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## 1. INTRODUCTION

In the coming academic year, Information Services (IS) will enter its second decade as a successful combined organization of libraries, information and instructional technology dedicated to the support of the Connecticut College community. As in the past several years, the *Information Services Annual Plan 2006-2007* was developed by the staff of the department to unify the mission, goals and objectives of the Information Services department with the college's Strategic Plan, *Connecticut College 2011: Launching the Second Century.* The creation of the *IS Annual Plan* engages the staff and faculty in thinking beyond their daily responsibilities, to the broader purposes for IS efforts. The plan gives structure to planning for the future and helps make the connection between budget allocations and actions. Individual and departmental performance can be judged using the plan as well. Finally, the plan is meant to be flexible and thus can accommodate new college priorities and directions that may emerge during the course of an academic year.

The *Information Services Annual Plan* serves the following functions:

- To define the vision, mission and goals of the department
- To align Information Services activities and projects with the Connecticut College strategic plan
- To define specific objectives that guide the work of IS teams within each academic year
- To identify in the planning process emerging trends in library services, information technology, instructional technology, and other areas of college support that fall within the department's scope
- To establish an annual planning cycle that encourages staff to scan the broad environment affecting information services in higher education
- To provide a basis for budget planning and requests
- To provide milestones for the work of the department's teams and individual staff



# 2. INFORMATION SERVICES MISSION STATEMENT

# Mission:

Keeping you CONNected:

Partnering with the college community to provide innovative, reliable, and universal access to information resources in support of academic and administrative endeavors.

# Goals:

- 1. To ensure access to books, periodicals, and other information resources for learning, teaching, scholarship, and administration
- 2. To preserve and appropriately protect scholarly and administrative information and archival materials
- 3. To develop and promote academic and administrative information as a campus resource
- 4. To ensure a secure, robust, stable, and innovative technology infrastructure
- 5. To create a vigorous program of information literacy to prepare students for a lifetime of intellectual endeavor
- 6. To help faculty integrate technology into the curriculum to enhance student learning
- 7. To join with the college community in stimulating intellectual, social, and cultural growth
- 8. To create in partnership with the college community facilities that support learning, teaching, scholarship, and collaboration
- 9. To communicate effectively with the campus to foster community involvement in Information Services operations
- 10. To respond to the varied individual information needs of students, faculty, and staff
- 11. To promote the ethical and legal use of information resources
- 12. To recruit and retain outstanding Information Services staff and provide development opportunities to maintain quality services
- 13. To ensure effective management of Information Services as a campus resource

## 3. INFORMATION SERVICES VISION STATEMENT

Drafted April 2004; Revised May 2006

Information Services at Connecticut College will be a program that is student and faculty centered, supports the academic and administrative needs of the college, and sustains the research necessary for student and faculty scholarship. In the future, Information Services will continue to make the college community proud of its performance, management, and service-orientation.

Information Services shall continually seek to achieve its mission, "Keeping You CONNected: Partnering with the college community to provide innovative, reliable, and universal access to information resources in support of academic and administrative endeavors." In addition, Information Services will support the college's mission and goals creating an environment that enables students to put the liberal arts into action. Information Services follows an annual planning cycle that links mission to actions, serves as a summary for program assessment, and highlights future activities that may affect Information Services and its service to the college.

# **Partnerships**

Creating and sustaining partnerships is a key aspect of the Information Services future. Relationships between college academic and administrative departments and IS will mature and produce better services and products to support the college. There will be continued partnership with the Office of Administration for the implementation of the jointly developed Classroom Improvement Plan; with the Center for Teaching and Learning for faculty development activities such as the Tempel Summer Institute; with College Relations for a robust, stable, and well-designed Web presence; and the Career Enhancing Life Skills department to support and develop the outstanding ePortfolio product available to our students. The future will see greater cooperation between academic departments and IS to sponsor campus activities that enrich the intellectual environment at the college. Activities such as hosting speakers or performances, curating display presentations, providing a digital repository, and creating new digital publications will be a part of the IS program.

The CTW Consortium, a partnership of colleges including Connecticut College, Trinity College and Wesleyan University will grow in importance to IS and the college. IS will also create relationships with granting agencies, such as the Keel Foundation and the National Institute for Technology in the Liberal Arts (NITLE), funded by the Andrew W. Mellon Foundation, to create innovative programs and services. Partnerships within Information Services reflect the combined library/information technology organizational model the college employs. Librarians, instructional technology staff, Web support staff, Help Desk staff, and other areas will continue to work together on projects such as GIS, the Digital Commons, the DELI Project, and Information Literacy. The collaborations among IS staff will continue to ensure that high quality services and resources are available to the college community—and that those services are publicized effectively. Librarians and instructional technologists in particular will see a melding of key job responsibilities—librarians can help develop Web-based instructional programs and instructional technology professionals can play a more active role in the library liaison program.

### **Technical Infrastructure**

IS is committed to innovation; staff will offer innovative services and products, but in a manner to control risk and unnecessary cost. Certainly, Information Services in the future should provide reliable services. Networks will be stable with sufficient bandwidth and modern electronics to make the network as fast as students and faculty need them to be for a progressive academic environment. Networks will also be secure behind the latest technologies to protect the college and its community members from dangerous Internet activities. At the same time, the networks will be as open as possible—allowing students and faculty opportunities for experimentation and learning activities that are unbounded by limitations in the technical infrastructure. In fact all Information Services will offer unfettered access to information, whether in traditional bound print volumes, via the Internet, from digital databases, or whatever new medium may appear on the horizon. A commitment to open access does not mean that illegal or selfish activities are

condoned. The nature of the Internet means that responsible use of networked materials and wise decisions about network use will remain a key to users retaining the privilege of network access.

The residence hall network, as well as the general campus network, will be fast and reliable. Rooms will be wired to provide up to 1Gb of bandwidth to each student resident. In the future, as wireless technology improves and stabilizes, residence halls may join the common areas of the college, such as Crozier-Williams and the Harris Refectory, with access to wireless bandwidth. Wireless bandwidth may be provided from a third-party vendor such as Sprint, Inc. eliminating the need for the college to develop its own infrastructure. Classrooms and labs across the campus likewise will have network access necessary for research and scholarship. Internet2 will be available and other non-commodity Internet connections will be available as well.

Using resources over the college network will be an essential activity for every faculty, staff, and student in the college. Information Services will adopt new technologies as they become ready for stable deployment, e.g., wireless access, instant messaging, portable communications devices, and Voice-over-IP (VoIP). The applications that run on the network (Banner, CamelWeb and the public Web, email, WebCT, ePortfolio, etc.) will be essential to effective college operations and each will be maintained and continually improved. Use of Banner academic and administrative software in particular will be leveraged to improve college operations. Modern computing hardware, current-release software, and end-user resources (PCs/MACs, projectors, printers, etc.) to serve the college's academic and administrative functions will continue to be available. The IS Help Desk will be proactive in dealing with technical support issues, as well as a respected and trusted source of information and repair service related to computing and network services. Virtual, face-to-face, and outreach services to residence halls will all be a part of Help Desk operations. Help Desk services including technology training opportunities will be publicized effectively to students, faculty, and staff. Aspects of IS operations could be outsourced if economic and service parameters are met.

#### Staff

Information Services staff will be, most importantly, service-oriented. They will be knowledgeable, curious, helpful, friendly, challenging, team-oriented, reliable, ethical, and sufficient in number to support the needs of the students, faculty and staff of the college. The IS staff will support a pluralistic college society, its demographic makeup reflecting that value. The staff will be proud of their accomplishments and celebrate work done well. They will enjoy working in the IS department and in the college—and this sense of well-being and trust will be reflected in the interactions they have with students, faculty and staff. IS will provide sufficient resources to support the staff with continuing education and training, as well as repair, maintenance, and replacement technologies and materials as necessary for reliable, stable and creative services. Staff will be cross-trained where possible to support multiple service points. Staffing levels in the IS divisions will be at the average for staffing levels at our peer colleges and compensation will be competitive with our markets.

## **Facilities**

The libraries of the college, the Charles E. Shain Library and the Greer Music Library, will continue as integral, active community and information centers on campus—an information commons crossroads for students, faculty and staff doing research, using computing resources, attending programs, developing digital programming, consulting with IS staff, or simply reading a newspaper or sharing a conversation over a cup of coffee. The libraries will house resources, services, and staff that enhance a sense of comfort and community that builds the pluralistic society for which Connecticut College is known. The spaces will be flexible and will accommodate changing styles of learning as defined by students and faculty. The Shain Library will be renovated and expanded to provide an entrance that is both pleasing and functional, an expanded digital media creation area (including the Digital Curriculum Center moved from Blaustein), training and viewing services, small group study spaces, and a quality Special Collections and Archives space. Natural light will illuminate comfortable study spaces and gracious reading rooms on the upper floors. Effective artificial lighting will enhance the study and work areas. A cyber-café will attract college community members and encourage interdepartmental interactions—as

well as student-faculty-staff conversations. Service points will be as integrated as possible and located for ease of patron interaction. Locating staff near the resources they manage and on which they offer training is important. Both the Shain and Greer libraries will have inviting furnishings and comfortable surroundings for study, research and leisure. Both will have modern adaptive technologies for students with disabilities and special needs. The College Writing Center and the Center for Teaching and Learning might occupy spaces inside the library, creating the proximity for increased collaborations.

Other Information Services areas, such as the Computing Center in Bill Hall and the Language Lab and Digital Curriculum Center in Blaustein, will be comfortable, environmentally safe, and modern educational facilities and workspaces.

## **Collections and Access**

Library collections will be current, made up of the best of published information relevant to the college's curriculum, and be built based on faculty and student requests, as well as librarian and instructional technologist recommendations. The amount spent for library materials per student will equal the average spent at our peer liberal arts colleges. The collections will be maintained and budgets annually adjusted to reflect inflationary pressures. Agreements with our CTW partners, and perhaps other libraries, will produce Centers of Excellence in our collections through shared collection development and the elimination of collection duplication within the consortium—especially those available in digital format yet overall acquisitions budgets will not decrease. Although digital resources will increasingly be the standard for reference materials and serials, the libraries will continue to collect substantial numbers of print materials into the foreseeable future. The acquisition rate for print materials will level out and even decrease over the next several years; however, many materials important to the curriculum of the college we expect to be published only in print format. Access to digital collections of images and video and audio clips will increase as new and more effective technologies and digital services are introduced. IS will employ current finding aids and technological advances to link the user with appropriate library resources. Access will be available to college community members regardless of where they are in the world.

Special Collections and Archives at Connecticut College will continue to be a treasure house of primary research materials unique to the college. They give us distinction in the intellectual landscape. The importance of this area in Information Services will increase as new acquisitions are made and programs to integrate our resources into the curriculum proceed. Environmental controls will be in place to preserve these resources, and indeed all collections and resources, at the college. Efforts to digitize materials for preservation, for external access, and as part of new intellectual products will be a major part of this area's activities in the future. College records management will be a shared responsibility although Information Services will provide leadership in policy development. Digital archives and off-site archival storage will figure prominently in the college's records management program.

## **Information Literacy**

The importance of information literacy—teaching students how to find, evaluate and use information regardless of format—will increase over time. The program at Connecticut College will become integrated into the curriculum, especially through the General Education courses, and be recognized for its quality in the future. The ubiquity of the Web for information access will not decrease, but valuable resources will increasingly be accessible through paid subscriptions or institutional licensing agreements. Consequently, effective search techniques—including consulting with a librarian—will be increasingly important. That consultation may take place in person at a reference desk, but could also be virtual via video over IP or through email or IM queries. Indeed, reference librarians may begin to operate by appointment with student and faculty researchers, replaced during non-peak hours at the Reference Desk by trained student or staff paraprofessionals. The librarians' role as "teacher" and the partnerships they will build with classroom faculty will increase and be very important support for student learning.

\* \* \* \* \* \* \* \* \*

In summary, Information Services will support the academic and administrative programs of the college in a manner that will help make the college successful in its mission of providing a quality liberal arts education environment. We will continually adapt our services to meet the needs of the institution and regularly assess our performance to inform our actions.

# 4. MAJOR ACCOMPLISHMENTS: ACADEMIC YEAR 2005-06

# Enhance library and technology support for students with special needs

Work with the Office of Student Disabilities Services, the International Student Adviser, the Office of the Dean of Freshmen, Unity House, other relevant personnel and student organizations to identify and implement services that can assist students with disabilities, students of color, international students, students from lower socio-economic backgrounds, or first generation college students. Focus on how IS can improve recruitment, retention, and academic achievement of these students.

Seven members of the Information Services staff came together as the Diversity Outreach Committee in the fall semester to begin their work. In early November, the Committee held a half-day meeting with an invited group of faculty, staff and students from the campus community to provide their insight and recommendations on how they felt Information Services might improve their resources and services to the underrepresented members of the campus community. The work of this Advisory Committee and subsequent interviews with individual staff on campus providing specific service to these students has resulted in a report and recommendations for immediate and future action. Initial work included the development of a planned diversity Web site, an expansion of the resources in the libraries' assistive technology area, and the enhancement of research and instruction services to provide focused support for underrepresented students.

# Develop and implement an institutional digital repository

Develop an institutional repository that will preserve and provide access to the intellectual achievements of the students and faculty of the college produced in digital format, e.g. honors papers, masters theses, faculty publications, conference proceedings, etc. Begin a pilot project to test feasibility, with the goal of accepting senior honors papers electronically into a repository by May 2006.

In August 2005 a pilot project was begun to create a digital repository for Connecticut College using software developed by ProQuest's Digital Commons. This repository, called Digital Commons @ Connecticut College, is now a successful ongoing project with over 40 items. Senior honors papers of the class of 2006 will be gathered and then published in the Digital Commons. Research is ongoing to determine if better, more inclusive, digital repository opportunities exist in the marketplace.

### Recognize academic excellence

Develop an Academic Excellence Hall of Fame for the college, located in the Shain Library. Collaborate with appropriate offices and faculty to determine criteria for inclusion, timeline for implementation, appropriate recognitions, and other policy and procedural issues to initiate such a program. Strategize how such a program could be used for advancement and recruitment purposes. Create a prize to recognize excellence in Honors Study research.

"Academic Excellence at Connecticut College" will be unveiled at a reception during the May 2006 Board of Trustees meeting. The Ames Prize, Nancy Batson Nisbet Rash Faculty Research Award, John S. King Faculty Teaching Award, Phi Beta Kappa, and Winthrop Scholar recipients are recognized as are the individuals for whom these awards are named. A proposal for an IS Honors Study research prize and an alumni academic achievement award are under consideration.

### INFORMATION RESOURCES TEAM

# Undertake a major stack management project

Complete the withdrawal of JSTOR volumes as we finalize membership in the Five-College Archival Storage program. Withdraw long runs of Chemical Abstracts, Biological Abstracts, and other reference sets in print form. Review government documents and withdraw those where electronic access is available. Compact the government documents and move the documents stored on the third floor to the lower level. Shift the collection to provide growth for at least five years.

During the summer of '05 staff completed the withdrawal of JSTOR volumes, distributed some withdrawn sets to faculty and set aside volumes for transport to the Five College Depository. Print copies of major reference sets were withdrawn to gain space on the third floor for expansion. Staff completed a major shift of the collection on the third floor to allow for growth of the monograph collection. Bound journals on the lower level were shifted in preparation for an expansion of the Blue Camel Café in summer '06.

# Pursue a shared collection development and acquisitions program with Wesleyan and Trinity

Convene a CTW group to establish formal collection agreements such as those developed by the Ohio Libraries Consortium and other groups. Use comparative collection analysis products available from OCLC and Library Dynamics as appropriate to inform this effort.

The three collection development officers of the CTW Consortium have been meeting as a group to develop a pilot program for FY07. The program will be designed to prevent unwanted duplication of costly and specialized materials within the consortium. The group has forwarded a proposal to YBP, the major book vendor for all three institutions, and has received preliminary word that the proposal is feasible. The efforts to implement an ongoing system for shared collection development among the CTW colleges will be ongoing.

## Expand public and group study spaces

Construct a Leisure Reading Room on the lower level of the Shain Library with comfortable seating and with shelving to house a new leisure reading collection, a selection of audio books, and current issues of popular magazines. Expand the Blue Camel Café as part of the stack management initiative outlined above, if possible.

A new leisure reading area was created over the summer of 2005 with new and comfortable furniture and a bookcase to house a collection of popular reading materials and audio books. We have entered into an agreement with two vendors to provide a rental collection for the area. In addition, we have initiated a new rental program of feature films for leisure viewing.

Over the year we have completed preparations for the expansion of the Blue Camel Café on the lower level. Over the summer of 2006 we will add four new booths with network hookups to facilitate group work and four individual workstations.

## Improve online access to information resources

Extract print holdings from Voyager and load them into the Serials Solutions database to create a journal locator combining print and electronic holdings in one alphabetical list. Continue implementation of online serials check-in. Review and update serial holdings in Voyager and the Union List of Serials. Implement MetaLib or a comparable product to enable users to search multiple databases, including the CTW catalog, simultaneously.

We have completed implementation of online serials check-in making it possible to check in the Voyager catalog for the latest issues received in the library. We added the federated searching product Central Search to make it possible to search multiple databases simultaneously.

## Educate the college community on emerging developments in scholarly communication

Prepare a Web site with important documents and links to major Web sites addressing such topics as institutional archives and open access publishing, including a list of peer reviewed open access journals. Publicize our membership in SPARC to the college community and inform faculty about opportunities for publishing in open access journals such as those published by BioMed Central and BioOne. Promote alternative forms of scholarly publishing within the campus community. Investigate bringing a major speaker to campus, or hosting a conference, to bring awareness of recent trends in scholarly communication to the campus community.

We added a Web site on Open Access Publishing/Issues in Scholarly Communication as a new resource for faculty. The Electronic Access/Serials Librarian presented these issues to the Information Services Committee. In support of open access initiatives we became members of SPARC and BioMed Central. This project is ongoing.

#### INSTRUCTIONAL TECHNOLOGY TEAM

## Consolidate support for instructional computer labs, including assistive technologies

Develop a set of services for the acquisition and use of instructional software and hardware in computer labs supporting teaching and research. Investigate, acquire, install, and document availability of academic software and hardware for courses, computer labs, and for distribution through the campus software library. Ensure that resources are current and functional. Provide support for students with disabilities in using technology in their coursework.

We realigned current position responsibilities and added a new position through an above current level request, to provide a stronger set of tools for supporting the use of integration of technology in the curriculum. The redesigned positions allow stronger support for graphics and instructional design as well as adding support for computer labs. Also support was increased for students with disabilities in using technology in their coursework.

## Implement the next phase of classroom renovations

Provide support for the renovation of classrooms according to the Connecticut College Classroom Improvement Plan. Serve as staff to the Classroom Improvement Committee, participate in the planning and design of the classrooms, and work with Advancement to raise funding for the rooms. Provide instruction to faculty and students to ensure awareness of the rich array of academic resources in the rooms.

Worked with Advancement to write grant proposals, host donor visits, and create publications for classroom renovations, resulting in a \$200,000 grant from the Alden Trust Foundation for Oliva Hall and funding from alumni and trustees for four classrooms to be renovated during summer 2006. Hosted the University of Richmond's classroom renovation team in their quest for learning how a successful renovation program works and its outcomes.

## Create a videoconferencing facility for course use

Enhance a seminar room to create appropriate conditions for videoconferencing. Install networking, hardware, software, and specialized lighting and acoustics, to enable classes held in the seminar room to videoconference with similar facilities at each of our two consortial institutions, Trinity College and Wesleyan University, for Computer Science courses. Research sustainable technologies, delivery methods, support, and environmental conditions for the videoconferencing of small classes. The courses will serve as models for other courses taught at the college or brought to the college through videoconferencing.

We enhanced a seminar room to create appropriate conditions for videoconferencing. Installed networking, hardware, software, and specialized lighting and acoustics, to enable classes held in the seminar room to videoconference with similar facilities at each of our two consortial

institutions, Trinity College and Wesleyan University, for Computer Science courses. Successfully delivered our first course to students at Trinity College and Connecticut College in Spring 2006.

# Implement the campus-wide WebCT and Banner interface

Expand the current WebCT/Banner integration pilot to allow real-time interaction between the Banner Student System and WebCT for all courses. Provide instruction and support for faculty and students in the transition to the Banner-linked WebCT.

We expanded the integration of these systems to allow real-time interaction between the Banner student system and WebCT for all courses. Provided instruction for faculty using the system. Installed a new version of WebCT and piloted the integration of this WebCT with the Banner student system, for use starting in fall 2006 courses.

#### Create mobile wireless tablet PC labs

Install and implement a portable lab consisting of 20 wireless tablet PCs on a cart and a portable projection system in a Genetics course and a Molecular Biology course. Partner with faculty to develop and achieve a plan for effectively using this new technology, providing training and support, and assessing how the PCs enhanced the curriculum. The lab will serve as a model for the use of both tablet PCs and of portable computer labs in other courses at the college.

Through a grant from Hewlett-Packard, we installed and implemented a portable lab consisting of 20 wireless tablet PCs on a cart and a portable projection system in a Molecular Biology course and a Genetics course. The tablets were also used in a student mentoring program for biological sciences. Increased our knowledge of how tablet PCs can be used in the curriculum.

### **RESEARCH SUPPORT & INSTRUCTION TEAM**

# Expand the Mellon-funded information literacy initiative to include the implementation of discipline-specific competencies and skills at the departmental level

Work with academic departments to identify discipline-specific information literacy needs and establish a framework for the integration of these skills and competencies across the four-year curriculum. Plan and implement dissemination of CTW Project outcomes during this final year of the project and make recommendations for the future.

Two departmental projects are in progress for FY06, Human Development and Gender and Women's Studies. The initial phase of these projects have focused on course instruction and are being continued as the information literacy skills and competencies specific to the core courses and electives are determined. In addition, two individual course projects have been supported this year: FYS 106 Spanish Culture in Film and ANT 319 Medical Anthropology. CTW faculty and staff will work together to disseminate the projects' activities. An end-of-grant event is scheduled for early June, as well as a thorough revision of the project's Web site.

# Expand the collaborative program with the Writing Center to enhance use of Information Services and Writing Center resources

Work with the Writing Center to identify additional opportunities for collaboration that will link activities in the Writing Center with Information Services programs, resources, and services. Provide research instruction and support for the Writing Center's peer tutors/consultants program.

Collaborative work has continued with the Writing Center's temporary director to provide support for students participating in Honors Study research. Plans for further collaboration are being redirected to FY07.

# **Expand the support program for Honors Study students**

Build on the successful pilot program to provide bibliographic research and citation skills tailored for Honors Study students. Expand the program to both semesters, targeting students returning from Study Away programs and senior seminar participants.

Sessions in support of students engaged in Honors Study has continued and expanded to include sessions in both semesters. Modifications to the original approach were made and additions were made to the original content to add value for the participants. Individual sessions with a subject specialist were arranged for interested participants to provide more in depth guidance for their research.

## SPECIAL COLLECTIONS AND COLLEGE ARCHIVES

## Implement records management plan

Implement a Connecticut College records management plan. The draft *Connecticut College Archives & Records Management Program Manual*, completed in AY05, incorporates current legal standards and best practices for colleges and universities and will be reviewed by campus constituencies and legal counsel. This major initiative will require the cooperation of all campus offices.

A second draft of the <u>Connecticut College Archives & Records Management Program Manual</u> has been written and is currently undergoing revision prior to review by campus constituencies and legal counsel. Implementation is expected during the 2006-07 academic year.

# Implement off-site storage for college records

Implement plan to transfer many college records in paper format to an offsite storage facility as allowed by the records management plan. Such a facility will provide secure storage for college records that need to be retained indefinitely and for materials that must be retained for fixed periods of time and then destroyed. Moving these documents to off-site storage will free space in campus offices and contribute to the successful implementation of the records management plan.

The first major transfer of college records to the Iron Mountain storage facility was accomplished in December 2005. As a result of this process, an economics computer lab is being installed in the cleared space in the basement of Becker House.

# Continue to develop and provide a wide range of exhibits and presentations that increase the intellectual quality of campus life

Using exhibits, lectures, and other presentations, Special Collections and Archives will continue to provide quality programming that contributes to the intellectual life on campus.

Several exhibitions and lectures were sponsored each semester by the library and presented to the campus community. These highlighted the work and accomplishments of students, faculty and alumni, as well as featuring the work of outside speakers and artists.

# **Redesign Special Collections and Archives Web site**

To highlight the resources and programs of the department, and offer greater user interaction, the Special Collections and Archives Web site will be redesigned. Subsequent assessment of the new design will be used to modify the site as necessary for greatest functionality and appearance.

This project is not yet complete but remains an objective of the department.

## **TECHNICAL SUPPORT TEAM**

## Improve security on the academic network

Install a registration system on the academic network to scan-and-block network access by computers with viruses, worms, out-of-date anti-virus software or Microsoft patches. Install Cisco switches in selected academic buildings for fast response to virus/worm infestations and hacker attacks. Design and implement a separate, switched, fire-walled network for the college's academic servers. Implement the information security orientation program now required of all faculty and staff. This overview will help minimize the risk of having valuable and sensitive information on home or college-owned computers stolen or lost. Create an employee Information Security Guidelines brochure.

Cisco Switches were installed in the remaining academic buildings that had older electronics to provide more manageability and security. Cisco Clean Access device was installed into the academic network during the spring semester. (It has been operational on the student network for over a year.) Clean Access is currently set to monitor activity and is available to control any computer virus or worm. Academic network implementation will take place during the fall 2006.

Following recommendations from the IGX Global information security study, college servers that are accessible via the Internet are now behind a separate firewall module for additional security. This new network design creates a "DMZ" which creates a separate VLAN that is isolated from the network by a firewall. This firewall will be improved in FY07.

The faculty and staff security awareness program was implemented in the fall semester. To date 13 classes have been held with 154 people attending, about one third of the eligible population. This program will continue in the future and all new faculty and staff will be required to participate. A policy to require new faculty and staff to attend these sessions was approved in May.

Information Services has published a number of computer security articles in multiple campus venues including the Source, the Voice, the Daily Contact, Inside Information, and the IS Handbooks for Students and for faculty. IS will design and distribute a computer security brochure to all incoming and returning students this summer and fall.

# Improve networking in academic and common areas

Upgrade data wiring and electronics in selected academic buildings to improve network speed, reliability, and security. Expand and improve wireless computing capacity by installing additional wireless access points in academic and administrative buildings and common areas, including exterior locations where students gather to study. Promote availability of wireless access for retention and recruitment.

Winthrop Hall, Cummings Art Center, New London Hall, Blaustein Humanities Center, Shain Library, and Crozier Williams Student Center underwent a major data cabling upgrade to bring their wiring to current technical standards. This has greatly improved network performance and eliminated almost all help desk calls about networking in those buildings.

Twenty-six additional wireless access points were installed in selected classrooms and common areas during the academic year. A number of the wireless access points were positioned to provide interior coverage as well as to include outside locations where students congregate in good weather. The locations of wireless "hot spots" were promoted by table tents in some locations and were featured in a number of college publications, as well as on CamelWeb.

## Provide improved and expanded services to alumni

Provide a Connecticut College email address for life to all alumni. Establish an email forwarding service that creates a seamless way for each student to move from the college environment to the alumni environment. Develop and implement an Alumni CamelWeb including single sign-on

for access to CamelWeb for Alumni, e-Portfolio, class news, an alumni directory, and selected campus CamelWeb features.

The development of the alumni on-line community, which will provide the interface for email forwarding and many other services for alumni, is in progress and proceeding. The initial goal was to launch the community in May 2006. However, IS, Alumni Relations and Advancement decided that the community should roll out with the new public Web site design scheduled for release in January 2007. The Alumni Community will have the same look and feel as the newly designed Web site so it made sense to delay the roll-out to coincide with the rest of the site.

## Improve CamelWeb and e-Portfolio

Develop and release a major upgrade to the college e-Portfolio and CamelWeb products, built on sustainable programming practices, providing improved functionality and easier navigation to all campus users. Increase the ability of e-Portfolio and CamelWeb to interface with other software programs by employing more open standards conventions. Add new features and content to CamelWeb to increase its usefulness.

CamelWeb was upgraded and redesigned throughout the summer months of 2005. The launch was successful and the new CamelWeb design was ready and tested well before students arrived back to campus. Bugs or problems were discovered and corrected before the end of August. The redesigned e-Portfolio product was launched as part of the new CamelWeb and has received excellent reviews by those that use e-Portfolio regularly. The presentation portfolio portion is still in progress and will be released in the fall of 2006. Increased administrative functionality will be further developed in spring and summer of 2006. Open standard conventions have been slowly implemented and continue to be implemented in CamelWeb and e-Portfolio.

## **ICONN PROJECT TEAM**

## **Proceed with Phase II of the iConn Project**

Install and implement the Banner "Self Service" products to provide all faculty, students, and staff Web access to personal information, such as benefits, grades, and accounts due. Plan, install, and test the Banner 7.0 upgrade as well as a major Oracle software upgrade. Install and implement the SCT Workflow product to assist in streamlining business processes. Research the use of datamarts and other third-party tools to improve reporting. Research and implement, where appropriate, automated methods of integrating third party information systems with Banner, including the new events management software (EMS) and physical plant software (TMA). Provide support and training for Physical Plant's Palm devices that interface with TMA. Review and revise policies and procedures for network storage of college-related files, excluding instructional materials. Implement single sign-on for access to CamelWeb and Banner self-service products.

In January 2006 the AIS team rolled out the first phase of Banner "Self Service" allowing faculty, students and staff Web access to specific Banner information. In accomplishing the roll out of Self Service, the IS team was also successful in implementing a single sign-on access to CamelWeb. Ultimately users will have the capability to use their network ID and password to gain access to Self Service. Web Time Entry was the first module available through Self Service, providing student employees on-line capability to submit payroll timesheet information. Through Self Service faculty, staff and students now have the ability to review their personal information and students and faculty are able to view grades, their class registration information, and search the college catalog and term course schedule. Work continued on the development of datamarts to enhance reporting functions through Banner and the third party reporting software, WebFOCUS. Throughout the academic year 13 custom reporting tables were built, by the AIS staff, to support the reporting needs of individual functional offices across campus. In the Summer of 2005 we successfully completed the installation, training and implementation of both the EMS and TMA systems. Fall 2005 provided an opportunity to successfully load the term course

schedule information from the Banner system into EMS for all scheduled classes, thus providing the Events Office with greater information on space utilization throughout campus. Under the direction of the IS team, the campus community began to plan for the Banner 7.x upgrade, to be live in October 2006.

Due to the lack of funding and priority, the decision to implement the Physical Plant Palm devices has been put on hold. Also, the SCT Workflow product was made to postpone the implementation of this project and use IS resources more efficiently in other areas, such as the highly successful implementation of Self Service.

## 5. MAJOR OBJECTIVES: ACADEMIC YEAR 2006-07

# Continue the development and implementation of Information Service's Diversity Outreach Committee's work in providing focused resources and services for underrepresented students

Continue work with the campus community to implement resources and services that can assist underrepresented individuals in utilizing the resources of Information Services.

### Communicate

- Develop and implement an ongoing publicity plan for creating greater awareness of the
  existing resources and services available to the campus community that support diversity
  and the needs of underrepresented students.
- Develop and maintain a Web site for the IS Diversity Outreach Program.
- Work with Unity House to provide an introduction to library and technology resources for the Dean of Freshmen's early orientation programs, Genesis and Odyssey.

#### Educate

- Provide diversity awareness training for IS staff as a means for improving cross-cultural communications and interactions in the workplace.
- Collaborate with the Information Resources team to develop library displays, supporting reading lists, and subject guides relevant to topics relating to diversity.
- Collaborate with the Special Collections librarian to identify opportunities for speakers and exhibits that incorporate diversity.
- Establish a liaison program with the Office of Disabilities to identify and support students with physical and/or learning disabilities.

#### Celebrate

• Work with the Special Projects Coordinator to identify opportunities for IS to sponsor events and programs that can incorporate diversity and build community.

## Supports Strategic Plan Initiative:

- 1.1.1 Bolster and support the key elements that comprise students' educational pathways, beginning with traditional classroom work and advising, and integrating interdisciplinary studies, internships, athletics, OVCS, and other student activities.
- 2.2 Student quality, access, and programs. Improve the quality and diversity of students through excellent academic and residential programs and through assured access and equity. This will maximize student experiences and make the College the first choice of more and more students.
- 3.1.4 Consistently reflect the College's strong commitment to a pluralistic community and its current reality in communications of all types.

# Enhance the Web presence of Information Services through the redesign of the Information Services Web site

Provide a more service oriented approach to information access through the redesign of the Information Services Web site. Facilitate greater awareness of available resources, improve functionality, update appearance and generally enhance the Web presence of the department.

## Supports Strategic Plan Initiative:

3.2.1 Redesign the College Web site to build dynamic relationships with all constituencies, including prospective and current students and parents, alumni, faculty, trustees and the public.

## Design and implement the Digital Enhanced Learning Initiative (DELI)

Develop and implement a pilot program that explores how student-centered digital technologies can enhance student learning. The program will focus on freshman seminars and then follow through students' academic careers at Conn. IS will provide the faculty member and each student in four selected freshman seminar courses an iPod or a digital camera, based on the faculty member's proposal to use technology to enhance a course. Each course will be supported with a

strong instruction, support and assessment component, involving multiple areas of IS, beginning with a two-day Advanced Tempel Institute for the faculty.

1.2.5. Support faculty initiatives to revitalize and craft diverse teaching approaches, and support the development of new curricular opportunities and offerings.

## **Improve Help Desk Operations**

Review the current help desk operation to assess strengths and weaknesses and make recommendations for service improvements. Review peer-college staff organization and staffing levels for student help desk and faculty/staff help desk support and compare the other college's structure to our structure. Review and update the help desk Web site and printed materials. Activate and promote the Web-based service request system for the Help Desk and the "network status" telephone operation. Review and revise the help desk student worker training procedure as necessary.

# Supports Strategic Plan Initiative:

3.4.1 Develop excellent programming for and communications with alumni – including events, reunions, publications, Web presence, and personal contacts – to build mutual support: the College will aid alumni in their continuing process of education and engagement, and alumni will be guarantors of the College's reputation and financial successes.

4.4.3 Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

# Enhance collection and control of digital images for ease of use and archival purposes.

Lead campus-wide planning effort to determine best options for collecting, accessing, and archiving digital images. Implement solution in collaboration of other college stakeholders.

## Supports Strategic Plan Initiative:

4.4.3 Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations

### INFORMATION RESOURCES TEAM

Institute a formal collaborative collection development program with Wesleyan and Trinity Undertake a pilot program to eliminate the duplication of costly scholarly monographs within the consortium. Develop a CTW consortial profile to identify academic titles to be considered for purchase by one consortial library only. Work with our major book vendor to implement the plan using the GOBI online ordering system.

Review selected portions of the Dewey Collection using the OCLC Collection Analysis Project. Compare older holdings with those at Trinity and Wesleyan and develop a list for withdrawal along with a list of candidates for consortial storage. Investigate a consortial storage program using the Nelinet storage facility.

# Supports Strategic Plan Initiative:

5.3 Efficient use of resources. Create ongoing and agreed-upon processes for programmatic reviews.

# Expand the Blue Camel Café to provide additional public space and new group study spaces with network connectivity

Dismantle shelving in the targeted area on the lower level of Shain Library. Construct four new group study/café table areas in the vacated space. Install network connections and an oversized monitor in each area for the use of student groups working together on projects. Add four additional easy-access workstations on counters. Decorate with area rugs and photographs.

# Supports Strategic Plan Initiative:

- 1.2.2 Create new social and community opportunities for faculty, students, and staff through course-dinner funds and increased involvement of faculty and staff in residence halls.
- 2.2.1 Maximize student experiences on campus through a set of initiatives than enhance faculty-student engagement, and through improved facilities, alleviation of enrollment pressures on residential spaces and curricular offerings, and the smooth articulation of residential programs and curricular offerings.
- 4.2.2 Renovate and expand Shain Library to create a modern library and information commons that will serve as an attractive and vibrant intellectual center in support of research, scholarship, and campus life.

# Improve access to information resources through enhanced publicity programs and an expanded Web presence

Implement and publicize a "New Book List" on Voyager and feature the list on the library home page. Publicize new electronic resources on the home page as they become available. Identify space on the main floor for themed book displays. Review the location of the New Book Shelf and try to relocate it to a more prominent spot. Expand the selection of scholarly materials displayed on the New Book Shelf. Create a brochure publicizing the New Book List and Area and the Leisure Reading options for students.

# Supports Strategic Plan Initiative:

- 1. Educational program: Build an innovative, intellectually rigorous, comprehensive approach to education that promotes life-long learning, creativity, critical thinking, and civic action.
- 4.2.2 Renovate and expand Shain Library to create a modern library and information commons that will serve as an attractive and vibrant intellectual center in support of research, scholarship, and campus life.

# Continue the ongoing program of stack management to maximize building usage until a renovation can be undertaken

Continue with the withdrawal of bound JSTOR volumes as they become available electronically. Begin an ongoing project of reading the stacks to maintain proper order of books on the shelves. If funding becomes available, begin the installation of compact shelving on the lower level and identify logical collections to be shelved there.

## Supports Strategic Plan Initiative:

4.2.2 Renovate and expand Shain Library to create a modern library and information commons that will serve as an attractive and vibrant intellectual center in support of research, scholarship, and campus life.

## Improve aesthetics and directional signs in the Shain Library building

Undertake a coordinated program to create new signage on all floors of Shain Library. Develop a unified graphics scheme for use throughout the building. Reposition author photographs on the lower level and review wall decorations throughout the building.

# Supports Strategic Plan Initiative:

4.2.2 Renovate and expand Shain Library to create a modern library and information commons that will serve as an attractive and vibrant intellectual center in support of research, scholarship, and campus life.

### Develop a new journal locator combining print and electronic holdings into one list

Extract print holdings from Voyager and load them into the Serials Solutions database to create a journal locator combining print and electronic holdings in one alphabetical list to simplify the process of locating journal articles.

# Supports Strategic Plan Initiative:

1.1.1 Bolster and support the key elements that comprise students' educational pathways.

## **INSTRUCTIONAL TECHNOLOGY TEAM**

# Create a plan for increasing services for language and culture learning

Develop and implement a plan to improve the resources and services delivered both within and outside the Language Lab. The resources will include additional international news and popular cable TV programming for use in language and culture learning. Participate in the Internationalization Caucus to plan the Connecticut College International Cultural Commons.

- 1.1.1 Bolster and support the key elements that comprise students' educational pathways, beginning with traditional classroom work and advising, and integrating interdisciplinary studies, internships, athletics, OVCS, and other student activities.
- 1.1.2. Recognize the Centers as models of new intellectual pathways—both in the curriculum and in the opportunities they provide for civic, environmental, technological, and international engagement.
- 1.2.5. Support faculty initiatives to revitalize and craft diverse teaching approaches, and support the development of new curricular opportunities and offerings.
- 2.2.1 Maximize student experiences on campus through a set of initiatives that enhance faculty—student engagement, and through improved facilities, alleviation of enrollment pressures on residential spaces and curricular offerings, and the smooth articulation of residential programs and curricular offerings.
- 4.4.3. Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

# Continue to improve support for the integration of technology into the curriculum

Deliver the 7<sup>th</sup> annual Tempel Summer Institute for faculty, using the new release of WebCT. Provide Advanced Tempel Institutes, with one focusing on the use of student-centered technologies (see DELI program description above) to enhance the curriculum and others on converting to WebCT 6. Introduce Internet 2 resources for use in teaching and research. Seek ways to improve support for using technology within the classroom.

- 1.2.5. Support faculty initiatives to revitalize and craft diverse teaching approaches, and support the development of new curricular opportunities and offerings.
- 4.4.3. Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

### Plan and promote the use of I2-based resources into teaching and research

Several classrooms will be linked to the Internet 2 by the college's recent connection to the I2 network. Instructional technologists will collaborate with faculty to explore how databases, videos, and other assets can enrich classroom and research experiences.

- 1.2.5. Support faculty initiatives to revitalize and craft diverse teaching approaches, and support the development of new curricular opportunities and offerings.
- 4.4.3. Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

# Improve WebCT, the course management system

Upgrade WebCT, the campus CMS, to version 6 to provide additional resources for faculty and student use. Version 6, requiring separate servers for the application and for the database, provides an improved user interface, new features for courses with multiple faculty, and updates in applications and file management. Provide brown bag lunches, course conversion Advanced Temple Institutes, and support for faculty.

1.2.5. Support faculty initiatives to revitalize and craft diverse teaching approaches, and support the development of new curricular opportunities and offerings.

# Continue renovations to classrooms through the Classroom Improvement Plan

Support the Classroom Improvement Plan across the scope of planning and implementation work, including collaborating with Advancement in fund raising, grant proposal writing, documentation, and meeting with potential donors. The support also includes working with the architects in designs, media specifications, publications and serving as the liaison to the faculty and to staff to the Classroom Improvement Committee.

- 4.1.2. Renovate classrooms into modern, comfortable, and flexible teaching/learning spaces as proposed in the 2004 Classroom Improvement Plan.
- 4.4.3. Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

# Expand the use of videoconferencing resources

Design and implement a plan to extend the use of our new videoconferencing facilities to courses across the curriculum and other campus uses.

- 1.2.5. Support faculty initiatives to revitalize and craft diverse teaching approaches, and support the development of new curricular opportunities and offerings.
- 4.4.3. Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

## Create a role of Curator of Art Objects

Create and assign the role of curator to a staff member who will document and track the growing collection of art objects given to the college by alumni. The curator would identify and record metadata (including date, artist, location) on each piece of art and maintain a database of the information. The database, which will include a digital image of each piece of art, will be available through the Web for class use and for the college community.

4.4.3. Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

## RESEARCH SUPPORT AND INSTRUCTION TEAM

Implement a plan for the continued integration of Information Literacy into the curriculum Identify alternative approaches for reaching first-year students and continue support for the implementation of discipline-specific competencies and skills at the departmental level. Collaborate with offices and services on campus to increase visibility and access to library services for first-year students. Continue to work with academic departments and individual faculty members to identify discipline-specific information literacy skills and establish a framework for the integration of these skills and competencies across the four-year curriculum.

# Supports Strategic Plan Initiative:

- 1.1.1 Bolster and support the key elements that comprise students' educational pathways, beginning with traditional classroom work and advising, and integrating interdisciplinary studies, internships, athletics, OVCS, and other student activities.
- 1.1.3 Refine and implement the College's new plan for General Education, including first year seminars, new distribution requirements, and other features that may emerge to form a foundation for the new educational pathways.
- 1.2.5 Support faculty initiatives to revitalize and craft diverse teaching approaches, and support the development of new curricular opportunities and offerings.

# Assess the effectiveness of reference resources and services, develop, and implement a plan for redesign to better meet the needs of the campus community

Use quantitative and qualitative analysis of current reference desk service and personalized reference service to determine the effectiveness and feasibility of our current approach. Identify and incorporate new technologies in the provision of reference and instruction services, to include Instant Messaging/Chat reference, 24/7 reference, roving reference, and other technologies. Develop and implement a long term plan for the redesign of existing approaches to reference services.

## Supports Strategic Plan Initiative:

1.1.1 Bolster and support the key elements that comprise students' educational pathways, beginning with traditional classroom work and advising, and integrating interdisciplinary studies, internships, athletics, OVCS, and other student activities.

# Expand the collaborative program with the Writing Center to enhance use of Library and Writing Center resources

Work with the Writing Center to identify additional opportunities for collaboration that will link activities in the Writing Center with Library programs, resources and services. Provide research instruction and support for the Writing Center's peer-to-peer tutors/consultants program.

# Supports Strategic Plan Initiative:

1.1.1 Bolster and support the key elements that comprise students' educational pathways, beginning with traditional classroom work and advising, and integrating interdisciplinary studies, internships, athletics, OVCS, and other student activities.

# Promote the awareness and use of federated searching through the expanded access to Central Search

Increase the awareness and use of the Central Search federated searching product through increased training for the campus community and the provision of additional access points on departmental home pages and library subject guides.

# Supports Strategic Plan Initiative:

1.1.1 Bolster and support the key elements that comprise students' educational pathways, beginning with traditional classroom work and advising, and integrating interdisciplinary studies, internships, athletics, OVCS, and other student activities.

# Continue the Greer Music Library's collaborative projects for digitizing historical sheet music (pre-1923) collection and the music department's recital tapes

Collaborate with the College Archivist and Special Collections Librarian to determine options for continuing the digitization of historical sheet music (pre-1923) and the archiving of the music department's recital tapes.

## Supports Strategic Plan Initiative:

1.1.1 Bolster and support the key elements that comprise students' educational pathways, beginning with traditional classroom work and advising, and integrating interdisciplinary studies, internships, athletics, OVCS, and other student activities.

## Create a Greer Music Library 101 tutorial for student assistants

Collaborate with Research Support & Instruction Librarians to develop an online tutorial for Greer Music Library resources. Integrate the online tutorial into the training process for student assistants beginning in the fall of 2007.

## Supports Strategic Plan Initiative:

1.1.1 Bolster and support the key elements that comprise students' educational pathways, beginning with traditional classroom work and advising, and integrating interdisciplinary studies, internships, athletics, OVCS, and other student activities.

# Submit recommendations for a long-range plan to address specific space-related issues for the Greer Music Library's book and media collections

Complete the review of the current collections and resources of Greer Music Library. Identify forthcoming trends in the provision of resources to determine the most effective use of space in providing service to the campus community. Identify options regarding format, organization and storage that can maximize use of the available space.

# Supports Strategic Plan Initiative:

1.1.1 Bolster and support the key elements that comprise students' educational pathways, beginning with traditional classroom work and advising, and integrating interdisciplinary studies, internships, athletics, OVCS, and other student activities.

### SPECIAL COLLECTIONS AND ARCHIVES TEAM

## Publish and distribute Records Management Plan to campus offices

Advise and assist administrative offices in carrying out duties in regard to records management.

# Supports Strategic Plan Initiative:

2.3.6 Plan for succession and turnover in staff ranks to assure retention of institutional memory.

## Coordinate off-site storage of college records

Continue to monitor and coordinate transfer and destruction of college records sent off-site.

# Supports Strategic Plan Initiative:

2.3.6 Plan for succession and turnover in staff ranks to assure retention of institutional memory.

# Continue to develop and provide a wide range of exhibits and presentations that increase the intellectual quality of campus life

Work in partnership with the Information Services diversity outreach committee to increase awareness of the multicultural resources within the library's collections.

### Supports Strategic Plan Initiative:

1.2.1 Enrich faculty-student interaction through the finest classroom teaching, collaborative research and travel with faculty, individual studies, and honors study, and promote the intellectual atmosphere on campus through increased support for lecture series, symposia, and enhanced acquisitions in the College's library.

# Redesign Special Collections and Archives Web site

To highlight the resources and programs of the department, and offer greater user interaction, the Special Collections and Archives Web site will be redesigned. Subsequent assessment of the new design will be used to modify the site as necessary for greatest functionality and appearance. Carried over from 2005-2006, this objective is more imperative in light of the redesign of the college and the Information Services Web sites.

# Supports Strategic Plan Initiative:

3.2.1 Redesign the College Web site to build dynamic relationships with all constituencies, including prospective and current students and parents, alumni, faculty, staff, trustees, and the public.

3.4.1 Develop excellent programming for and communications with alumni – including events, reunions, publications, Web presence, and personal contacts – to build mutual support: the College will aid alumni in their continuing process of education and engagement, and alumni will be guarantors of the College's reputation and financial successes.

## **Support Institutional Digital Repository**

Continue to develop the Digital Commons @ Connecticut College by encouraging more collaboration with faculty and students. Continue to research other digital repository options that might provide improved functionality.

## Supports Strategic Plan Initiative:

- 1.2.1 Enrich faculty-student interaction through the finest classroom teaching, collaborative research and travel with faculty, individual studies, and honors study, and promote the intellectual atmosphere on campus through increased support for lecture series, symposia, and enhanced acquisitions in the College's library.
- 3.3.1 Enhance the College's visibility through new initiatives such as the development of a Faculty/Staff/Student Speakers Bureau and creation and promotion of a speaker series featuring our alumni and other high-profile individuals.

# **TECHNICAL SUPPORT TEAM**

# Improve information security and business continuity processes

Implement the registration system on the academic network to scan-and-block network access by computers with viruses, worms, out-of-date anti-virus software or Microsoft patches. Install Cisco switches in selected buildings for fast response to virus/worm infestations and hacker attacks. Further implement a separate network (DMZ) for the college's servers that connect with the Internet. Review and implement appropriate recommendations from the December 2005 IGX Global security audit report.

Replace the existing end-of-lease Bill Hall Storage Area Network (SAN) with a new unit for data storage and refurbish and re-deploy the original SAN to the library server room for data storage for disaster recovery.

Implement a FilesX data replication appliance that, in conjunction with the second SAN storage system, would provide fast recovery for Microsoft Exchange and for certain SQL server-based applications including the college Web site and WebCT.

### Supports Strategic Plan Initiative:

- 4.4.1 Expand, upgrade, and maintain campus networks to maximize the speed and reliability of electronic access.
- 4.4.2 Continue to investigate network communication trends, including wireless technology, and provide new communication technologies as appropriate.
- 4.4.3 Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

### Improve college Web site through redesign and CMS implementation

Partner with College Relations and the external Web design firm BigBad to design and implement a more effective and useful public Web presence for Connecticut College. As part of the redesign, the RedDot Content Management System will be implemented. This system will improve the management and ease of upkeep of the public Web site.

## Supports Strategic Plan Initiative:

- 3.2 Enhance the College's Web presence. Create and maintain a Web presence that reflects the strengths, characteristics, mission, and values of the College.
- 3.2.1 Redesign the College Web site to build dynamic relationships with all constituencies,

including prospective and current students and parents, alumni, faculty, staff, trustees, and the public.

3.2.3 Include a focus on the definition and value of a liberal arts education on the Web site, create links from the liberal arts page to specific Connecticut College programs, and feature a high-end media presentation to showcase the College and its programs.

# Provide improved and expanded services to alumni by creating an Alumni Online Community

Implement the Connecticut College email address for life to all alumni. Establish an email forwarding service that creates a seamless way for each student to move from the college environment to the alumni environment. Partner with Alumni Relations, Advancement, and College Relations to complete, test, and implement an Alumni Online Community including single sign-on for access for alumni, e-Portfolio, class news, an alumni directory, and selected campus portal functionality similar to CamelWeb's features.

# Supports Strategic Plan Initiative:

3.4.1 Develop excellent programming for and communications with alumni – including events, reunions, publications, Web presence, and personal contacts – to build mutual support: the College will aid alumni in their continuing process of education and engagement, and alumni will be guarantors of the College's reputation and financial successes.

## Create a strategic plan for campus telephone services

Create a comprehensive telephone and voice mail strategic plan. Review and renegotiate all telephone local, long distance, and international calling contracts. Review college-supplied student telephone services and make recommendations for future college telephone support levels for residence hall and administrative phone services. Review options for on-going telephone hardware and hardware support and make recommendations for telephone switch and voice mail upgrades or replacement

## Supports Strategic Plan Initiative:

- 4.4.1 Expand, upgrade, and maintain campus networks to maximize the speed and reliability of electronic access.
- 4.4.2 Continue to investigate network communication trends, including wireless technology, and provide new communication technologies as appropriate.
- 4.4.3 Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

# Improve networking in academic and common areas

Upgrade data wiring and electronics in two major academic buildings and 15 smaller academic or administrative buildings to improve network speed, reliability and security. Expand and improve wireless computing capacity by installing additional wireless access points in academic and administrative buildings and common areas, including exterior locations where students gather to study. Provide means for secure and un-secured wireless access to guests of the college. Provide networking for a new computer lab for the economics department in Becker House.

# Supports Strategic Plan Initiative:

- 4.4.1 Expand, upgrade, and maintain campus networks to maximize the speed and reliability of electronic access.
- 4.4.2 Continue to investigate network communication trends, including wireless technology, and provide new communication technologies as appropriate.

## **Continue with Phase II of the iConn Project**

Continue to work with all functional offices in planning, training and testing of Banner 7 and complete the upgrade in October 2006. Continue to implement additional "Self Service" products, enabling faculty, staff and students to review employment and payroll information on-line; implement an on-line registration process for the spring 2007 semester; and implement Self

Service for Prospects. Research and implement possible third party technical solutions to streamline the prospect and applicant information gathering and data entry processes. Additional on-line functionality is being planned in conjunction with the Events and Physical Plant offices and their existing third party software solutions EMS and TMA.

Undertake a review of the possible implementation of a Purchasing Card (P-Card) system tied to the Consortium of Connecticut Independent College (CCIC) and a third party system to support Campus Safety. To provide greater reporting capabilities to all functional offices, work to develop additional reporting datamarts, linked to the WebFOCUS reporting tool, to supplement the Banner baseline modules and enhance reporting capabilities. This will be especially valuable in supporting the Advancement Office reporting needs for the capital campaign. With the release of Banner 8, in January 2007, review the overall system for possible changes in business processes based on the new release and install a test instance of Banner 8 by March/April 2007. Planned upgrade to Banner 8 is October 2007. In the spring of 2007, begin review of the SunGard SCT Luminis product. Make recommendation during the Winter of 2007/2008 regarding the possible purchase and implementation of the Luminis portal product.

# Supports Strategic Plan Initiative:

4.4.3 Continue to invest in the modern information systems and technical staff needed to maximize intra-campus communications and efficient operations.

## 6. IS 'WATCH LIST'

The Information Services Department maintains a list of emerging areas that it monitors to ensure that options for service are properly considered. Department staff researches these areas each year as part of the annual planning review cycle and investigate them through presentations, conference attendance, and team discussions.

### **Information Resources Team**

Copyright
Cost of Information
Electronic Databases & Info. Access Prod.
Preservation of Electronic Publications
Open Access Publishing
Globalization of Collections
Stack and Storage Space

# **Instructional Technology Team**

Digital Spatial Data and Maps
Course Management Systems
Emerging Technologies in Teaching
Remote Collaborations and Conferencing

# **Research Support and Instruction Team**

Academic Plagiarism Information Literacy Reference Service Diversity

# **Special Collections and College Archives**

Institutional Digital Repository
Preservation and Conversation
Records Management
Digital Image Management
Creating and Managing Digital Collections

# **Technical Support Team**

Campus Data Wiring Infrastructure **Content Management** E-Commerce Identity and Access Management Internet2 Microsoft Operating Systems and Applications Mobile Computing **Network Security** Open Source Software Peer-to-Peer File Sharing Privacy Remote Application Video Over IP Voice Over IP Web Phone Systems Wireless Data and Telecommunications

### INFORMATION RESOURCES TEAM

## Copyright

Information Services recognizes the importance of copyright concerns and has posted on its Web site a detailed copyright policy with guidelines for the use of copyrighted material in the academic environment. It will be important for staff to monitor the ongoing national debate on these issues, particularly with regard to digital content, and adjust local policy as needed.

## **Cost of Information**

In addition to rising costs for the physical components of the campus network, the cost of information content and delivery is rising at a rate greatly in excess of general inflation. For example, Connecticut College periodical prices increased by 9.3% from AY03/04 to AY04/05. The average cost of academic books increased by 3.5% during the same period. As a consequence of this trend, the buying power of all libraries has been significantly eroded. At the same time, demand for new, expensive electronic products places additional strains on the materials budget. For example, at Connecticut College, expenditures for electronic databases, including full-text products, increased from \$131,070 in AY01 to \$525,728 in AY05 – an increase of 301%.

Information Services has responded to this challenge by stretching its acquisitions dollars through careful management, by working with its CTW partners, by continually reevaluating the allocation of its resources, and by exploring new delivery channels. For example, in AY99 the CTW Consortium combined its buying power to negotiate an increased discount from 14% to 16% for academic books. In addition, Connecticut College has joined in a state consortial agreement allowing us to purchase trade books at a discount of 45%. Recently, we adopted a "paper preferred" program with our major vendor to stretch our book budget by purchasing scholarly paperback editions when available. In 2001, the CTW Consortium added the University of Connecticut as a stop on its daily delivery route for shared materials providing quick and easy delivery of interlibrary loan materials between UConn and the CTW schools. During the current year Connecticut College and its consortial partners, Trinity College and Wesleyan University, are investigating a new opportunity to join in the Boston Library Consortium to expand its group of lending/borrowing partners.

To help control increased expenditures for serials, Connecticut College began canceling paper subscriptions for periodical titles available to our users electronically. To date this has resulted in a savings of approximately \$82,000 with the savings used to help defray the added costs of electronic databases. In January 2003 the Information Resources Team completed a two-year journal-usage study. The results of this study were used to work with faculty to identify subscriptions that are no longer needed. A target of \$35,000 in serials cancellations for AY05 was established and exceeded by more than \$25,000. The continuing rise in the cost of scholarly information will require ongoing development of appropriate approaches to obtaining access to the information needed by the college's faculty and students. Emphasis should be placed on increased access to information rather than ownership through enhanced interlibrary loan, electronic document delivery services, and consortial cooperation in acquisitions. A CTW collaborative collection development group has been formed to formalize the process of building a shared collection in the future.

## Electronic Databases and Information Access Products

The proliferation of electronic databases and information access products over the past few years continue to present new opportunities for libraries. The movement towards linking all of these electronic products together into an interconnected digital library has resulted in the development of cross-platform searching tools such as MetaLib and companion products such as SFX. With these products a user can search multiple databases concurrently and then move seamlessly from citations to full-text products, document delivery services, local online catalog, and interlibrary loan services. Information Services staff must keep watch on the rapidly developing technology of electronic delivery of information – both content and methods of accessing the content – and provide its users with the best of current technology within budgetary limits.

## Preservation and archiving of electronic journals and texts

Libraries are rapidly moving their collections of scholarly journals from print to electronic format. In most cases, access to these electronic journals is licensed rather than purchased, presenting a significant new preservation and archiving challenge. Who will assure that the content of these journals will be preserved in perpetuity? Librarians must be cognizant of and willing to invest in new initiatives such as Portico and LOCKSS designed to guarantee the preservation of this material.

## **Open Access Publishing**

New developments in open access publishing are of great interest to academic libraries. Initiatives such as SPARC and the Public Library of Science (PLoS) are designed to alleviate the high cost of academic materials by making available peer-reviewed journals at minimal or no cost. Shain Library has recently become an institutional member of both the PLoS and SPARC and should continue to monitor and support open access publications. Information Resources staff has created a Web site with extensive information on open access initiatives under way.

## The Globalization of Library Collections

What will be the effect on local library collections of products such as Open WorldCat, which integrates local library catalog records into the results of standard internet searches performed by popular search engines such as Google? How will digitized scholarly collections available on the Internet (e.g., Google Scholar) affect local collections and library use? What contributions to scholarship can our library make by digitizing unique collections and making them available through the Web?

# Stack and Storage Space

Shain Library, built in 1976, was designed to accommodate 20 years of growth in its collections. Now, in 2006, we face a growing problem with on-site storage of our print and media collections. While a renovation and modest extension of Shain Library is planned for the future, the multiple and varied needs for new service areas will be the primary focus with little added shelf space for printed materials. Initial planning for the renovation forecasts the need to provide space for an additional 140,000 books, 24,000 bound journals, 60,000 government documents and 8,000 video materials in the library's collections by the year 2030. Therefore, it will be necessary to explore alternate solutions for the storage and rapid retrieval of lesser-used materials. Information Services staff has explored the feasibility of installing compact shelving on the lower level of the building and will seek funding for partial installation in AY06-07. In addition, Connecticut College will join with the Five Colleges, Incorporated consortium in Massachusetts in sharing an archival copy of print copies of all electronic journals available in JSTOR. Future planning should incorporate anticipated needs for the storage of digital information of all types, including textual, numeric, images, video, sound, multimedia, simulation, etc.

### INSTRUCTIONAL TECHNOLOGY TEAM

## Digital Spatial Data and Maps

An increasing number as well as type of electronic resources are becoming available for use in teaching and research. Digital spatial data and digital maps for use in Geographic Information Systems (GIS) are now becoming available. Data already in GIS format is also available. Larger collections of data including live access to these data sets is becoming available through the faster access networks provided by Internet2. This wealth of new resources must be monitored and incorporated into our planning as we upgrade networks and provide support for teaching and research. New technologies enable delivery of GIS data sets through a Web browser interface in which users with no experience in using GIS can use these rich and valuable data sets.

# Course Management Systems

Recently the Blackboard and WebCT course management system companies merged, with the promise of creating a best-of-breed system in three to four years. Since WebCT is an integral

part of many courses it is important for us to monitor developments in this field and to provide the right solution for our faculty and students. There is a long lead time required to make a transition from an existing system to another so we pilot new systems long before adopting them. We are also monitoring the open source options for course management.

## Emerging Technologies in Teaching and New Ways of Teaching and Learning

Information technology is transforming how faculty teach and how students learn. In order to maintain its leadership position, Connecticut College needs to monitor emerging and evolving technologies and the ways in which technologies can enhance teaching, learning, and research. The Instructional Technology team researches and creates pilot programs using new technologies such as the various formats and delivery methods for digital video, including live video streaming, desktop video conferencing, DVD, and delivering video clips through WebCT course sites.

We need to monitor new technologies as well as technologies that are changing. Often when new technologies are announced they are not stable or do not have appropriate software or other resources needed to effectively use them. Also many competing new technologies don't follow industry standards, perhaps because a standard has not yet been developed for that particular type of technology. These technologies include authoring tools, image storage and management resources, and mobile technologies. Two mobile technologies with great potential are the Tablet PC and the iPod. We need to keep apprised of the new technologies and their potential application in higher education. We adopt technologies when standards have been established for the technology. We do not implement them prematurely as this could waste college money and the time of faculty, staff, and students. We must also have the resources both financially and personnel-wise to adopt new technologies. We must also follow trends in new ways of teaching and learning including changes in classrooms and other learning spaces. Open Source software offers great potential for providing customized and powerful new programming for colleges. The Internet2 will provide new opportunities to access and share resources with other institutions.

Blogs and Wikis provide new ways for information sharing and collaboration outside the classroom. We are monitoring academic uses of these technologies, looking for ways to enhance student learning, and will include demonstrations of them in our Tempel Summer Institute program. We are also exploring ways that podcasting and digital images and videos can enhance the curriculum.

We have already seen many benefits from both the use of new technologies and new ways of using technology in the curriculum. For example, through the WebCT course management system, faculty are able to provide students with electronic reserves 24/7. These resources can include class lecture notes, images, audio clips, and video clips. With access to these resources prior to a class session, class time can be spent in discussions, clarifying difficult concepts, and engaged in scholarly discussions rather than students taking notes during a lecture.

# Remote Collaborations and Conferencing

With the advent of remote conferencing technologies such as videoconferencing and Web-based video, it will be possible to bring visiting scholars, artists and other distinguished professions to campus, through virtual seminars, discussions and classes. Many colleges, research facilities, and businesses have recently installed or have access to videoconferencing facilities. As we recently installed a videoconferencing system we are following trends in this field to find the most effective and sustainable ways to use videoconferencing in college.

We are studying ways that videoconferencing can enhance the teaching and learning experience here. These include opportunities for bringing virtual visitors to the classroom. For example, a

zoology class might be reading the publications of a California-based scientist studying intertidal ecology. The scientist could visit a class through a videoconferencing session. Students could ask questions and the scientist could share insight and show the students some of the organisms she is currently studying. There are issues we will have to resolve in supporting videoconferencing including funding for connecting videoconferencing facilities and supporting videoconferencing sessions.

## RESEARCH SUPPORT AND INSTRUCTION TEAM

## Academic Plagiarism

The explosion of information on the Internet and the ready availability of full-text, electronic resources have significantly increased the access to scholarly materials for student researchers. This improved wealth of resources has also made it easier for students to find and copy text, using it as their own work. These opportunities will only increase in the future. At Connecticut College the Honor Code makes specific reference to plagiarism as a violation of the honor code and places the responsibility on the student to be aware of the correct methods for attributing resources. Librarians recognize the importance of proper attribution of information and the use of appropriate citation formats. With this recognition comes an increased role for librarians to help identify plagiarism and to work with faculty to educate their student researchers about plagiarism and how it can be avoided.

# Information Literacy

The explosion in information sources available on the Internet underlines the importance of an issue familiar to librarians, that of information literacy. Librarians have always worked with faculty and students to educate students about the authenticity of information sources. Print collections, which require the mediation of librarians, lend themselves to this activity. However, electronic sources, which require no mediation, pose challenges for faculty and librarians working to differentiate authentic from inauthentic sources. The Internet's speed, convenience, and '24X7X365' availability compound the problem by creating expectations in excess of currently available resources.

With this change in format comes a change in the learning styles of undergraduate researchers. This new generation of students approaches the Internet and electronic resources with greater expectations for speed and full-text access. Their approach to identifying and evaluating research varies greatly from the previous generation and requires a different approach in providing reference and instruction. Librarians will need to develop instructional techniques and methods of service, which are flexible in meeting these needs.

The literature indicates that integration of information literacy into classroom instruction develops knowledge systematically as students focus on course content. Ideally, information literacy instruction becomes invisible to the students as he or she concentrates on subject mastery. Certainly, information literacy skill development becomes more relevant to a student when it is directly related to successful completion of regular discipline-based courses. In addition, instruction integrated into the curriculum encourages easier mastery and retention of information literacy principles for application in future learning activities.

The Research Support and Instruction Team is working on several levels to transition its provision of instruction and service to accommodate these new concepts. Librarians are working one-on-one with faculty to integrated research and critical thinking concepts into their course curriculum. Librarians are incorporating teaching techniques that foster critical thinking skills into their more traditional course-related instruction. Research support services include a variety of options for researchers seeking assistance in conducting research; including personal research sessions, e-

mail reference, desk reference and a wide variety of subject and research guides. Librarians working with their CTW Consortium counterparts anticipate even further expansion of these information literacy efforts as they continue their collaborative work through the CTW Mellon Project for Information Literacy. With this support librarians are working to integrate the concept of information literacy beyond the library and into the college's undergraduate curriculum.

### Reference Service

The changing nature of information from print to electronic resources also has the potential for changing the way reference service is provided to faculty and students. The expanding availability of electronic databases and information resources from outside the library will require that reference librarians redesign the way in which they assist in the research process. Material once available to only a few is now readily available to a larger number of student and faculty researchers. Increased access means that the expectations for scholarly research have increased. How, when, and where we provide service are all crucial concerns for the contemporary librarian.

Another issue for reference service is that the increased availability of information will create a greater need for more extensive research assistance. Many academic institutions are utilizing various configurations of tiered reference service. Traditional reference desk service is now complemented by individual research appointments with a subject specialist in a particular field of study. Consideration will also need to be given to expanding services to meet the changing needs of scholars as the college pursues its mission to build a more diverse and pluralistic community, This new approach to traditional reference service is potentially very labor intensive and creates new dilemmas for the reference staff in weighing service coverage over quality of service.

No matter what the form of reference service, librarians will need to be increasingly flexible in meeting research needs at times that are easy and convenient to the researcher, and increasingly perceptive to user needs if we are to maintain our level and quality of service.

## **Diversity**

The increasingly global nature of higher education is evident in the growing diversity of students attending Connecticut College from other countries. This diversity and the increased opportunities for our students to study abroad require that the services and resources we provide support their learning experience through recognition of their cultural differences. Diversity also includes those underrepresented students who bring considerations of race, gender, ethnicity and disabilities into the academic environment. Developing a greater awareness of these considerations among staff and providing opportunities to meet their needs should be an ongoing component of Information Service's mission.

## SPECIAL COLLECTIONS AND ARCHIVES TEAM

### Institutional Digital Repository

Within the past several years a number of major research institutions have developed model "superarchives" or online digital repositories for sharing the results of research done by institutional scholars. In part these archives are seen as a potential alternative to the costly scholarly-journal system for disseminating research results. An early developer of these new digital repositories is MIT's DSpace, which encourages professors to submit their papers, data sets, and other research results for inclusion; the materials are tagged with metadata codes to assure that they will be searchable using standard search engines. The goal is to share these materials freely through the Web with scholars around the world.

In 2005 Connecticut College took the first steps toward becoming part of this trend in scholarly communication by creating its own digital repository, Digital Commons @ Connecticut College, to preserve and provide access to the intellectual achievements of the students and faculty of the college produced in digital format, such as honors papers, master's theses, faculty publications, conference proceedings, etc. However, the success of Digital Commons will require the support and collaboration of the entire campus community. Connecticut College should be poised to take advantage of emerging options and developments in this rapidly changing technology.

### Preservation and Conservation

The American Institute for Conservation defines preservation as "the protection of cultural property through activities that minimize chemical and physical deterioration and damage and that prevent loss of informational content. The primary goal of preservation is to prolong the existence of cultural property." Threats to preservation include inherent weakness in the physical or chemical composition of documents, improper physical handling, theft, vandalism, fire, water, pests, pollutants, light and improper environmental conditions. Conservation activities address damage resulting from any of the above.

Historically, libraries have included in their mission the preservation, conservation, and continued accessibility of the cultural property included within their collections through activities such as binding and repair, reformatting (reproducing deteriorating collections onto stable media), deacidification projects, and the introduction of security systems into the building. Information Services has addressed these traditional concerns through the establishment of a Preservation Activity Group, the creation of an Emergency Procedures Manual, and the training of staff in basic book conservation techniques.

With the rise of information technology and the proliferation of digital information, libraries face new challenges in preservation and stable access to cultural property. Will digital information be consistently archived and available for consultation in the future? Migration of data from platform to platform and to subsequent generations of hardware without degradation of data must be made possible. Information specialists must be proactive in insisting on stable access to digital information accessed through commercial sources. Local digitization projects should be explored as a means of preserving materials and making them more widely available through the possibilities of multiple electronic access points provided by both the campus network and Internet. The department should continue to monitor the preservation of information in its different formats, paper, microform, digital, etc., as well as artifacts of the college's history, and to take the necessary preventive and remedial steps to preserve them. As technological advances create new and reliable methods of data storage, staff should be poised to take advantage of them.

# Records Management

Information is one of the most vital, strategic assets any organization or institution possesses. Recent records legislation requirements make managing information a legal obligation that demands the attention of all offices producing records. In addition, managing information—particularly records— assists offices in running more efficiently.

Properly organizing and maintaining records and information, in both paper and electronic formats, is imperative to successfully managing information created by the college. The ability to identify, organize, maintain, and access needed information and properly dispose of the rest benefits institutions in many ways including: cost savings, efficiency, regulatory compliance, and reduced risk of litigation.

During the past year the first Connecticut College Archives & Records Management Program Manual has been written. Pending further revision by senior administrators and examination by legal counsel, this manual will provide the official guidelines for records management at the college. These guidelines and retention schedules must be in compliance with current laws in the state of Connecticut as well as with federal guidelines for certain types of records so that the college will be able to stand behind these practices if challenged in court. Once the Records Management Program has been officially adopted by the college it is imperative that the guidelines be followed by all departments.

## Digital Image Management

The digital images and photographs created by and/or owned by Connecticut College are one of its most valuable assets. These image collections are maintained and controlled by many departments: the art images in the Visual Resources Library created primarily for the use of the art history faculty; images created for teaching purposes in the Digital Media Lab; digital photos of campus events and people by College Relations; historic photos of Connecticut College in the College Archives; historic photo collections of Eugene O'Neill and of Rachel Carson in Special Collections. Some images are used for teaching purposes, some for publicity, some to document the history of the college, and some, such as O'Neill and Carson, are licensed for use in publications and films.

In addition to the collections described above that the digital photographs that are taken today become part of history tomorrow. It is therefore extremely important that steps be taken soon to make certain that all of these photograph collections, print or digital, be preserved for the future. Equally important is to make sure that they are organized for easy access and retrieval. A task force composed of representatives from the areas mentioned earlier has met to discuss the especially difficult problems regarding digital images. The task force should continue to meet regularly to share information and to discuss ways to manage and preserve the photographic image collections at Connecticut College.

## Creating and Managing Digital Collections

Many academic institutions and museums have created digital collections for use by their students and faculty and by the public. Typically the objects that are digitized are owned by the institution and out of copyright. Often they are too valuable or fragile to be displayed or handled frequently although they are useful and interesting as potential teaching objects and for research purposes. One solution to this conundrum is to digitize the objects and display them as online collections. An excellent example at Connecticut College is the Wetmore Print Collection in the art history department. There are a number of possible projects in the Connecticut College libraries: the historic pre-1923 sheet music, the Japanese print collection, the New London historical postcard collection, and the photos of early college history.

While it is possible to create in-house systems to archive, manage and display these collections, a better solution is to license a product such as ContentDM. But any solution is costly whether it is with home-grown or licensed software and will be expensive to carry out in terms of staff time to plan, implement and supervise. Nevertheless, we should be alert to opportunities to create digital collections possibly through grant funding or in partnership with academic departments.

# **TECHNICAL SUPPORT TEAM**

# Campus Data Wiring Infrastructure

Three quarters of the Connecticut College wired data network has been upgraded to current wiring standards and the remaining buildings are scheduled for a cabling upgrade during summer 2006. When this is completed, the interior data cabling will meet or exceed all projected transmission requirements for at least the next eight years. The fiber data network between college buildings is eighteen years old, but it is still reliable and it meets current transmission standards.

Although Wireless networking does not provide sufficient speed for many of Connecticut College's academic and personal users' needs, it has proven useful to foster campus collaborative computing initiatives, mobile computing activities, and to provide network connectivity for temporary offices and meeting spaces.

A combination of copper Ethernet and fiber technologies combined with wireless technology in common areas, lounges, and group study spaces is considered to be the most economic and flexible method to connect computers and other networked devices. Information Services will continue to monitor network connection standards and practices and to request resources to upgrade the network as appropriate. Information Services will review developments and trends in wireless networking that promise faster and more reliable wireless connectivity.

# Content Management

The amount of electronic information is increasing at a logarithmic rate. There is so much information that faculty, staff, and students are at risk of losing control and use of the data. There is too much new and too much outdated information for people to review, evaluate, update, and share. College Web sites are growing so large that they are becoming unmanageable. Faculty research and curriculum vitae data is difficult to document and preserve and student co-curricular activities are rarely available.

Hundreds of companies and educational institutions have created content management systems (CMS) to create information, to provide convenient access to information, to manage updating data and deleting outdated materials, and to assure that data is preserved. The college has purchased the RedDot, Inc. content management system to control the college Web site. This CMS can be expanded for archiving and retrieving electronic records. We are also investigating the SunGard SCT Luminis product to integrate CamelWeb with the SunGard SCT Self Service products. Connecticut College is using a form of open-source content management for the CamelWeb and e-Portfolio.

Information Services will continue to monitor the use of content management software for Web and also document management.

#### E-Commerce

Electronic business (e-business) is changing the way colleges conduct business across industry and geographic barriers. As a result, higher education institutions are no longer just competing against one another, but against software vendors, publishers, and training providers that are rapidly entering the education market. Additionally, the rising popularity of the Internet, increasing demands of students, faculty, staff, and alumni, continuing budgetary constraints, and emerging opportunities for new and/or increased revenue streams are compelling higher education institutions to develop and implement e-business strategies.

However, as management migrates toward an e-business operations model, many existing risks will be heightened and a number of new risks will be introduced such as the implementation and support of new products and services, security concerns with the use of public networks, and confidentiality and privacy issues. To achieve continued success with Web-based services, colleges must obtain and retain user confidence. Students, alumni, faculty, and administrators will only transact business through a Web-based channel if they are confident in the availability and reliability of the channel, and the security and privacy of the data captured in that channel.

The SunGard Higher Education Banner software is based on Web delivered E-commerce technology. The implementation team has addressed the many risks and built a reliable and secure system. The functional work staff is convinced that the new system will work for the entire campus and E-commerce will improve our business processes. During the 2006-2007 academic year, students will register on-line using SunGard Higher Education Self Service. Additional Webbased E-commerce services for faculty, staff, and students will be added as we gain more experience. The IS staff is also reviewing, with appropriate functional offices, developments in e-payment, one-card systems, and online bill payment procedures to enhance the college's E-commerce capabilities.

# Identity and Access Management

As the number and complexity of systems that require some type of user identification and authorization increases, new methods will be needed to provide authentication and authorization of users. The implementation of Banner, with its capabilities for self service Web access, gateways to other applications (WebCT, Events management, Facilities management, etc.) and integration with CamelWeb or other portals, has highlighted the limitations of our current processes and is one of the driving forces for changes in this area.

While developing our own improved procedures, we will be closely monitoring projects at other institutions as well as the efforts of organizations such as EDUCAUSE, the Internet2 Middleware Initiative and the NSF Middleware Initiative. Processes and technologies in this area include:

- Enterprise directories
- User identifiers
- Authentication including smart cards, passwords, and electronic credentials
- Authorization
- Public Key Infrastructure (PKI)
- Federated Identity Management
- Enterprise directories

Future investments in products and services relating to these areas may be necessary to maintain and improve the security and integrity of the information systems that we support.

## Internet2

Internet2 (I2), led by over 170 U.S. universities working in partnership with industry and government, is developing and deploying advanced network applications and technologies, accelerating the creation of tomorrow's Internet. I2 advanced applications enable collaboration among people and interactive access to information and resources in a way not possible on today's Internet. Tele-immersion, virtual laboratories, digital libraries, and distributed instruction are just a few examples of I2 applications areas.

The college is connected to the Connecticut Educational Network and this provides access to I2 at an affordable cost. The college upgraded the data wiring and electronics in a number of

academic buildings to facilitate access to I2. The first use of I2 technology is the CTW Computer Science videoconferencing system, recently funded by the Andrew W. Mellon Foundation grant.

For Connecticut College, membership will continue to be necessary to remain competitive with its research university counterparts, particularly in the sciences in areas such as participating in research, attracting and retaining faculty, and exploiting products and services aimed at this academically competitive environment.

# Microsoft Operating Systems and Applications

Most colleges and universities, including Connecticut College, use Microsoft products for computer and server operating systems, email and productivity applications, data base management, and for many other personal, academic, and business activities. Microsoft products are selected because of educational pricing, because the products work well, and because there are many resources available for technical support and training.

There are risks involved in using one vendor for so many crucial college activities. Because the college is so dependent on Microsoft, it could be trapped into using the product even if the vendor changed the features, the pricing, and support levels without consulting with the college. In addition, the college is more affected by virus, worm, and hacker attacks that are directed at computers made vulnerable by Microsoft software flaws.

The technical support team is also evaluating and testing the next version of the Microsoft operating system, Vista, that is scheduled for general release later this year. We will also review the features, functionality, and security for MS Office 2007 when that software is closer to general release

At this time, the benefits of Microsoft products outweigh the risks. The technical support staff will continue to monitor Microsoft, the corporation, and Microsoft products as well as products from other vendors including open source software.

## **Mobile Computing**

The convergence of cellular telephone technology and portable computing devices, such as tablet notebooks, BlackBerries, PDAs (portable digital assistants), and third generation cellular telephones, represent an important shift in computing technology. Although this development has obvious applications in areas such as administrative computing and enhanced e-mail communications, innovative educational applications that utilize mobile computing have not been fully developed.

A number of senior administrators and staff members are using the BlackBerry telephone and data technology to increase their communication effectiveness. Information Services is still considering a partnership with a "3G" capable cellular company to provide access to this newer technology. IS staff members are also reviewing the functionality and effectiveness of "tablet PC" computers to further enhance mobile computing and we will also test the just announced "Origami" portable computing device when it reaches the market. The next generation of mobile computing devices will probably provide the functionality of computers, cell phones, digital cameras, and iPods.

# **Network Security**

Information Services staff continue to make network security a priority and have recently improved network security by adding policies, procedures, hardware, and software to protect

college data and computing resources. The open nature of the Internet creates many new vulnerabilities in terms of network security. For example, Microsoft Outlook, an office productivity package increasingly used at the college, has recently been used as a carrier for malicious computer viruses. In addition, colleges have been warned that computer networks are terrorist targets for attack and takeover for use in electronic warfare. The computer security industry is anticipating an increase in the number and severity of cyber attacks. Operating systems that were relatively immune to attacks, such as UNIX and Linux, both of which are in use at the college, are now at risk.

In April 2005, senior administrators approved an initiative from IS that all college staff, faculty and students should participate in Information Security Orientation training beginning immediately. We are initially targeting staff in Advancement, Finance, Records and Registration, Counseling and Health Services, and Financial Aid as these staff members will regularly deal with secure information. Eventually everyone who uses computing resources on campus will participate in the orientation session. All new employees, as a part of their general introduction to the college, will go through the training as well.

The growing volume of unsolicited commercial e-mail, Spam, as well as illegal phishing attempts to steal personal information is placing the college's network and users at risk. Spam clogs the network and disables access to essential college information. Faculty, student, and staff time is wasted deleting worthless Spam. In addition, hackers sometimes use Spam e-mail to gain access to personal information or to camouflage a virus or worm attack. The network staff is monitoring anti-Spam technology developments that would control this growing problem. The staff will continue to monitor the new forms of Spam and the new technologies to control it.

As the college moves to place its critical information resources on a new administrative information system and other computer applications, it needs to ensure that its campus network is protected from improper use or attack. This will be accomplished by continually monitoring new digital threats and maintaining network protection devices and software systems including firewalls, intrusion detection and prevention systems, virtual private networks, and anti-virus software. The college will also maintain its contract with a computer security firm to regularly test the college's computer network with the most current diagnostic tools to provide additional information to improve network security.

#### **Open Source Software**

Open source software is free computer software that is provided with no restrictions of use, modifications, and redistribution. Open source software titles include Apache, the most widely used Web server software, and Linux, the second most widely used operating system. The college currently uses both Apache and Linux and we have also downloaded and reviewed MIT's archival software, D Space. The college uses academic and administrative open source software that is current, functional, and backed by a reliable support structure.

The IS staff monitors and reviews both academic and functional open source software. Connecticut College fully supports the open source software movement. In fact, Connecticut College's e-Portfolio software revision adds interoperability and functionality to the program to bring it more in line with other open source e-Portfolio products.

## Peer-to-Peer File Sharing

Peer-to-peer (P2P) file sharing technology permits individuals to download electronic files, music, software, and motion pictures and it can be used for both legitimate and illegal purposes. Legally, it can be used for such purposes as educational collaboration or sharing personally photographed images. Illegal uses include downloading and sharing copyrighted films, software, and music

without permission. Improper peer-to-peer file sharing transcends a number of watch list items including violation of copyright laws, overloading the campus data infrastructure, imperiling network security because P2P can bring worms, viruses, and spyware inside the normally protected network, and violation of individual's privacy. In sum, illegal file sharing could imperil the college's electronic resources and also place the offender at risk of substantial criminal and civil penalties.

The New York Times has reported that more than one half of American high school students use peer-to-peer file sharing. Many of these students do not have an understanding of the legal and security risks of file sharing. The college warns every staff, student, and faculty member that illegal file sharing is wrong and against federal laws and college policies. The information security officer sends warnings to the college community about the security risks of file sharing and the IS staff is working with the Student Government Association to reduce illegal file sharing. The college is also using new technology to eliminate almost all external peer-to-peer traffic that was disrupting the student network. The staff has reviewed several proposals to provide legitimate access to music and motion pictures for our students as an alternative to illegal file trading.

Peer-to-peer file sharing is a dynamic issue that the IS staff will continue to monitor. Legal issues of file sharing are changing as Congress and the recording industry deal with the mounting economic, technological, and social developments in this area.

# Privacy

New federal and international laws have been passed to address privacy concerns about personal data. Currently only financial institutions and companies that share data with financial institutions are affected. Congress may expand these laws to include all Web-based activities that are used to collect and store personal data.

The government has also implemented procedures that affect privacy as a result of the terrorist attack of September 11. One new law, the USA Patriot Act, was enacted to expand the power of the federal government to track and access personal information. The college has developed and distributed a policy and procedure for responding to USA Patriot Act based requests for information.

New FCC regulations under the 1994 Communications Assistance for Law Enforcement Act (CALEA) may require the replacement of a portion of our network electronics by Spring 2007 in order to be compliant with the law. This regulation would require colleges to enable federal wiretaps for the phone and data network. A number of colleges and associations are petitioning the FCC to temper this requirement because the potential costs to enable this wire taping is billions of dollars. IS is carefully tracking this requirement.

At this time the college is in compliance with the following Privacy Legislation:

- 1. Federal Trade Commission regulations resulting from the Gramm-Leach-Bliley Act of 1999 (GLBA) 16 CFR Part 314, "Standards for Safeguarding Customer Information"
- 2. Department of Education regulations resulting from the Family Educational Rights and Privacy Act (FERPA) 34 CFR Part 99, "Family Educational Rights and Privacy"

IS will continue to monitor current and pending legislation and take steps to design the computer network to secure student, employee and alumni data and comply with new regulations and laws as the college employs more E-business and administrative information system applications.

# Remote Application Hosting

The Application Service Provider (ASP) market is a segment of the computing industry that enables organizations to host software systems off-site. ASPs enjoy economies of scale in both equipment and staffing that can be passed along to customers, but at a trade-off for customized software support and campus communications. Some ASP vendors have been adversely affected by the economic turndown and the college must carefully monitor vendor and ASP industry business stability. Connecticut College already uses an ASP to host its Harris Online Community on the Alumni Web site. As this market matures, the college will want to review the ASP alternative as it enters replacement cycles for its enterprise servers and purchases a new administrative information system.

### Video Over IP

New Video Over IP (Internet Protocol) H.233 standards have been developed allowing for low-cost video conferencing, video collaboration, personal video telephony, and video "chatting". The products to deliver Video Over IP are still being developed, but it is now clear that this technology will change learning and research. Students and faculty will not be restricted by location. It will be easier to interact with others on the Web. Video office hours would be possible. In addition, students, faculty, and staff could easily use Video Over IP for personal and recreational activities.

It is clear that this technology will have a great impact on the IS data infrastructure. The end-user will be able to videoconference easily and inexpensively. The college is in the process of rebuilding the data network to accommodate greatly increased levels of IP information.

#### Voice Over IP

As the Internet becomes a common platform for media transmission of audio and video, Voice Over IP (Internet Protocol) is emerging as an alternative to conventional telephone technology. However, presently Voice Over IP services are somewhat unreliable and of poor quality due to the bandwidth needed to ensure smooth connections. The campus data wiring and electronics replacement plan, substantially completed in the summer of 2006, makes IP telephony possible. A staff member, working remotely from Florida, has a Connecticut College campus telephone extension on his computer using VoIP technology. Several other staff members are testing IP telephones on campus.

The factors in adopting IP telephony are rapidly converging. FCC regulations are stabilizing and the campus network is nearly ready to handle this traffic. It may be possible to replace the existing telephone network with an Internet-based solution to benefit the college within the next three to five years. Cost savings may occur because the college could eliminate hardware, maintenance contracts, and some long distance charges. It would also permit students and faculty to maintain normal campus telephone service while they are around the world conducting research, on study away trips, or on internships.

# Web Phone Systems

For several years a small fraction of Connecticut College students have been using Web-based telephone systems in lieu of the college's long distance service. These Web systems had mediocre technical quality and did not seriously impact the volume of student long distance traffic.

This is no longer the case. The New York Times identifies Skype and other Internet phone systems will take over voice communications. According to the New York Times Skype is a "system that allows anyone with a computer and a broadband connection to call mobile or land-

line telephones almost anywhere on earth for pennies per minute. When two people are at computers running Skype, they can talk to each other (using a headset or microphone) as long as they want, with sound quality far better than that of telephones, absolutely free."

This program, and one like it, have revolutionized college telephony for students. Fewer than 18% of the students are using the college's telephone system to make long distance calls. The impact on college phone services for faculty and staff is not clear at this time. There may be a need to maintain a switchboard function in order to direct calls.

The college's long distance telephone contracts and the telephone switch lease will expire at the end of FY07 and we will factor Web Phone systems into our telephone strategy.

#### Wireless Data and Telecommunications

Wireless networks are now affordable and reliable. However, wireless connection speeds have not increased enough to support the bandwidth requirements of Connecticut College students, faculty and staff, particularly as they continue to work on bandwidth-intensive applications such as full-motion video and graphics rich documents in selected locations. In fact, today's wireless networking system provides a slower data transmission rate than the existing wired system. In addition, protecting the security of wireless data still remains an outstanding issue even though the college is using the VPN (virtual private network) technology to encrypt the data. At this point wireless networks are more a "consumer" convenience rather than institutional necessity.

During the past year additional 802.11 wireless standards were approved and 802.11g equipment was released to the market. The new systems improve data transmission speed. Information Services has installed 53 access points in the library, every residence hall, the student center, several classrooms, and the Greer Music Library. More access points will be added during summer 2005.

Sprint and other cellular providers have recently marketed "3G", third generation, wireless devices that connect cell phones and computers to the Internet using cellular technology. The effective transmission rate is about 85 Kbs, but this rate is expected to increase to surpass the 802.11 transmission speed in the future. The college has had discussion with Sprint about the new technology and we will continue to investigate the educational potential of 3G technology.

A new wireless standard 802.16, Wi-Max, is under development. Wi-Max is capable of transmitting network signals covering in excess of 30 miles of linear service area, which is much greater than 802.11 a and b Wi-Fi's coverage of several thousand square feet. It provides shared data rates of up to 70M bit/sec., which is also greater than Wi-Fi's theoretical high of 54M bit/sec (for 802.11g). Wireless computing technology is still volatile and the wireless standards are changing on a yearly basis.

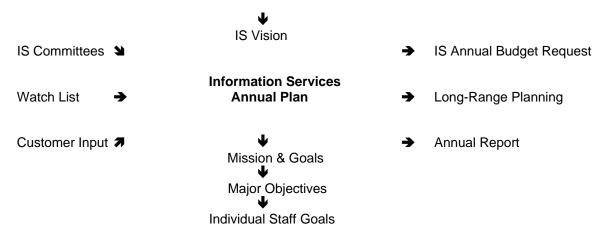
The capability of wireless data telecommunications is predicted to improve in the next few years and the college will monitor new developments in wireless networking. We are prepared to deploy this technology throughout the campus when security, cost, and transmission issues have been resolved.

## 7. APPENDICES

#### 1. Process

Overview

Connecticut College Comprehensive Strategic Plan



# Relationship to Connecticut College Strategic Plan

The Information Services Annual Plan supports the College's Strategic Plan, *Connecticut College* 2011: Launching the Second Century. Each objective discussed in this document can be linked to a specific strategic plan initiative or it supports the plan as a whole.

# **Role of Information Services Department**

The Information Services Department implements the Information Services Annual Plan and also monitors technical developments affecting the plan.

## **Role of Information Services Committees**

The Information Services Committees represent the interests of the Connecticut College community as a whole. The college Information Services Committee consists of faculty, students, and staff. The Board of Trustees Facilities and Infrastructure Committee and the Committee on Academics will provide oversight and review of IS operations and planning. The IS Committees review the Information Services Annual Plan each year and ensure that it complies with the strategic direction of the college.

## **Future Orientation**

The Annual Plan 'leans into the future' by investing time and resources and analyzing the impact of emerging trends in information services. It maintains a 'Watch List' of key emerging trends and revisits them within the annual cycle. The Information Services Department takes leadership on campus in stimulating discussion of these trends through events such as workshops, seminars, presentations, and similar events cosponsored with peer institutions.

# 2. Annual Planning Cycle

The Information Services Annual Action Plan is updated according to the following cycle.

		<u>Start</u>	<u>End</u>	Responsible
•	Conduct IS Futures Discussions	May	Jun	Leadership Team
•	Compile Team Annual Reports	July	Aug	Team Leaders
•	IS Dept. Annual Report	Aug	Sep	Leadership Team/ Spec. Proj. Coord.
•	Review Watch List & Revise	Sept	May	Leadership Team
•	Review IS Goals Relative to CC Strategy	Oct	Oct	Leadership Team/ IS Planning Comm.
•	Review IS Goals and Draft Objectives	Oct	Oct	Leadership Team/ FSCC IS Committee
•	Develop & Cost Objectives, Round 1	Oct	Nov	Teams
•	Review & Comment	Nov	Nov	FSCC IS Committee/ Campus Community
•	Develop & Cost Objectives, Final Round	Nov	Nov	Leadership Team
•	Revise Operating Budget & Create ACL Requests	Nov	Nov	Vice President for IS
•	Package Operating Budget Request for Finance and PPBC	Nov	Dec	Leadership Team/ Budget Assistant
•	Review Draft Annual Plan	Mar	May	FSCC IS Committee/ Board of Trustees
•	Determine Major Objectives	Apr	Apr	Leadership Team
•	Publish Revised Draft Annual Plan	Apr	May	Leadership Team/ Spec. Proj. Coord.
•	Finalize and Approve Draft Annual Plan	May	May	FSCC IS Committee
•	Submit to Board Committee on Academics and Facilities and Infrastructure Committee for review and comment	May	May	Spec. Proj. Coord./ VP for IS
•	Finalize and publish IS Annual Plan	May	June	Spec. Proj. Coord./ VP for IS

An IS Annual Report is produced each summer that summarizes IS accomplishments and activity for the preceding year.

# 3. Information Services Organization and Staffing

#### Vice President for Information Services and Librarian of the College, W. Lee Hisle

Administrative Assistant to Senior Administrator, Diane Bullock Financial Assistant, Shawn Murphy Special Projects Coordinator, Melissa Behney

# Director of Instructional Technology, Chris Penniman

Visual Resources Library

Media Services & Campus Television Network

Computer Labs

Instructional Project Development

Visual Resources Librarian, Mark Braunstein Media Services Senior Technician, Dave Baratko

Media Technician, Jeff Gada Weekend Technician, John Mercier Computer Labs Supervisor, Don Blevins Computer Lab Technician, Newell Seal Digital Media Specialist, Frank Fulchiero

Instructional Designer/Developer, Diane Creede Instructional Graphics Designer, Janet Hayes Foreign Language Specialist, Marisa Castagno

#### Director of Research Support and Instruction, Beth Hansen

Shain Library

Greer Music Library

Research and Instruction Librarian, Jim MacDonald Research and Instruction Librarian, Ashley Hanson Research and Instruction Librarian, Kathy Gehring Research and Instruction Librarian, Melissa Behney Research and Instruction Librarian, Linda Alexander

Music Librarian, Carolyn Johnson

Assistant in the Music Library, June Ingram

#### **Director of Information Resources, Marian Shilstone**

Acquisitions, Serials, Documents Processing

**Bibliographic Information Management** 

Circulation and Reserve

Interlibrary Loan/CTW Circulation

Acquisitions Supervisor, Lorraine McKinney

Electronic Access/Serials Librarian, Melodie Hamilton

Serials Assistant, Lori Looney Cataloguer, Sandy Morse

Asst. Cataloger/Supervisor Book Prep, Jean Baker

Circulation Supervisor, Lori Blados Reserve Supervisor, Carol Strang

Evening Circulation Supervisor, Sean McKenna Evening Circulation Supervisor, Linda Hurteau Evening Circulation Supervisor, Stacy Foster Interlibrary Loan Supervisor, Emily Aylward

CTW/ILL Assistant, Paula Orbe

# **Director of Technical Support, Bruce Carpenter**

iConn Project

Administrative Information Systems

Computer Purchasing and Training

Networks, Servers, Telecommunications

Computer Support Services

IS Project Manager, Aileen Burdick Project Office Manager, Jeanne Pasqualini Director of Systems Integration, Karen Arremony Senior Programmer/Analyst, Rogelio Echeverri Software Support Analyst, David Fontaine

Senior Software Programmer/Analyst, Jean Swiontek Senior Software Programmer/Analyst, Mary Vona

Programmer/Analyst, Pauline Zimmer Programmer/Analyst, Tejas Marvadi

Database Admin. & Info. Security Officer, Brian Walsh Database & Server Administrator, Ted Viadella

Manager, Kevin DiMinno

Computer Support Specialist, Mary Kallio

Manager, Ruth Seeley

Senior Computer Technician, Thomas Girard Hardware Technician, Michael Dreimiller

Computer Tech. Software & Config., Janet Hayes Senior Computer Network Technician, Gary Tiller Systems and Server Administrator, John Schaeffer

Systems Administrator, Bill Constantakos Systems Administrator, Kevin Northcutt Telephone Contractor, Jim Keller Switchboard Supervisor, Judy Schofield Web Administrator, Laurie Schaeffer Web Developer, Mike Friscia

Web Programmer, Tom Palazzo Web Content and Graphics, Amy Hannum

Web Support

# Director of Special Collections and Archives, Laurie Deredita

College Archives

Librarian Special Collections & Archives, Nova Seals

# 4. Team Level Mission Statements and Operational Responsibilities

### **Information Resources Team**

#### Team Mission

The Information Resources Team ensures the timely and continued availability of scholarly materials in all formats. Members of the team oversee the acquisition and maintenance of the library's collections, the creation and management of the bibliographic database and the physical processing of materials added to the collections.

In addition, the team supervises the use of the library's collections, obtains materials from outside sources as needed through interlibrary loan and shares resources with our extended community.

# **Operational Responsibilities**

# Collection Development

- Coordinate the selection and deselection of library materials in all formats
- Allocate and monitor the expenditure of funds for library materials
- Supervise the disposition of gift materials
- Prepare policy and management reports for collection development activities

### Liaison Activities

- Select materials in designated disciplines
- Teach bibliographic instruction classes in designated disciplines
- Communicate regularly with faculty in designated departments
- Assist with in-depth research problems in designated disciplines

# Acquisitions

- Plan and carry out the acquisition of monographs, multimedia and software
- Create and maintain catalog records for media material in the CTW database
- Create and maintain preliminary catalog records for monographs in the CTW database
- Process invoices for payment and monitor the expenditure of funds for monographs, media and software
- Maintain vendor relations
- Process gift materials for addition to the library's collections
- Prepare management reports of acquisitions activities

### Bibliographic Database Management

- Keep bibliographic database current and maintain quality control of bibliographic data
- Perform original cataloging, reclassification, and retrospective conversion

# Processing

- Supervise book preparation including "shelf-ready" books, MARCIVE government documents processing service, shelf preparation of videos, and book conservation
- Maintain New Book Shelf

## Serials

- Plan and carry out the acquisition and binding of serial materials
- Create and maintain catalog records for serial material in the CTW, AIMS, and OCLC databases
- · Maintain check-in records for serial materials and claim missing issues

- Maintain current periodical and newspaper area
- Process invoices and monitor the expenditure of funds for serial materials
- Maintain vendor relations
- Maintain license agreements for electronic products
- Prepare management reports of serials activities
- Maintain serials subscriptions and catalog serials for Greer Music Library

#### Electronic Access

- Maintain local Voyager integrated library system in cooperation with CTW Consortium staff and serve as System Administrator for the database.
- Establish and maintain links to electronic products on the library homepage
- Communicate regularly with Nelinet and other electronic vendors

### **Government Documents**

- Plan and carry out the acquisition of federal and state documents
- Maintain documents stacks
- Maintain and modify Marcive records in CTW database

### Circulation

- Staff the circulation desk during all hours the library is open
- Manage circulation of all print and non-print materials and selected equipment
- Maintain library stacks
- Provide major point of contact for customer service and campus information
- Prepare management reports of circulation activities
- Hire and manage student help for all library operations
- Coordinate management and security of the library physical facility
- Act as liaison to non-college borrowing groups

## Reserve

Process and oversee circulation of all reserve materials

### **CTW Circulation**

• Circulate books and provide copies of articles within the CTW Consortium

# Interlibrary Loan

- Plan and carry out all ILL operations, both lending and borrowing
- Establish policies and procedures for ILL
- Monitor and introduce new ILL technologies as they develop

# **Research Support and Instruction Team**

### Team Mission

The Research Support and Instruction Team directly supports the academic mission of the college by providing reference services and instruction that develop sound research practices and critical thinking skills and lay the groundwork for lifelong learning. This includes the development of information literacy skills essential in an age of rapidly developing information resources. The goal of the Research Support and Instruction Team is to assist students to: 1) identify their information needs; 2) access needed information using the appropriate tools and techniques for their problem solving and research; 3) evaluate information and its sources critically; 4) synthesize the information retrieved and incorporate it into their current knowledge base; 5) present information effectively to accomplish a specific purpose; and 6) integrate information literacy skills and concepts to approach lifelong learning needs into the curriculum. Members of the team work collaboratively with faculty to provide a wide variety of training and course-integrated learning activities to help students achieve these goals.

### **Operational Responsibilities**

# Research Support

- Provide traditional reference service using print and electronic resources to faculty, students, staff, and members of the local community
- Develop and maintain relevant online resources in support of all reference services

#### Instruction

- Provide instruction integrated into the curriculum in the use of library resources and services
- Develop instruction modules and research guides in collaboration with faculty, students, and librarians at Connecticut College
- Collaborate with the Information Resources Team to provide professional reference and instruction services to designated departments through the Library Liaison program

#### Collection Development

- Manage the print and non-print reference collection
- Coordinate the selection and de-selection of materials in the reference collection
- Select materials for designated disciplines through the Library Liaison program

### Government Documents

- Oversee the management and selection of state and federal documents
- Provide reference service and bibliographic instruction in the use of government documents
- Develop and maintain online resources in the use of government resources

#### Liaison Activities

- Select materials in designated subject areas
- Communicate regularly with faculty in designated departments
- Assist with in-depth research support in designated disciplines
- Work with faculty to provide integrated and course-related information literacy instruction

# **Professional Development**

 Participate in regional and national conferences and workshops on information literacy and library reference and instruction

- Participate in listservs and stay current with and contribute to the literature relating to information literacy and library reference and instruction
- Participate in Information Services task forces and committees
- Participate in campus-wide task forces and committees

# **Greer Music Library (branch library)**

The Greer Music Library is a branch of the Connecticut College Libraries and is currently organized within the Research Support and Instruction Team. The Greer Music Library supports the academic mission of the college through the provision of a full-service facility specializing in music and the interdisciplinary nature of the performing arts. Greer provides a full array of resources and services specializing in the needs of the music community at Connecticut College and the local community.

# **Operational Responsibilities**

# Research Support

 Provide subject specific reference service to faculty, students, staff, and members of the local community in Greer Music Library

#### Instruction

 Provide subject specific classroom bibliographic instruction in the use of Greer Music Library resources and services

### Collection Development

• Manage the print and non-print collection and coordinate the selection and de-selection of materials in the Greer Music Library

# Bibliographic Database Management

- Keep bibliographic database current and maintains quality control of bibliographic data pertaining to the Greer Music Library collection
- Perform original and copy cataloging, reclassification, and retrospective conversion of print and non-print materials in the Greer Music Library collection

# Liaison Activities

- Select materials in designated subject areas
- Communicate regularly with faculty in designated departments
- Assist with in-depth research support in designated disciplines

#### Acquisitions

- Plan and carry out the acquisition of monographic print and non-print materials for the Greer Music Library's collection
- Process invoices for payment and monitor the expenditures of funds for Greer Music Library material purchases
- Maintain relations with vendors supplying materials to the Greer Music Library
- Process gift materials for addition to the Greer Music Library's collection
- Prepare management reports for all Greer Music Library acquisitions

#### Circulation

- Staff the circulation desk during all hours that the Greer Music Library is open
- Manage the circulation of all print and non-print materials for Greer Music Library
- Provide the major point of contact for customer service and information regarding Greer Music Library and its resources and services
- Prepare management reports of circulation activities in Greer Music Library
- Hire and manage student assistants for all operations in Greer Music Library

- Coordinate management and security of Greer Music Library facilities
- Act as liaison to non-college borrowing groups in the Greer Music Library

# CTW Circulation and Interlibrary Loan

- Work with members of the Information Resources Team to coordinate the circulation of print and non-print materials from Greer Music Library's collection within the CTW Consortium
- Work with members of the Information Resources Team to coordinate the circulation of print and non-print materials from Greer Music Library's collection through Interlibrary Loan

#### In-house Exhibitions

 Prepare in-house exhibition of print and non-print materials from the Greer Music Library's collections

# **Equipment Management**

 Coordinate the purchase, maintenance, and use of computer workstations, printers, audio and video playback equipment to support the use of resources in the Greer Music Library

#### Reserve

Process and oversee circulation of all reserve materials in Greer Music Library

# Processing

- Supervise print and non-print material preparation for the Greer Music Library
- Prepare print materials for binding as required in the Greer Music Library collection

#### Serials

 Select and maintain the serials collection for Greer Music Library in cooperation with the Information Resources team

### **Professional Development**

- Participate in regional and national conferences and workshops on information literacy and library reference and instruction
- Participate in listservs and stay current with and contribute to the literature relating to information literacy and library reference and instruction
- Participate in Information Services task forces and committees
- Participate in campus-wide task forces and committees

# Special Collections and Archives Team

# Team Mission

The rare books and papers of historical, literary, or artistic significance in Special Collections offer a unique resource to scholars, and an opportunity usually found only in large university libraries for undergraduate students to use these materials. The papers and photographs in the College Archives that document college history provide an unparalleled resource to students and faculty. This experience can be a pivotal moment during a student's academic years.

Special Collections provides research assistance to members of the college community and to outside researchers using its unique book and manuscript collections. The College Archives manages and provides security for college records and provides access to these records to the college administration and to qualified researchers. The team also provides outreach through its newsletter and many exhibitions, lectures, and special events that contribute to the intellectual life of the college.

### **Operational Responsibilities**

# Research Support

- Use the books and manuscript collections in Special Collections and the materials dealing with college history in the College Archives in the curriculum wherever possible by giving instruction and presentations to classes in many disciplines and by supporting individual student and faculty projects
- Provide research assistance and monitor the use of Special Collections and Archives materials

#### Preservation

- Monitor the preservation of information in its different formats, paper, microform, digital, etc., as well as artifacts of the college's history
- Take the necessary preventive and remedial steps to preserve these materials
- Digitize materials both to preserve and to make these materials more widely available

#### Records Management

- Work with departments to create retention plans as part of the college records management program
- Provide security for college records and make them accessible to qualified users
- Create finding aids for archival materials

### Outreach

- Create and curate exhibitions in the Charles E. Shain Library
- Plan and sponsor lectures and special events
- Produce The Friends of the Library newsletter
- Administer The Friends of the Library group

### Collection Management

 Acquire new materials through purchase and by gift to enhance existing collections and to pursue new directions

# **Instructional Technology Team**

# Team Mission

The Instructional Technology team provides support and resources for the use of technology in the curriculum. Support includes assistance with digitizing and editing course materials for use online, advising faculty as to which technologies can be used to meet their teaching and learning objectives, and providing instruction on the use of technologies in teaching and research. The team supports the media, equipment, hardware, and software used in computer labs, classrooms, and instructional technology facilities. The team works in partnership with faculty to explore how new technologies can be used in the curriculum. The Instructional Technology team coordinates its efforts with the Center for Teaching and Learning.

# **Operational Responsibilities**

Support for technology in teaching and research

- Advise faculty on using technology, including projects and pilot programs for innovative ways to use technology, to enhance teaching, or to provide new resources
- Develop and support Web-based course resources, including course management systems, to integrate the power of information technology into the curriculum
- Work in partnership with faculty for course design to incorporate instructional technology into the curriculum

# Technology instruction

 Provide workshops and seminars for faculty on using academic technology resources such as hardware, software, and media

# Digital Media Curriculum Creation Center

- Provide faculty with the hardware, software, and staff support to produce high-quality digital materials for use in the curriculum
- Maintain the center's resources including media creation systems for digitizing and editing text, graphics, audio, and video

# Classroom upgrading with technology

• Research options for enhancing teaching and learning with technology in the classroom and, in consultation with faculty, install technology in classrooms

### Computer Classrooms

- Oversee academic computers in computer labs, including discipline-specific labs, and in the library
- · Maintains software in classrooms, computer classrooms, and on academic servers

## Visual Resources Library

- Serve faculty in preparing and presenting images for use in lectures and online course materials
- Maintain and preserve the library's large collection of slides of art, architecture, and decorative arts and a growing collection of digital images

# Language Laboratory

- Serve faculty and students in foreign language learning and culture
- Provide resources for audio listening and recording, video viewing, computers for use with language applications, a broadcast viewing lounge, and other language and culture learning materials

# Media Services

- Provide free media services for all classroom activities and fee based support for all other campus and external events that require AV services
- Responsible for equipment delivery, videotaping, tape duplication, and equipment loan
- Maintain and repair college-owned media equipment
- Oversee campus cable television system

# **Technical Support Team**

#### **Team Mission**

The mission of the Technical Support Team is to support the educational goals of Connecticut College by providing and supporting technology resources including college-owned computers, the computer network, the administrative information system, Web administration, the telephone system, and help desk service. In addition, the mission of the Administrative Information Systems Group is to provide leadership in the implementation, support, and use of robust, quality information technology services to support the administrative information needs of the college. We work in partnership with departments and offices to support their missions of providing effectively for the faculty, staff, students, and other members of the college community.

# **Operational Responsibilities**

# Administrative Information Systems

- Provide information systems, services, and technology resources with a focus on the integration and integrity of these administrative systems
- Provide analysis, design, programming, consulting, and implementation services in the provision and use of information technology solutions
- Provide tools, training, and consultation in the use of administrative information systems to enable community members to effectively perform their roles and responsibilities at the college
- Strive to provide these services and expertise with a strong customer orientation with attention to excellence, quality service, and responsiveness
- Support the implementation of SCT Banner Software and related administrative computing products
- Support and maintain SCT Banner production system for the entire campus
- Support and maintain AIMS and PowerFaids production systems for the rest of the campus
- Investigate, plan for, and provide project management and technical expertise for future implementation efforts of administrative information systems
- Educate and train members of the community on functionality and capabilities of administrative information systems; assist members of the community to use technology to work smarter
- Establish and maintain stable and current software and database infrastructure for administrative systems and institutional databases
- Manage programming and analysis requests to focus on using our administrative information systems most effectively and develop those modifications and enhancements that are strategic priorities of the college

# Computer Inventory Management

- Oversee acquisition, management, and deployment of college-owned or leased computer hardware
- Negotiate and purchase all productivity software products
- Manage the software and software licenses on college-owned computers
- Manage the Outlook/Exchange administrative conversion program and conduct applicable training classes

# Help Desk

- Provide Level One computer and network problem resolution
- Assign problems to staff and track the repair process

# Computer Support

- Provide Level Two computer and network problem resolution
- Oversee repair and reassignment of college-owned computer hardware
- Troubleshoot and deploy anti-virus software updates

### Online Computer Purchasing

- Oversee vendor agreements for college authorized student online computer purchases
- Maintain online information about student computer purchasing
- Provide information and assistance to students who need warrantee repairs

## Network and Servers

- Provide network hardware and technical support for all college departments
- Support e-mail and Internet interaction
- Provide bandwidth management for campus Internet connectivity
- Provide, maintain, and monitor network security devices and software

#### Web Administration

- Provide technical support for Web server hardware and software
- Support Web server accounts and Web site assistance
- Web Administrator serves as the point of contact for the update and management of CamelWeb and the IS Web site
- Partner with College Relations to maintain the public presence of the college
- Partner with CELS to create and maintain e-Portfolio
- Design and manage Web page functionality college-wide

### Telecommunications

- Provide local and long-distance telephone service and voice mail for every student, faculty, and staff member
- Coordinate college cellular telephone agreements with external vendors
- Provide coverage of college switchboard during business hours, staffing with trained student assistants during times when the switchboard operator works on other projects such as maintaining the college directory information and assisting with telecommunications work in switch room, dorms, and office

## iConn Project Team

# Team Mission

The mission of the iConn Project Team is to implement and monitor new administrative information system(s) to support both the business processes and the overall Connecticut College mission through superior access to and manipulation of data via the implementation of the SunGard SCT Banner Advancement, Finance, Financial Aid, Human Resources/Payroll, and Student suite of administrative software and the continuing implementation of additional and critical third party software system for those administrative offices that SunGard SCT does not provide software services to support, for example Dining Services, Physical Plant, and Events.

# **Operational Responsibilities**

- Provide project management, in a collegial manner, to implement an integrated, transaction-based business solution that supports college operations. Systems currently in place are the SunGard Higher Education suite of baseline modules, NuVisions Systems for Dining Services, Events Management Systems (EMS), and TMA (the Physical Plant solution)
- Manage the second phase of the multi-year project implementation so that it is completed
  on time and on budget. Begin working on the planning, implementation, and building of
  additional functionality within each system and provide greater Web access to information
  for students, faculty, and staff
- Provide students, faculty, and staff quick and easy access to accurate and timely data and powerful analytical and communication tools, so they can successfully complete their assigned duties
- Research and provide opportunities for the implementation and use of existing and future technology utilizing the SunGard Higher Education delivered product
- Provide staff, faculty, and students with appropriate training throughout the implementation to ensure effective and efficient use of the integrated system
- Review and revise current college business practices that are not supported by the new system to deliver the same or improved services in an alternate way and avoid customization
- Identify and minimize risks and provide contingency planning to maintain the project schedule