lisa Fiedor, Technology Support Specialist, presented *Strategies and Resources for Working with Faculty to Develop Accessible Online Course Materials* at the UNC TLT Online Conference, 2009.
- Lisa Fiedor, Technology Support Specialist, and Greg Kraus, Senior Instructional Technologist, presented *Universal Design for Learning and the Ethics of Web Accessibility* at the UNC TLT Online Conference, 2009.
- Lee Ann Gillen, Instructional Designer, participated in the LearnNC Online Science Pedagogy Focus Group.
- Lee Ann Gillen, Instructional Designer, and Keith Harris (faculty member, Food Science) presented *Rich Media for Student Engagement* at the UNC TLT Online Conference, 2009.
- Lee Ann Gillen, Instructional Designer, and Shannon Pratt, Jada Bing (faculty members) presented *Are DE Anatomy Labs as Effective as Face to Face Labs* at the UNC TLT Online Conference, 2009.
- Lee Ann Gillen, Cleo Magnuson, Cathi Phillips and Ruth Smith, Instructional Designers, “hosted” one day of the 2009 TLT conference by reserving a room at the library, and having it set-up with a projection of an online session. David Howard and Cathi Phillips helped to facilitate the session.
- Greg Kraus, Senior Instructional Technologist, presented *Build Your Own (Accessible) Learning Technologies*, at the 2009 EDUCAUSE Learning Initiative (ELI Poster Session).
• Greg Kraus, Senior Instructional Technologist, provided a demonstration of the “Me Too!” and “Timeline tools” at the November, 2008 Tri-IT meeting.
• Greg Kraus, Senior Instructional Technologist, presented *Universal Design in Learning*, at the 2009 UNC-TLT online conference.
• Greg Kraus, Senior Instructional Technologist, and Beth Shepherd, Instructional Technologist, presented *Creating LMS Agnostic Web Content: Strategies and Techniques* at the 2009 UNC-TLT online conference.
• Greg Kraus, Senior Instructional Technologist, and Beth Shepherd, Instructional Technologist, presented *Elluminate at NCSU* at the 2009 Elluminati conference and Elluminate Regional conference.
• Cleo Magnuson, Instructional Designer, and Glenda Crawford, Elon University, presented *MED 562: The Loss of a Sonata Unwritten*¹ Gallagher (1994), at the 2009 AECT conference.
• Dr. Donna Petherbridge, Associate Vice Provost for Instructional Support Services, taught EAC 580, Instructional Design (fall 2008), and EAC 586, Methods & Techniques of Training & Development (spring 2009) as an Adjunct Assistant Professor in the College of Education.
• Dr. Donna Petherbridge, Associate Vice Provost for Instructional Support Services, Stacy Gant, Associate Director of Faculty Development and Support, and Greg Kraus, Senior Instructional Technologist, presented “An Update on the Moodle Pilot at NC State University” at the UNC TLT Virtual Conference presentation, March 17, 2009 (via Elluminate, Raleigh NC).
• Dr. Donna Petherbridge, Associate Vice Provost for Instructional Support Services, was a reviewer for Vol. 28, of *To Improve the Academy* (Professional and Organizational Development Network (POD), January 2009.
• Dr. Donna Petherbridge, Associate Vice Provost for Instructional Support Services, led the research and reporting effort related to the Moodle Pilot, and was first author of all Moodle pilot assessment reports and the overall Moodle pilot report. Dr. Traci Temple, Assistant Director of Instructional Development, co-wrote the *Feedback from the Fall 2008 Moodle Pilot Students: Experiences in Learning with Moodle* report. See http://wikis.lib.ncsu.edu/index.php/LMS_Strategy for all reports.
• Dr. Donna Petherbridge, Associate Vice Provost for Instructional Support Services, was appointment to the University Standing Committee on Evaluation of Teaching, 2008-2010.
• Dr. Donna Petherbridge, Associate Vice Provost for Instructional Support Services, was appointed to the UNC TLT board, and was elected secretary to the board.
• Dr. Donna Petherbridge, Associate Vice Provost for Instructional Support Services, continued to serve as an adjunct assistant professor in the College of Education, teaching two online courses over the course of the year: EAC 580 & EAC 586.
• Cathi Phillips, Instructional Designer, presented a seminar as part of the UNC-Wilmington Masters of Science in Instructional Technology Colloquium on *Instructional Design/Visual Design*.
• Cathi Phillips, Instructional Designer, facilitated a session at the 2009 AECT conference.
• Amanda Robertson, Senior Multimedia Specialist, continued to serve as an adjunct assistant professor in the College of Design, developing and teaching AND 219.

• Beth Shepherd, Instructional Technologist, completed the ASTD certification program on Facilitating Synchronous Learning

• Beth Shepherd, Instructional Technologist, was certified as a Microsoft Certified Application Specialist in Word 2007, Excel 2007, PowerPoint 2007, and Outlook 2007.

• Dr. Traci Temple, Assistant Director of Instructional Development, and Lisa Fiedor, Technology Support Specialist, presented Developing A University-Wide Large Course Redesign Program at the 2009 UNC TLT Conference, Raleigh, NC.

• Dr. Traci Temple, Assistant Director of Instructional Development, and Dr. Ted Branoff, College of Education, presented Large Course Redesign: Moving an Introductory Engineering Graphics Course from Face-to-Face to Hybrid Instruction at the 2009 UNC TLT Conference, Raleigh, NC.

• Dr. Traci Temple, Assistant Director of Instructional Development, presented Millennials, technology and teaching in higher education at the 2008 Accounting Education Forum, North Carolina Association of CPAs, Chapel Hill, NC.

• Various members of the DELTA ISS staff have taught workshops/seminars and/or given presentations internally at NC State University this year, including: Dr. Donna Petherbridge, Stacy Gant, Andy Click, Beth Shepherd, Greg Kraus, Lisa Fiedor, Dr. Traci Temple, David Howard, Cathi Phillips, Cleo Magnuson, Lee Ann Gillen, Ruth Smith, Mike Cuales, Amanda Robertson, Ben Huckaby, Alyson Tuck and David Tredwell. Workshops/seminars and presentations have ranged from instructing in DELTA’s regularly scheduled workshops and/or custom trainings, presenting before various college and departmental level meetings/groups, presenting and/or facilitating Teaching and Learning with Technology Roundtable (TLTR) discussions, and publishing on the blern blog (http://blogs.lib.ncsu.edu/roller/blern/) or deltawire (https://deltawire.delta.ncsu.edu/).

• Various members of the DELTA ISS staff have participated in the following selected conferences/seminars/professional meetings/professional development during FY 08/09:
  o AECT Conference
  o BbWorld Conference. Las Vegas, July 2008
  o Distance Education Conference – Madison, WI
  o Educause webinars
  o Educause Learning Initiative seminars and webinars (including Widgets, Speak-Up – Looking at Tomorrow’s Students 2.0, Role of Play in Learning)
  o EDUCAUSE Annual Conference. Orlando, October 2008
  o ELI Conference
  o Elluminati regional users conference (fall 2008)
  o E-seminars on Using a Template for online course development and an e-learning tour
Flash ActionScript 3.0 training
Future of Gaming lecture series with Sebastian Matyas
Innovations in Instruction Conference – Elon University, NC
New Media Consortium online events/webinars
NC Speech-Language Hearing Association Conference, Raleigh, NC
NC State University Teaching and Learning with Technology Roundtable (TLTR) sessions, including Serious Games, Moodle/LMS discussions, Large Courses
NC State University LITRE Expo – Raleigh, NC
NC State University OIT Expo – Raleigh NC
NC State University 2009 Millennium Seminar
NC State University CSC Lecture Series: Building the Perfect Team presented by Mike Capps, CEO Epic Games
NC State University ECE Entrepreneurs Lecture Series: Marshal Brian
North Carolina Distance Learning Association – online
Triangle Instructional Technologists (TRI-IT) meeting (fall 2008)
Second Life – Step Into Science Symposium
South by Southwest Interactive (SXSW)
Symposium on Life Science Education – RTP, NC
TLI, UNC-Chapel Hill’s ITS sub-group responsible for multimedia learning objects – meeting
Triangle Games Conference
The UNC Online initiative (TUNCO)- meetings
UNC Teaching and Learning with Technology Conference Annual Conference - online.
Raleigh, March 2009

- Various members of the DELTA ISS staff are members and/or active in supporting the following selected professional organizations:
  - ACM –SIGGRAPH
  - AIGA – University Web Developers
  - ASTD-RTA
  - EDUCAUSE
  - EDUCAUSE Learning Initiative (ELI)
  - ITFORUM
  - Learn NC
  - New Media Consortium
  - UNC TLT 2009 Conference Program Committee
  - UNC TLT 2009 Conference Nominating Speakers Committee
  - UNC TLT Board
  - The TLT Group: Teaching and Learning with Technology
Awards

ISS staff members received the following recognition and awards in FY 08/09:

- DELTA ISS Creative & Multimedia Team. The NC State Copyright Brochure, designed and created by this team, was chosen for a juried exhibition of design in North Carolina for the DXR Design Expo at the Mint Museum of Craft and Design in Charlotte and Flanders Art Gallery in downtown Raleigh, NC.
- DELTA ISS provided instructional design and multimedia support for FS 201 Food Safety, taught by Dr. Keith Harris, which was chosen as the 2009 Gertrude Cox Award winner (see http://www.ncsu.edu/gertrudecox/winners/).
- Stacy Gant, Associate Director of Faculty Development and Support, was the winner of the 2009 Awards for Excellence (EPA, Provost’s Unit).
- Lee Ann Gillen, Instructional Designer, was nominated, along with Karen Tharrington (faculty member) for the Gertrude Cox Award (see http://www.ncsu.edu/gertrudecox/winners/).

Diversity, Retention, and Staff Well-Being

Maintaining a fun, motivating and functional work environment is key to retaining and attracting a diverse, talented creative staff. The DELTA ISS team is composed of a broad range of people that possess a variety of skill sets. Their unique personal and educational backgrounds contribute to defining the group and result in innovative design solutions for teaching and learning with technology.

- DELTA ISS Staff participated in two staff retreats during FY 08/09, where new staff had the opportunity to meet and become integrated into the larger team.
- DELTA ISS Staff members participate in DELTA Activity Committee activities, including events such as the HR sponsored spring fun walk, lunch outings, fall festival, Thanksgiving feast, and DELTA Holiday party. These events are all designed to increase staff morale, and a feeling of belonging and well-being.
- DELTA ISS Staff meetings allow for diverse discussion and varying viewpoints. Dr. Donna Petherbridge, Associate Vice Provost for Instructional Support Services, brings food to every staff meeting to underscore the message that the group is valued, cared for, and indeed, family.
• Flexibility in scheduling as a retention strategy is allowed for all DELTA ISS staff, including the ability to telecommute and start/stop the workday at varying times in order to balance work and family.

**Concerns and Recommendations for the Future**

• **Staff motivation and retention in the long term.** The entire staff of North Carolina, to include our University, has experienced a very difficult budget year. Major disruptions have occurred as a result, including RIFs, furloughs, loss of pay raises, cost of living increases or any other compensation such as bonus leave, cancellations of professional development opportunities, and putting on hold purchases of various technologies and resources that would help move forward important research and development work in the learning technologies field. Staff morale, as a result, is lower, and people worry about not only keeping their jobs, but being able to develop and grow professionally to be able to address the continued long term challenge of staying abreast of the changes in our field. Due to recent budget cuts and restrictions, DELTA ISS staff have not been able to attend key conferences and training initiatives that directly contribute to job performance, as these activities contribute to the growth, abilities and retention of a professional design staff. I am very concerned that we will lose technology staff in the long term at the first sign of economic recovery unless we are able to address this issue. I recommend lifting travel restrictions as soon as feasible.

• **Multiple, Web-based Learning Management Systems (LMSs).** Supporting several campus LMSs is a strain on staff resources. We are excited about the campus move to a set of Web-based learning tools integrated at one Web-entry point, via “WolfWare.” This should increase future efficiencies in support, though transitioning the current Blackboard Vista users into this new system will take much planning, time, and effort. In addition to all campus licensed Web-based tools, we should look at other Web-based tools students are being asked to use as part of their education and understand how to minimize multiple points of entry into the Web-based learning space.

• **Support Calls.** The volume of support calls continues to remain high, but steady. Currently, this volume is manageable by our existing faculty support staff (including student/temp employees), and a 3% decrease in volume was noted from last year. However, for the level of support to remain sustainable, we must maintain all existing resources (e.g. keep funding our student employees), and continue collaborating closely with the OIT Help Desk to leverage their support for tier one/solution-ready calls to avoid significant increases in call volume.

• **Leveraging Production Work More Widely.** DELTA course production programs need to better leverage the work done on individual projects into resources for the wider NCSU community. Several approaches to this have been started but need significant progress moving into the future, including:
o Creation of an online course development resource. The course development resource will have reusable templates, documentation about creating effective course materials, advice about how to meet certain learning objectives in an online environment and examples of innovative and instructionally-sound learning materials.

o New IDEA Enhancement Packages. These packages will be given to people who apply for IDEA Grants but are not supported with a full award. The enhancement package includes a minimum of six contact hours, a written plan of action based on the consults, and a packet of materials derived from previous work by the production team, the Faculty Development Services unit and other sources.

o Submission of many project reports to the DELTA Gallery. The DELTA Gallery is intended to showcase work done across DELTA. The production team will actively participate in the design and development of the Gallery and then contribute to it. Hopefully these two efforts will have significant overlap. The course pages featured earlier in this report are a first step toward gathering material for the portfolio.

- Evaluation of Course Development Efforts. The DELTA ISS production team should begin to evaluate the effectiveness of our projects both in terms of how well we serve the faculty we work with and how effective the course materials we create are in helping students meet identified learning objectives. In the coming year, we will create a survey for faculty who have participated in one of the course production programs and then start to make it a regular part of our project wrap-up process. The results will help us to evaluate and improve our course development process. We will also work on small research projects in collaboration with faculty to evaluate the effectiveness of instructional innovations.

- Managing Multiple Projects. Last year, DELTA ISS staff began to stagger project start dates by necessity, as we could not start development on all IDEA grants and production needs simultaneously. Although this has caused some stress, in general it has been effective at keeping production team efforts more focused. We will endeavor to continue staggering start dates and prioritizing team efforts with the goal of having a relatively small number of projects active at any given time, while still starting projects in time to meet course delivery deadlines.

- Project Management Resources. Continued efforts to improve production management processes across DELTA will have a positive impact on quality of product, provide increased visibility and improve opportunities to share resources environment. An emphasis should be placed on client management (internal and external to DELTA) and developing strategies for measuring and improving outcomes. Part of improving production management is identifying an integrated reporting and project management system that could be shared across the organization. A well-implemented system will improve efficiency, consistency of reports and tracking, allow for better project and resource planning and help reduce administrative overhead. Additional specialized staff are needed to assist in project management and project coordination.
• **Balancing the DELTA ISS Creative and Multimedia Team’s time across various organizational needs.** During FY 08/09, the DELTA ISS Creative and Multimedia team illustrated the breadth of the team’s ability to provide support across all DELTA units, as the team provided time to many DELTA projects and initiatives, including DE course production, DE student recruitment (including the development of a new DE Web site and various ad campaigns - marketing), DELTA branding initiatives, such as signage/placement for the new space and the redesign of materials with outdated branding (marketing), support of internal projects that brand courses and programs in places as varied as Mediasite and Moodle, and external work, such as support for the LITRE Expo and the NC State Copyright brochure. We will need to continue to find time and ways to ensure that the need for supporting courses and doing research into emerging media technologies is met, balanced with strategic marketing and other priorities. In FY 08/09, the “marketing” category hours for the Creative and Multimedia team’s time were higher due to a number of factors, including DELTA’s move to new space, DELTA branding initiatives, the development of the new DE Web site, work with the LITRE Expo, work on a NC State copyright brochure, etc. The impact of reduced Creative and Multimedia team time for course production projects is two-fold: less availability of multimedia resources for the creation of multimedia learning objects in courses, and less availability of creative thinking from a multimedia perspective in course production in the early stages. The continued need for creative and multimedia support across numerous areas will mean careful allocation of and continued support of existing resources. Part-time staff and a flexible budget for outsourcing is important for supporting appropriate tasks and keeping full-time professional staff focused on mission critical tasks. Current constraints on the use of vendors, recent freezes on temporary staff, and the need for better resource allocation contribute to inefficiencies and overload.

![Figure 29](image)

**Figure 29.** Multimedia and Instructional Design Hours per category.
Figure 30. Creative and Multimedia Services hours by category.
Educational Technology Services

Summary

ETS has had significant diverse activities over the fiscal year. The one theme is service to teaching and learning. While the groups are a diverse mix with different priorities, they all share that common goal. Please read below to see the individual accomplishments of the groups.

Programs

Applications Development (AD) program initiatives include the following:

- Moved BlackBoard Vista grade submission integration with Registration and Records from limited testing with College of Veterinary Medicine to all courses starting in the fall semester.
- Completed migration of data feeds from the Legacy student system to SIS during the spring 2009. This data is used by our three LMSs (WolfWare, Vista, MoodlePilot) as well as DELTA business applications reports.
- Completed updates to WolfWare and Vista grade submission interfaces for spring 2009 grade submission to submit to SIS instead of Legacy.
- Participated in the DE Focus on the Future Web site redesign project, providing back-end support, application coding and database design, with the new distance.ncsu.edu Web site going live in May 2009.

Application Support (AS) program initiatives include the following:

General

- Creating enterprise level systems for Moodle, Elluminate, DELTA Intranet applications, etc.
- Creating monitoring systems using Nagios and a Coradiant appliance to allow for quicker notification and response for hardware/software problems.
- Continued maintenance of existing systems with small changes to architecture and configuration.

Vista

- Created backup space on X4500 for local backup of primary db.
- Continued work with Blackboard Support to fix garbage collection issues that have existed for over a year.
- Added additional monitoring of individual managed nodes and primary database server.
- Fixed issues with redundant network to provided better uptime should certain network pieces fail.

**Elluminate**
- Installed new server with a more robust database (MySQL) and migrated data to it.
- Upgraded to version Elluminate 9.5.
- Added additional Nagios monitoring.
- Also added service level checks to Coradiant appliance to notify when there is a slow down and possible problem with the service to allow us to be more proactive.

**Moodle**
- Created a distributed enterprise level architecture to provide more redundancy and fault tolerance in the Moodle service. This also allows for more load to be handled by the complete system than would be possible with a single system.
- Added much more system monitoring using Nagios and Coradiant.

**Media Distribution (MDS) program initiatives include the following:**

**DVD Production**
In January of 2009 the Distance Education Department met with MDS and advocated for the elimination of DVD distribution, due to excessive Bookstore costs. We agreed, having already advocated online media delivery as an alternative. However, DE was not ready for elimination of DVDs until the following year, FY 09/10. Therefore distribution of DVD sets throughout FY 08/09 year was normal, and in fact at levels higher than ever before. However, as online podcast files became available, student use of DVD sets dropped off precipitously. The podcast effort has been a complete success.

**Podcasts**
The initiation of video podcasts makes FY 08/09 a red letter year for Media Distribution. Peter Watson approached Melissa Williford in the summer of 2008 with the proposal that a couple of fall 2008 classes be pilots for video podcast distribution. The two classes were selected for the fall, and the podcasts proved so successful that all DE classes being recorded in spring 2009 were podcast.

By the end of FY 08/09 Media Distribution had encoded 70 complete courses consisting of over 2,000 individual MPEG-4 files. The podcast files were virtually error free. Heavy student use of the online files made elimination of DVD distribution possible.
Collaboration with Colleagues

Peter Watson, Associate Director of Media Distribution Services:

- made a presentation for Rebecca Swanson and the campus DE coordinators on July 30, describing podcast capabilities
- as an outgrowth of July 30 presentation, was contacted by MBA program director. Followed up by bringing in Tony Pearson and meeting with College of Management leadership on projects (budget prevented any realization of them).

MDS Staff:

- worked with Keith Morgan in the NCSU Library on a project for delivery of supplemental films for DE classes, using Library QuickTime server. Found Library support problematic, shifted content over to our podcast project
- attended staff meeting with Stacy’s group, discussed collaborative opportunities.
- worked with DELTA Creative and Multimedia Production on Flash player project
- worked with Bill Hicks and Daniel L’Hommedieu in Jeff Webster’s group on Linux server for R&D purposes
- worked with VCS on a number of projects
- provided services for Traci Temple on the Large Course Redesign project
- provided support for the ITAP project
- facilitated captioning of CSC 214 for hearing impaired student
- provided Dr. Ed Sabornie digital media support for his classes
- provided digital media conversion services Mathematics Department Math Lab.

Cable Channel 18

- MDS operated the CRC cable channel 18, twenty-four hours a day, seven days a week.
- I spent a lot of time working on an AT&T proposal to carry channel 18, but the proposal itself by AT&T ran against the laws governing PEG access channels, and required NC State to accept equipment that no one was willing to take responsibility for, something we would not do. Once we reached that impasse, the whole thing went away and we haven’t heard from AT&T since.

Video Communication Services (VCS) program initiatives include the following:

Classroom Capture Systems

In the fall of 2008, VCS launched a Rich Media integration program into all DELTA classrooms, significantly boosting the quality of video courses offered online. With the emergence of Rich Media
applications that combines audio, video, and synchronized instructional content, as the preferred method of distance education delivery DELTA is able to provide a richer, more dynamic experience for the growing number of students learning through distance education.

**Day-to-Day Operations**

A significant portion of VCS staff time and funding is devoted to providing assistance and keeping classroom systems, applications and systems running on a daily basis. Every member of the team dedicates time to operating, updating and communicating about our services and their status. We include everything from running DELTA classrooms and production systems, to ensuring a robust media production environment. VCS offers services that administrators, faculty, and staff rely on every day. Much of this work is routine, but it is essential to the distance educational mission of the DELTA.

**Customer-Facing Operations**

For many on our campus, the VCS Web site provides their initial contact with the services, products and information provided by our department. Faculty and staff also interact directly with VCS personnel whenever they enter a DELTA classroom, Video conference room, or attend a classroom orientation and or SMART training course from our training team.

**Behind-the-Scenes Operations**

Whether it is in the classroom, in the field, setting up video conferences, or other essential services, VCS has a team member that attends to it. Our hard-working, dedicated staff implements, runs, monitors and plans for the future of media based applications in DELTA. Comments from faculty and staff provided later in this report clearly suggest that our reputation for providing the best customer service available is what we aim for.

Our Media technicians group is responsible for the operations of all classrooms and video conference rooms. Since last June, this group has spent most of its time keeping services running at an acceptable level of performance. A major emphasis for this team is ensuring scores of classroom lectures are uploaded minutes after each session is recorded.

The Production group supported the University and DELTA in the development, creation, and implementation of media programs and applications.

The following accomplishments were completed in FY 08/09:

**Operational Statistics:**

- Provided production services to 60 campus departments and state agencies through our comprehensive suite of services: consultations, video conferences and multimedia projects. This reflects a 57% increase in departments utilizing our services over last year.
- Supported the university through the booking of 5,460 work orders totaling 7,655 hours of services.
• 5,297 of those hours were directly related to Distance Education courses produced in our Media-Rich classrooms.
• 869 hours transmitted via H.323 to various interactive classrooms and sites off campus, including 410 hours transmitted for the Engineering 2+2 and BSE programs.
• 710 hours of Interactive Video Conferencing supported and produced in our video conference rooms.
• 7 Rich Media capture systems (Mediasite) integrated into our services without downtime and with very few people realizing the transition was underway because of thorough expert planning and execution.
• 400 hours of Producer Planning, Video Editing, and Field Shooting provided to various departments.

**Upgrades/Modifications**

- The Polycom Readi-Manager SE200 was upgraded in May 2009 to the Polycom CMA. Allowing VCS to offer a centrally-managed visual communication tool to manage telepresence, video conferencing, desktop PC, and multipoint video resources. By leveraging the current VCS infrastructure, CMA provides collaboration over distance more efficiently with point and click sharing of content with other users and teams.

- MRC 313 was upgraded to High Definition (HD) Video Conferencing in August 2008

- Withers 125 became the first instructor-controlled distance education classroom and was used for two distance education courses during spring 2009. The new classroom received very positive remarks from faculty using the new technology in the room.

  Comments from Faculty:
  “It is a great room and EVERYONE was so helpful”
  Debbie Williamson, Ed.D.
  Department of Physical Education

**New Business Communications, Processes and Systems**

• VCS has implemented a number of new business communications, processes and systems over the past year to improve transparency and collaboration within the department.

• The VCS Management Team, established in 2007, leads the way in improving VCS communication, both within our department and throughout campus. Information development, marketing communications and project management are just a few of the functions of this group as they bring awareness, customer-based documentation and transparency to the many products, services and work teams of VCS. To accomplish these goals, the management team initiated the following:
The DRAT - Discrepancy Reports Auditing Technician
- The DRAT investigates problems, follows-up to make sure problems are resolved, and informs whomever needs to be informed of the issues
- Created Video Conferencing Guidelines for DELTA conference room users
- Instituted regular interactive white board training/work shops
- Instituted structured orientations of the DELTA classrooms
- Updated the Faculty guide for DELTA classrooms
- Created standard operating procedures for Mediasite file deletions
- Created standard operating procedures for Video conference room requests.

Major Accomplishments and Challenges
- Construction of Park Shops was completed in May 2009, providing Delta with an 88-seat high definition (HD) Media-Rich classroom. Parks Shops also includes a full production suite with a 637-square-foot television studio, two non-linear video editing suites, production gear storage, and an 8-seat high definition (HD) video conference.
- VCS reverted back to an internal method of charge backs for non-distance education funded services.
- Tony Pearson received his SMART certification in January 2009. The SMART Certified Trainer designation indicates that SMART Technologies Inc. recognizes the certified individual as a qualified trainer for SMART Board™ interactive whiteboards, software version 10. SMART Certified Trainers have completed a rigorous training program that tests both their technical aptitude and ability to train others.
- Darren Ley received his SMART certification in May 2009

Engineering program initiatives include the following:

Rich Media Project
- Mediasite operational testing performed during summer 2008 in preparation for fall 2008 semester roll out.
- Mediasite used as new primary classroom content recorder for fall 2008 and spring 2009.

Facilities Projects
- Withers Hall Room 125 (New Facility)
  - System equipment tests completed July 24, 2008.
  - Facility used for first classes in spring 2009.
- MRC Room 313 Renovation and Control Room 314 Upgrade
  - Control and classroom equipment installation and testing completed August 20, 2008 (First day of fall 2008 semester)
Camera and Pan/Tilt System Upgrades
- Upgrade to new digital cameras and pan/tilt systems in MRC, EB2, Poe Hall and Winston Hall VCS Classroom facilities completed for use by beginning of fall 2008 semester.

Park Shops DE Classroom and Studio Room 130, 132
- Class and control room construction complete.
- Partial construction of studio complete (remaining construction incomplete due to budget restrictions).
- Class and control room system design and equipment list completed.
- Purchase order issued to vendor April 15, 2009.
- Scheduled installation completion date June 15, 2009.

Mann Hall Upgrade

**DELTA-wide facilities and equipment changes included the following:**

- Much of DELTA consolidated into the Venture II building from Venture III & IV. Networking infrastructure installation was handled by Communication Technologies. Numerous DELTA staff volunteered to come in one Saturday to move and reconnect computers and other equipment. Thanks to everyone’s efforts, the transition was very smooth.

- Security cameras were installed in the Venture II suite, with installation, monitoring, and recording handled by Environmental Health & Safety. These cameras, along with ones previously installed in our Distance Education classrooms and control rooms, help protect people and assets. Cameras in the proctoring exam rooms also serve to deter cheating.

- DELTA joined NC State’s Microsoft Windows Campus Agreement, as well as the Adobe Term Site License for Acrobat. These will allow for significant cost savings as we move to Microsoft Windows 7 and Adobe Acrobat 9.

**Research**

**Applications Development**

For FY 08/09, the two primary areas of research for AD were Moodle and classroom capture technologies.

**Applications Support**

The upcoming year will utilize many technologies being researched currently by Application Support. These changes in the existing architecture will include:
• Implementing and installing a new production database server for Vista and upgrading the Oracle software to 10g. We will also be removing the large amounts of garbage that has been accumulating since the garbage collection has been failing for over a year.
• Creating new managed nodes for Vista using virtualized machines, which will allow us to retire older hardware.
• Switching to a fully clustered and highly available Moodle system with redundant front-end nodes and redundant MySQL database servers.

**Media Distribution Services**

Media Distribution has been deeply involved in research related to the podcast project: MPEG-4 file encoding parameters, HTML and RSS code writing, Telestream Episode Engine Pro encoding and transcoding.

MDS has also worked extensively with David Tredwell in DELTA Creative and Multimedia Production Services on the online video player for MPEG-4 and Flash.

MDS conducts ongoing research on all manner of online deployment and distribution of media by keeping current with the marketplace and contacting other institutions of higher education.

**Video Communication Services**

Research efforts requiring travel, training, conferences or trade/industry events were curtailed this year due to the budget crisis.

While day-to-day operations make up the majority of the important services provided by VCS, it is also critical for us to continue researching future technologies. We strive to create a balance between maintaining our existing systems while looking to innovations and changes in technology. To this end, we have introduced new standard operating procedures and business processes, and we have initiated weekly management meetings to update team members on daily actions of the VCS Team.

To keep up with the growing pace of Distance Education (DE) courses, VCS must come up with new creative workflows to operate and maintain its classroom infrastructure. In 2007, talks began on developing a central control room to monitor, operate, and support all DELTA classrooms from one central location. Space was identified and approved in 2008 by the university space committee to house a new central control room and future VCS workspaces centrally located on main campus. Additional space for media-rich classrooms was identified and allocated in two future engineering buildings on centennial campus. Designs for this innovative control room on main campus have been completed and are awaiting construction. The control room will allow VCS to support all media-rich classrooms operated by DELTA, and with some small modifications, other media-rich classrooms not operated by DELTA can also be supported. This approach lays the foundation for building consistency with other SMART classrooms currently on campus. Future designs will enhance classroom-based learning for both on- and off-campus students and support the exponential growth in media used for online learning. Currently most SMART or media-rich classrooms on campus are instructor-driven classrooms. Future
Distance Education classrooms will maintain the instructor-driven concept but be completely monitored by technicians in a central control room. These media-rich classrooms will provide an optimal learning experience, regardless of where the student is when the learning occurs. Classrooms will have high-definition screens, document cameras, interactive whiteboards, and control systems that will allow instructors full or limited controls. Plus, full operational control can easily be administered from the central control room. This will enable any room to operate in an interactive session and essentially transport it to the growing number of students participating remotely.

Staff

Changes

Applications Development had many staff changes in FY 08/09; Tim Wright (Web designer) left on July 20, 2008 to go to the University of Southern California, Jonathan Champ (Web developer) started August 11, 2008 and Thomas Zack (Web developer) started on September 2, 2008. Thomas Wilson (Web developer) was officially transferred into the Applications Development group from DELTA Instructional Support Services on July 1, 2008.

In Applications Support, Daneil L’Hommedieu was hired as an Operations and Systems Analyst. Due to budget cuts, one additional position, an Operations and Systems Specialist, was abolished.

Three Media Distribution Services staff positions were reclassified as part of the campus-wide career banding initiative. Employees Robert Wilkerson, Brian Dyer and Robert Pence are now classified as Broadcast and Emerging Media Technicians. Part-time MDS staff member Kristin Kaufmann’s 10-hour a week position was cut. Her hours were shifted over to the Cooperating Raleigh Colleges (CRC) payroll. Her work on channel 18 continues and is paid for directly by the CRC. One full-time vacant staff position was eliminated from MDS as a budget cut.

John Gordon joined the Video Communications Services Staff in November 2008 as a Broadcast and Emerging Media Manager. All Production Assistant positions in VCS were career banded to Broadcast and Emerging Media Technicians. Producers and Media Technicians in VCS were career banded to Broadcast and Emerging Media Managers or Broadcast and Emerging Media Specialist.

Professional Development and Activities

Members of the ETS staff served on the following committees:

- GroupWise/WolfWise customer service team (Jeff Webster)
- IAM Service Team (Jeff Webster)
- IAM Shibboleth-Federation Working Group (Jeff Webster)
- Academice IT Directors (Lou Harrison)
- MCNC Collaborative Service WG (Lou Harrison)
Various members of the DELTA ETS staff have participated in the following selected conferences/seminars/professional meetings/professional development during FY 08/09:

- Lou Harrison and Jeff Webster attended EDUCAUSE, October 2008.
- Lou Harrison attended SIGGRAPH 2008 in Los Angeles.
- Jeff Webster attended UNCCAUSE, November 2008.
- Thomas Zack attended several Mediasite training courses.
- Jeff Webster completed HR Academy, June 2009.
- Lou Harrison was named chair of the ACM SIGGRAPH Student Services Committee.
- ETS staff members attended the DELTA Retreat.
- Peter Watson attended Manager’s meetings and worked on the DELTA Retreat.
- Peter Watson made a presentation to the Senior Management Team with Stacy Gant on behalf of the Manager’s group. All staff trained consistently with software, using Lynda.com.
- Several VCS staff attended the INFOCOMM Academy for professional and career-building knowledge, and a small team went to NAB.
- A small group of VCS staff also attended the Polycom User Group conference.
- Most professional development was eliminated due to budget constraints.

Concerns and Recommendations for the Future

As part of the budget reductions, Applications Development lost two empty positions; one Web designer and one Moodle developer. This means there is no longer a lead user-interface position in the group and no one whose primary task is Moodle development. The loss of the Moodle position will slow deployment of some features of our new LMS, powered by Moodle. In addition, these losses will slow deployment of new DELTA support applications and may result in halting development/support of existing applications as priorities are adjusted.

Media Distribution will continue to be a strong performer for DELTA, as it has for the past 6 years. The department has consistently improved the product it delivers while creating efficiencies and reducing costs. A concern is that this value is not fully recognized beyond the ETS department. There are resources in the Media Distribution department that have yet to be tapped by DELTA.

Application Support has had several challenges supporting existing systems this year, including a lack of personnel. One of the open positions was cancelled due to budget restrictions. This group is responsible for maintaining and supporting large, mission-critical systems for DELTA and the University as a whole and has done a good job with the limited resources available. A large amount of assistance came from the AppDev group by sharing the Linux and Solaris expertise of several people in that group.
Marketing and Partnership Development

Summary

DELTA Marketing & Partnership Development (MPD) provides leadership and vision for NC State marketing and partnerships for DELTA. This office is responsible for developing and implementing strategic marketing initiatives, market research/environmental scans to assess interest and need for new DE programs; as well as building and supporting collaborative initiatives among all colleges and units on campus, other University of North Carolina institutions, and other key partners.

The MPD team’s main responsibilities include the development and implementation of market research; establishing an attractive brand image for DELTA, specifically focused on generating interest in DELTA and learning technologies; increasing DE enrollments; and managing external strategic DE partnerships. MPD is a unit within DELTA comprised of members from three teams (ISS, MPD, DE). The integration of this exceptional talent and group of resources is an efficient, effective and strategic team process that provides the opportunity to execute the highest quality marketing and partnership products to serve NC State.

Programs

During the past twelve months, MPD has focused on a number of priorities as well as on maintaining the day-to-day services at a high standard. These priorities include the following:

- Develop and implement the strategic integration of DELTA staff members to comprise the high-functioning MPD team – combining staff members from ISS, DE and ETS. The MPD team redefined strategic integrated project-management to execute marketing projects in a more productive and efficient workflow process.
- Evaluate and implement new marketing technology capabilities for cost savings
- Implement strategic environmental scans to assess the need for new DE programs

The key priorities of the unit were achieved and day-to-day functions were carried out according to plan. The budget for FY 08/09 was met and balanced.

Objectives

- To build an integrated collaborative MPD team and implement strategic marketing approach for DELTA marketing and communications materials.
- Publicize and market DE academic programs through strategic online interactive marketing, maximizing Search Engine Optimization (SEO)/analytics Web site capabilities and partnership
strategies.

- Coordinate and streamline internal and external marketing.
- Implement strategic environmental scans to assess the need for new DE programs at the college level.

**Key Tasks**

- Publicize and promote all the DE academic programs to both undergraduate and post-graduate prospective students.
- Develop aggressive, timed marketing strategies (multimedia, SEO and personal marketing campaign - print materials, interactive marketing, promotional material, etc.).
- Track marketing campaign results; establish new communications tactics through the use of appropriate technologies.
- Coordinate and manage environmental scans, implement market research to evaluate the opportunity and realistic assessment of new DE programs to meet enrollment projections.

**Distance Education Integrated Interactive Marketing Initiatives FY 08/09**

**Goals**

Drive traffic to the landing page where users are encouraged to instantly download the PDF brochure, search for their DE program of interest and move toward inquiry about the DE program of interest with the DE program Director.

**Strategy**

**Yahoo Banner Campaign**

Purchase highly-targeted, high-frequency areas:

- Education Channel
- Mail
- RON

Geo-targeted to North Carolina

**Search Campaign**

Purchase terms that have been proven in previous campaigns:

- Degree Online
- College North Carolina
- Online Courses
- Purchase the top three major engines for greater reach
- Yahoo
Search Campaign
Provide varying pieces of creative for each term for higher click-through and conversion rates:

Online Degrees from NC State
  - Take control of your future and earn the degree you’ve always wanted.
  - distance.ncsu.edu

Go to college at NC State
  - Classes that fit your needs.
    - Find out more now!
      - distance.ncsu.edu

Results

Yahoo Banner Campaign Results
  - All impressions delivered as purchased (10,548,809)
  - .06% Click Through Rate (slightly above average)
  - 23% Conversion Rate (highest conversion rate for banner campaign for the past five years)

Conversion Rate Increases

Search Campaign Results
Yahoo
Top term for impressions, clicks and conversions: Degree Online
  - .81% Click Through Rate
Yahoo: Degree Online Creative
- **Online Degrees From NC State** .94% CTR
  Take control of your future and earn the degree you've always wanted.
  distance.ncsu.edu
- **Get Your Degree Online from NC State** .92% CTR
  Online degrees from NC State that fit anyone's life. Get info.
  distance.ncsu.edu
- **Get Your Degree Online at NCSU** .55% CTR
  Discover the online programs at NCSU. For more info.

Google
Top term for impressions: College North Carolina
- .74% Click Through Rate
- 129 Conversions

Google: College North Carolina Creative
- **Go to college at NC State** .76% CTR
  Classes that fit your needs.
  Find out more now!
  distance.ncsu.edu
- **Attend college from home** .41% CTR
  North Carolina college courses at NC State. Get more info.
  distance.ncsu.edu
- **Get your college degree** .31% CTR
  College classes to meet your personal and career goals. Get info at
  distance.ncsu.edu

Top term for clicks and conversions: Degree Online
- 2.12% Click Through Rate
- 653 Conversions

Google: Degree Online Creative
- **NCSU Online Degrees** 6.81% CTR
  NC State offers online degrees that fit your schedule. Get info!
  distance.ncsu.edu
- **Get your degree online** .83% CTR
  Online degrees from NC State that fit anyone’s life. Get info. distance.ncsu.edu

- **Degrees online at NCSU** .82% CTR
  Graduate online through NCSU Class in your spare time. distance.ncsu.edu

**MSN**

Top term for impressions: Degree Online
  o .23% Click Through Rate
  o 32 Conversions

**MSN: Degree Online Creative**

**NCSU Online Degrees** .23% CTR
Take control of your future and earn the degree you’ve always wanted. distance.ncsu.edu

**Get your degree online** .10% CTR
Online degrees from NC State that fit anyone's life. Get info! distance.ncsu.edu

Top term for clicks and conversions:

**Online Courses**
  o 1.76% Click Through Rate
  o 65 Conversions

**MSN: Online Courses Creative**

**Online courses at NCSU** 1.70% CTR
Accredited online courses that work with your schedule. Download info. distance.ncsu.edu

**Online courses at NCSU** 1.51% CTR
Take classes online on your own time. For more info. distance.ncsu.edu

**Accredited Online Courses** 1.46% CTR
Online courses from NC State to fit your needs. Get info today! distance.ncsu.edu
Banner Campaign Summary

- Banner Campaign Total Conversions: 1,574
- Banner Campaign Conversion Rate: 23%
- Search Campaign Total Conversions: 2,526
- Search Campaign Conversion Rate: 30%
- Total Conversions: 4,100

Distance Education Student Survey Data – Spring 2009

Questions: How did you hear about distance education at NC State?

Responses: N=535

<table>
<thead>
<tr>
<th>Method of hearing about Distance Education</th>
<th>Percentage of students using method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Advertising</td>
<td>24.49%</td>
</tr>
<tr>
<td>Advisor</td>
<td>15.70%</td>
</tr>
<tr>
<td>Friends or Family</td>
<td>11.21%</td>
</tr>
<tr>
<td>Other*</td>
<td>29.72%</td>
</tr>
</tbody>
</table>

*Other specified: brochure, flyers in student lounge, registration booklet, NCSU website, school system, U.S. News & World Report, NC Teach Program, course offering list, newsletters, RALC referral

MPD Projects FY 08/09

- DE08 - DE Web Banner
- DE08 - Dec/Jan Acquisition Campaign
- DE08 - Distance Education Bannerup
- DE08 - Fall Alumni Ad
- DE08 - July/August Acquisition Campaign
- DE08 - Media Site Graphics
- DE08 - Update DE Rack Card
- DE08 - Update Military Billboard Creative
- DE08 - Winter Alumni Ad
- DE08- Facebook Ads
o IN08 - DELTA Retreat
o IN08 - Summer Workshop Brochure
o IN08 - USDLA Award Display for Holliday Hall
o IN08- Print I Go to State Posters for GTC
o MK - 09 Workshop Brochure Design
o MK - Annual Report Cover
o MK - Copyright User Tools
o MK - DE Virtual Orientation
o MK - Faculty Services Brochure [PROPOSAL]
o MK - ISS Workshop Brochure [SUMM 09]
o MK - LPS/NCNG Flier
o MK - MediaSite DVD
o MK - PP315 Course Marketing Brochure
o MK - Spring Hope Billboard Creative
o MK - Summer Institute Branding
o MK08 - DE Landing Page Campaign
o MK08 - DELTA Demo Reel Update
o MK08 - DELTA Holiday Card
o MK08 - DELTA Open House
o MK08 - DELTA Web Banner
o MK08 - Fall Workshop Brochure and Banner Up
o MK08 - GTC Poverty Project (PPT)
o MK08 - IDEA grant marketing
o MK08 - Learn & Earn Branding
o MK08 - LITRE Expo
o MK08 - NC TEACH Poster/Flier Updates
o MK08 - OIT Expo Exhibit
o MK08 - Tom's Business Card Update
o MK08 - Update Holliday Hall Shelf
o MK08- Charlotte Adult & Community College Education Doctoral Cohort Materials
o MK08- NCSU/TUNCO Corporate Campaign
o MK08- Spring Alumni Ad
o MK08- Summer Alumni Ad
o MK - DE Website Redesign
o MK - DELTA Apparel
o MK - DELTA Tagline
o MK - DELTA Wire
o MK - Fall Workshop Brochure
o MK - ISS QuickTraining PPT
o MK - Photography
o MK - Staff Photos
Research

**DE Web site Redesign – Focus on the Future Initiative**

**Project Purpose and Description**

The purpose of the *Focus on the Future Career Changer* project was to assist prospective students in choosing among Distance Education (DE) learning options to optimize their future career prospects through enhanced skills or training for a new career. Technical research included the integration of Search Engine Optimization (SEO), Web site analytics and metrics to maximize the search capabilities of the new Web site and drive people to NCSU DE programs. The research results indicated that the Web site revision elevated the Web site to the top three rankings in the top three search engines over 80% of the time.

*Focus on the Future* was a DELTA-driven, DE student recruitment initiative that will assist prospective students in choosing a career path through NCSU Distance Education courses and programs. *Focus on the Future* provides our target audience; individuals displaced and out of work, with learning options to optimize their future career prospects through enhanced skills or training for a new career. The project consisted of many facets that resulted in a system that targets various demographics and funnels prospects to information and assistance needed to further their educational interests and future career needs. *Focus on the Future* included internal and external statewide partnerships with the NC Department of Commerce, NC Work Force Development, NC Libraries, NC Job Link Centers. The *Focus on the Future* project was developed within the proposed timeline and under budget by 50% because of the budget freeze.

**Project Scope**

The project scope included:

- A redesigned DE landing page and Web site consisting of a modified navigation and content production that is focused on end results and potential career opportunities.
- The site incorporates the features of several prominent sites as noted by the planning team and specified in the list of project requirements and specifications.
- Provide appropriate links to DE academic counseling services and career counselors that provide prospective students with the ability to explore programs of study based on personal circumstances and educational background.
- Provides direct links to departmental program and degree content for prospective students who are keenly aware of their interest and are ready to fully engage in higher education activities.
**Staff**

**Changes**

There have been no staff member changes this year.

**Professional Development and Activities**

Heather Barbour, MPD Administrative Support Specialist, completed her Project Management (PM) Certificate and is now pursuing a PM graduate degree from Western Carolina University, online.

**Awards**

MPD staff members received the following recognition and awards in FY 08/09:

- Kay Zimmerman was the president of the North Carolina Distance Learning Association (NCDLA) this year. Under Kay’s leadership, USDLA rated the NCDLA virtual conference as the best state conference for all USDLA state chapters. The NCDLA membership increased from 286 to 655 because of the NCDLA virtual conference that replaced the f2f conference. It is estimated that the state saved over $350K by ‘going virtual’ for the DL professional development. Conference statistics:
  - 655 registrations, K-20 Distance Educators
  - 49 sessions offered, 5 Second Life sessions, 4 national keynote speakers
  - Participation included: 1817 individual logins, for 49 sessions, 37 participants average per session (minus moderators)

**Diversity, Retention, and Staff Well-Being**

MPD has developed a marketing partnership with the NC State Graduate School. Dr. David Shafer, Assistant Dean of Outreach and Diversity, has approved the marketing partnership to include co-marketing campaigns and initiatives with DELTA MPD marketing. We have completed an assessment of existing marketing efforts, cross-referenced campaigns to eliminate duplication, evaluated marketing resources, and will develop a comprehensive marketing plan for NC State graduate education marketing. Brett Locklear, Graduate School Director of Marketing and Diversity Outreach, markets to diverse audiences at education fairs, through specific diversity programs (UNCF, Gates Foundation, etc.) and will co-market all DE graduate programs. DELTA is establishing the technical support for the marketing partnership to include initiative-specific recruitment Splash pages, backend-tracking systems, online prospective student data capture, and the use of existing online communications tools. The Graduate School reaches a very broad and diverse prospective student audience and DELTA has the marketing technical expertise to double graduate-school marketing (on campus or online) without increasing resources.

This year MPD has expanded the MPD teamwork relationships, and because of the expanded teamwork, project management responsibilities have increased. Heather Barbour assumed the project management responsibilities within her work plan. Heather is very gifted in project management and requested the opportunity to expand her project management responsibilities and also applied for the WCU Project
Management certificate. She expressed great satisfaction and has had success with the PM course of study. She is now enrolled in the WCU Project Management online graduate degree program and is planning to graduate in May 2010. This has added to Heather’s job satisfaction, contentment with the added responsibilities, and satisfaction with her future career opportunities.

**Concerns and Recommendations for the Future**

- Continued development and integration of the MPD to establish roles, responsibilities, processes and procedures.
- Continued management of all MPD projects on the Basecamp project management system, which provides up-to-date project status reports.
- Effectively identify and share resources with ISS and DE to create efficient personnel and materials resource distribution.
- Develop two strategic DE program-marketing partnerships, PRTM and GIS, which include the full MPD integrated team, establish measurable benchmarks and goals.
- Establish a measurable capability to identify and track the marketing campaign results that directly relate to student enrollment and coordinate the project with DE to identify enrollment trends.
- Develop and implement a marketing project management system partnership plan guide to share with partners to include SEO, metrics and analytics marketing strategies.
Finance and Business

Programs

*Shout Out program*

“Shout Out” is an internal program to DELTA that began in February of 2009. This program requires no monetary cost, but is rather a feel-good program. This program allows fellow coworkers/staff/supervisors the ability to recognize someone for a job well done, nice deed, etc. This program has boosted moral and has really taken off in DELTA. We have a cork board in the break-room that displays all of the Shout Outs and are viewable on the business office website. We are in the process of collaborating with other DELTA units to enhance the Shout Outs by having an electronic fill-able form easily accessible to all DELTA employees.

Research

*Revised telecommuting SOP and Agreement*

DELTA was tasked with re-drafting their Telecommuting SOP to promote general work efficiencies, to create an environmentally sensitive unit, reduce fuel consumption, and create a family-friendly workplace. Additionally, to ensure a successful business continuity plan, most DELTA employees can operate from home in case of an emergency, by way of telecommuting.

Staff

DELTA has experienced a turnover rate of less than 1% in FY 08/09.

Diversity, Retention, and Staff Well-Being

DELTA works closely with NCSU Human Resources and NCSU Office of Economic Opportunity to ensure compliance when hiring DELTA staff. Additionally, every effort is taken to advertise open positions in diverse trade magazines, newspapers and Web sites to draw a wide diversity of candidates to apply for our positions. In an effort to retain high performing employees that are satisfied with the DELTA working environment, we are developing an employee survey to determine why employees stay at DELTA. We will develop a retention plan based on these findings which defines areas that produce happy, motivated and empowered individuals. This resulting retention plan is aimed at promoting a
work environment which fosters personal and professional growth and promotes harmony and encouragement on all levels.