

TECHNOLOGY PLAN

2004

COLLEGE OF EDUCATION AND HUMAN SERVICES

WRIGHT STATE UNIVERSITY

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NOTE: Within this document the * symbol is used to indicate areas where content juxtaposes with College of Education and Human Services and Wright State University *Strategic Goals*.

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I. Shared Vision

Proactive leadership and administrative support from the entire system¹.

A. The mission of the College is to prepare professionals to meet the educational and human services needs of a diverse, democratic society*.

We believe that an empowering technological environment will assist faculty², staff, and students in the completion of this mission. Technology possesses the potential to enhance teaching, learning, and administrative functions. Technology can allow one to access more information faster and more efficiently. Technology can fundamentally change the ways people communicate and collaborate. It also permits more options for teaching and learning. It also permits us to expand our partnerships and collaborations regionally and globally*. In this way our faculty and students can and should use technology to enhance their personal and professional effectiveness.

The compelling needs of our current and future students will be to obtain knowledge when needed or desired; to discover and use more varied communication and collaborative methods; to assess and reinvent efficient means of using current and future technology appropriately; and update one's skills and knowledge in the light of new developments. All learning environments must promote the active construction of knowledge by providing administrators, teachers, and students with the ability to use technology effectively. Technology must not, however, dictate teaching and learning options; it must enhance those options. Technology may threaten what society deems important and sacred. Educators must develop a voice that will help solve these problems and minimize these threats. Approaches to teaching, learning, and educational leadership will change as technology evolves. We are committed to using technology with skill and wisdom.

The U.S. Department of Education has pledged to meet the following goals³:

- all students will have access to information technology in their classrooms, schools, communities, and homes,
- all teachers will use technology effectively to help students achieve high academic skills,
- all students will have technology and information literacy skills,
- research and evaluation will improve the next generation of technology applications for teaching and learning, and
- digital content and networked applications will transform teaching and learning.

In October of 2003 the US Department of Education published a *Retrospective on Twenty Years of Educational Technology*⁴. This report identifies explicit recommendations based on

¹ International Society for Technology in Education (ISTE) Essential Conditions for Teacher Preparation. http://cnets.iste.org/teachers/t_esscond.html

NOTE too that this applies to administrators. http://cnets.iste.org/administrators/a_esscond.html

² The term faculty extends to full-time faculty, administrative faculty, and adjunct faculty.

³ U.S. Department of Education Office of Educational Technology. (2000). E-learning. Washington, DC. U.S. Department of Education. <http://www.ed.gov/Technology/elearning/index.html>

⁴ Retrospective on Twenty Years of Educational Technology http://www.nationaledtechplan.org/docs_and_pdf/20yearsdotherevised.pdf

28 highly regarded reports. The College of Education and Human Services commits to incorporating these keys within existing and future programs:

1. Improve access, connectivity, and requisite infrastructure [including extensions beyond education to government, business, and non-profits] * ;
2. Create and use more, high-quality content and software;
3. Provide more, sustained, high-quality professional development and overall support for teachers seeking to innovate and grow in this domain;
4. Seek internal and external funding from multiple sources for a range of relevant activities * ;
5. Define and promote the roles of multiple stakeholders, including the public and private sectors * ;
6. Increase and diversify research, evaluation, and assessment * ; and
7. Review, revise, and update regulations and policy that affect in-school use of technology, particularly regarding privacy, and security based on State, National, and International standards * .

The College of Education and Human Services will implement this college technology plan over the next five years (2004 - 2009) with annual reviews done by the College Technology Committee. In 2004 Wright State University's Strategic Plan and the College of Education and Human services' Strategic Plan were incorporated into this document. This document will help identify and establish technology priorities based upon the College's and University's strategic plans.

Priorities include: linking to the university systems, information/data sharing, architecture standards, and internal communication needs. In planning for and using technology, it is expected that administrators, faculty, and staff will recognize that technology takes time and effort to learn and integrate technology into instruction and the workplace. It is expected that students in general education and content major classes will encounter faculty modeling the appropriate use of technology. Towards this end, the College of Education and Human Services' Technology Committee has developed and will continue to offer informational sessions through the use of *Special Interest Group* (SIG) content for CEHS faculty, staff, and administrators in an effort to continue to build on a distinctive learning experience * .

B. The College Technology Plan reflects and reinforces the conceptual model ⁵ developed and adopted by the college.

Strand 4 of the CEHS Conceptual Framework states that "Teacher candidates and candidates for professional school roles apply appropriate technology to add value to the learning process". The technology strand represents the unit's commitment to assuring professional educators and candidates are knowledgeable and able to make thoughtful, appropriate applications of technology to add value to the learning process, to determine the essential conditions for effective use, and to understand its powerful role in shaping individual lives and society.

⁵ Note: indicators to conceptual and strategic plans for the University and the College of Education and Human Services are indicated throughout this document by an *.

Technology interweaves with the other five strands in the conceptual framework to develop the art and science of teaching/leadership/counseling. Technology is an important component in making appropriate 1) content and 2) pedagogy decisions related to appropriate assignments and activities, research requirements, and information literacy requirements. Technology can support the application of 3) emotional intelligence to enhance student learning for 4) diverse populations through innovative options for instruction and assessment. Technologies can also support 5) professionalism by facilitating productivity, planning, and administrative functions.

II. Access

Educators will have access to current technologies, software, and telecommunications.

A. All full-time faculty and staff will have access to basic technologies⁶.

These technologies include:

1. A desktop workstation possessing at least the university minimum standard configuration and consisting of a desktop computer and printer that is networked (i.e. local-area, university-wide, and Internet);
2. Access to a copy machine, advanced telephone system with voice mail, access to fax machines and devices for scanning documents and digitizing images;
3. Access to contemporary data acquisition, storage, and viewing devices as well as associated hardware and software for using this equipment. A number of basic technologies have unambiguous usefulness for research, teaching, service, and administration. Easy access to these technologies can improve the quality and efficiency of the College workplace.

B. All learning environments will be equipped with, or have access to, contemporary instructional hardware.

These technologies include:

1. traditional media such as overhead projectors, audio CD players, VCRs and monitors,
2. computer workstations (wireless or networked),
3. Internet access,
4. hardware for projection from computer/video output,
5. appropriate lighting and audio systems, and
6. distance learning systems and infrastructure that matches industry standards and is compatible with the Lake Campus and other off campus teaching locations.

All learning environments should promote the active construction of knowledge by providing teachers and students with the ability to use a range of effective learning technologies. Technology per se should not drive instruction, but appropriate technologies should be

⁶ Computing and Telecommunications Services (CATS) provides service and support for university telephones, campus networking, Internet access, and administrative and academic computing resources.
<http://www.cats.wright.edu>

available for use in enriching the instructional process. Distance learning offers an efficient, alternative mode of academic instruction that will conserve resources, facilitate resource sharing, expand the curriculum, generate revenue, and enhance enrollments by reaching out to a population of learners that are otherwise prohibited from enrollment at Wright State University because of distance or time constraints.

C. Faculty, staff and students will have access to portable technologies that will be used off-campus or in non-traditional environments in fulfilling faculty missions of teaching, research, and service, staff missions of administration and service, and student missions of learning.

These technologies include:

1. laptop computers, including hardware for network connectivity (e.g. modem or local area network card and/or wireless capabilities),
2. projection capabilities for presentations,
3. still and video digital cameras and associated equipment, and
4. Internet access.

The service mission of the College requires that we bring our knowledge to schools, human service agencies, and other entities throughout the region. Working at off-campus locations is increasingly required for a variety of instructional and research purposes. Student enhanced learning is anticipated at field and clinical sites as a result of exposure to and use of technology.

D. Faculty, staff and students will have access to a range of basic software programs.

These software include the following:

1. operating system software,
2. word processing software,
3. database software,
4. spreadsheet software,
5. presentation software,
6. graphics and audio software,
7. digitizing software,
8. network software,
9. multimedia, hypermedia, and authoring software,
10. statistical analysis software, and
11. other software deemed appropriate and vital to achieving the goals and dispositions identified in CEHS curricula.

Hardware is essentially useless if appropriate software and other forms of prepared media are unavailable.

E. Faculty and students will have access to profession-specific advanced technologies.

These technologies include the following:

1. file server and network/wireless software for instructional use,

2. scoring and interpretation software for psychometric measures,
3. imaging and digitizing technology,
4. laser and fiber optics communications equipment,
5. motion analysis systems,
6. video conferencing systems,
7. optical character recognition (OCR) and image scanning software,
8. distributed learning systems,
9. color printers, and
10. school models of technology.

Technology in most professions continues to undergo rapid technological change. College of Education and Human Service graduates should be exposed to the most advanced technology specific to their profession. Professional studies should include concepts and skills that prepare students to use technology wisely.

F. The College will incorporate guidelines provided by Disability Services to assure that students, faculty, and staff with disabilities have access to technical equipment^{7 8 9}.

The College has developed and supports an adaptive lab that houses various computer platforms, adaptive and augmentative devices, and peripherals. The College works collaboratively with the Office of Disability Services to select, support and utilize these resources. It is expected that programs in Rehabilitation, Special Education, and Workforce Education will be prime users of this facility for teaching purposes. More than this, however, WSU serves a wide variety of students, some needing technology augmentation devices and enjoys a national reputation for being an accessible campus. Access to such services ensures that all students can strive toward their potential. The University and the College attempts to model appropriate policies and services for all faculty, staff, and students.

G. Exemplary library, curricular and electronic information resources will be available^{10 11}.

The Paul Laurence Library reference department designates a College Liaison who locates resources and develops units of instruction and is available to assist and support College faculty and students.

H. Campus facilities and College partner schools* have exemplary facilities to support technology infusion into instruction.¹²

⁷ The university's mission is to provide all users with a functional, accessible, interactive *web* experience. (see, <http://www.wright.edu/web/access>)

⁸ Accessibility Information: The Web at WSU. <http://www.wright.edu/web/access/resources.html>

⁹ Disability Services (see, http://www.wright.edu/students/dis_services/).

¹⁰ "Faculty and candidates have access to exemplary library, curricular, and electronic information resources that not only serve the unit, but also a broader constituency", NCATE Standard 6 Unit Governance and Resources; Unit Resources including Technology.

¹¹ <http://www.libraries.wright.edu/>

¹² "The unit has outstanding facilities on campus and with partner schools to support candidates in meeting standards. Facilities support the most recent developments in technology that allow faculty to model the use of technology and candidates to practice its use for instructional purposes", NCATE Standard 6 Unit Governance and Resources; Unit Facilities.

During July 2000, the College of Education and Human Services moved into a new facility. The renovation of Allyn Hall, lasting 18 months, was the result of student, faculty, and staff involvement in the planning and design of the facility. A video kiosk on the first floor hallway displays important College dates, information, and office locations or programs including administration, faculty, and staff.

The entire first floor features the Educational Resource Center (ERC) which includes an updated, current instructional materials collection, a student reading area, a media production lab, a workroom and student worker lounge, office for ERC staff, a test file room, and equipment storage area, a conference room, and a professional reading area for faculty. A large software collection of P-12 software is accessible in the ERC. A central research area provides student and faculty Internet access, access to OhioLink and the Dunbar Library.

In addition to 2 computer labs, 6 portable carts containing laptop computers are available for check out by faculty from the ERC. Two carts contain PCs, and 4 carts contain Macintoshes. All laptops are configured for wireless connection to the Internet. Wireless hubs placed in the ceilings permit the use of wireless technology throughout the building. In addition, the Hanger, a first floor restaurant offers wireless connection to the Internet (see Wireless Initiatives).

The second floor houses seven classrooms, a distance learning classroom, and two computer labs. All classrooms have tables and chairs, carpeting, clocks, pencil sharpeners, and Internet access. Six of the seven classrooms are electronic classrooms that have a podium containing both a Mac and a PC computer with a ceiling-mounted projection unit, a campus telephone, large screen, and ceiling speakers. One of the electronic classrooms has a tile floor and a countertop with two sinks. Science, and math methods classes are typically scheduled in this classroom.

The distance learning classroom is equipped similarly to the other electronic classrooms with the addition of a second ceiling-mounted projection unit, acoustical wall treatment, cameras, and microphones. The university uses H.323 protocol (IP) for access. Allyn Hall classrooms also Macintosh and PC computers with switcher, LCD monitor, digital projector, CD-ROM/DVD drives for PC and Mac, Internal Zip drives for PC and Mac, VCR, Overhead Projector w/ acetate, and Stereo Audio System.

The two networked computer labs each contain 25 Mac student station computers, printers, scanners, and other peripherals. The 255A lab houses 4 Windows computers and 4 Macintosh computers along the outer walls. 255A is available for instruction and is maintained by the College. 259A is maintained by Computer and Telecommunications Services (CaTS) and is a 24/7 open lab but may be scheduled for instruction when needed.

The College's technical support staff is housed next to the second floor labs. College servers, equipment, and software share space with workers whose tasks are equipment and network repair, maintenance and storage, Web support, and new equipment preparation.

The third floor houses the Offices of Student Services, Graduate Studies, Professional Field Experiences, and the Department of Teacher Education. There is a room on the floor that provides access to a new copy machine, mailboxes, refrigerator, sink, and a water cooler. Full-time and part-time faculty and staff have access to this room. There is an electronic classroom

on this floor next to a seminar room and a conference room. Two-way mirrors in each of these three rooms permit observations and clinical study when necessary. The three rooms also have audio capability so that voices as well as images can be heard and seen. The fourth floor houses the Department of Educational Leadership, the Division of Professional Practice and Research, and the Office of the Dean. There are two electronic classrooms on this floor. The main College reception area and a conference room are in the middle of the fourth floor coupled with a mail/copy/coffee room.

Four conference rooms in the building are Internet accessible and two contain video conferencing equipment again using the H.323 protocol. All of the hallways and computer labs contain ceiling-mounted security cameras and courtesy telephones are on first, third, and fourth floor hallways.

The instructional space in the Department of Health, Physical Education, and Recreation, located in the Nutter Center, has been renovated. The second floor houses three electronic classrooms. Each of these classrooms feature podiums with Macintosh and PC computers, a ceiling-mounted digital projector with large white screen, a campus telephone, white boards, and ceiling speakers. All podiums have connection to the Internet, cable television, and related technologies. In addition, a laboratory on the third floor has been converted to an electronic classroom similar to those on the second floor. All four classrooms have wireless Internet.

In January of 2004 the Department of Human services located in the Creative Arts Center received an electronic classroom identical to those of HPR. The Department of Human Services also houses an adaptive laboratory (066 CAC) that has eight computers (6 PCs and 2 Macintoshes) and a wide variety of adaptive equipment. This adaptive laboratory is available for individual and class use. It is advised that a reservation be made to insure that the adaptive laboratory is available.

All full-time faculty and staff in the College have Macintosh desktop computers and have Internet accounts and access to a large array of software: *Microsoft Office*, *FileMaker Pro*, and other Microsoft products. Graduate assistants, student workers, and part-time faculty and staff have appropriate equipment and software on their desktops.

I. Wireless and ubiquitous information and communication technology

All classrooms, halls, offices, and restaurant spaces in Allyn Hall are fully Internet connective. The acquisition and infusion of six wireless carts create a situation where faculty and students can use laptops in every classroom setting. Carts permit CEHS faculty to transport Internet connective laptops to most campus instructional spaces. Alan Kay of Apple calls ubiquitous computing the 'Third Paradigm' or the age of calm technology, when technology recedes into the background of our lives and supports enhancements to the ways we work and learn.

The Massachusetts Institute of Technology research, named the *Oxygen Project*, seeks to use computers as all-pervading and invisible ways much like the air we breathe. We must remain watchful of such initiatives and their potential to impact within the educational arena. The Technology Committee will remain vigilant to emerging trends and possibilities for using

educational technology effectively. The MIT Project Oxygen seeks to integrate eight new technologies¹³.

1. A prototype hand-held computer currently the size of two paperback books, which will likely shrink to cell-phone size with time.
2. A small computer that can be built into the walls of homes, offices, or even the trunks of cars and that also control devices such as phones, refrigerators, sensors, and recording devices.
3. Self-organizing and adapting as users move from place to place.
4. Computers with the ability to accept verbal input, understand the meaning of the language, and generate spoken output.
5. The use of Web Bots or "knowledge access technology" will find information on the Internet.
6. Technology-based macros to create scripts for various routine jobs and report information to us.
7. A functional secretary-like or court reporter technology to maintain records in sound or video format.
8. The use of new microchips that adapt and customize itself depending on the task and application.

Many collaborating organizations and groups continue work to build on MIT's Oxygen Project¹⁴ Information from these and similar organizations, initiatives, or programs will be considered for presentation at CEHS SIGs. Vision and participation will help develop a distinctive learning experience*.

III. Skilled Educators and Staff

Educators are skilled in the use of technology for learning.

A. Faculty will infuse technology into their teaching pedagogy and employ a wide range of technological tools and software as part of their instructional repertoires¹⁵.

All faculty and students are expected to avail themselves of technology resources. The College of Education and Human Services actively solicits faculty and student input regarding continued development of technology initiatives that have the potential to enhance teaching and learning processes. Towards this end, the CEHS technology will seek and support graduate and undergraduate student representatives.

In the spring of 2004 Wright State University will launch the campus Portal, Wright Information, News, and Group Services (WINGS)., When the Portal is fully deployed in 2006 WSU's faculty, staff, students, and alumni will enter the Fifth Generation of Distance

¹³ *Beyond Desktop Computing - MIT's Oxygen Project* <http://dsonline.computer.org/archives/ds100/ds1newprint.htm>

¹⁴ Ubiquitous computing-related sites and projects. <http://www.cs.bell-labs.com/who/cyoung/ubiq.html>

¹⁵ Wright State University's Center for Teaching and Learning. <http://www.wright.edu/ctl>

Education¹⁶ According to J. C. Taylor, “Fifth generation e-learning is likely to be irresistible to students, politicians and the business community alike - it is also inexorable.”^{*}

B. Systems will be developed and maintained that will facilitate administrative work.

CEHS staff advisors and other support staff have developed and maintained systems which facilitate the administrative work associated with a student’s admission, program activity, and completion. Data bases that track student progress and automate routine clerical activity are in place and continue to evolve over time. In the Fall of 2001 the College implemented a Degree Audit system for undergraduate degree programs via a secure web site. Students, staff, and faculty will be able to query an undergraduate student’s program and receive information regarding completion requirements and other audit functions.

In the winter of 2004 the University implemented a degree audit system (DARS) for undergraduate degree students via ROX. With DARS, students are able to query their program of study and receive information regarding completion requirements and other audit functions. While no graduate programs have yet been implemented, this service is an extension of a DARS function that has been in place since 2001 and represents the implementation of an “*end user interface*”. Interested faculty and staff can have their own ADS account. Training may be obtained by contacting the by Office of Student Services in the College of Education & Human Services.

C. Professional education faculty will incorporate appropriate performance assessments, diversity^{*} and technology into their teaching¹⁷.

Coursework, field experiences, clinical practices, and assessment strategies will reflect the University’s and the College’s conceptual frameworks.

D. Assessment will be appropriate for learning outcomes, students, and *best practices*¹⁸.

The term “best practices” is sometimes used to indicate appropriate and exemplary practices. We recognize that there is no single “best practice”. There are many exemplary practices that technology can help create and access. Best Practices are determined by a skilled educator and human services professional who working within an appropriate infrastructure provides the following for one’s constituents:

- Serve diverse and culturally different students from differing race, class, and ethnicity^{*} ;
- Perform research and scholarship that address societal needs regionally and beyond WSU’s traditional region^{*} ;
- Engage in community outreach that improves the quality of education for a lifetime^{*} .

The College of Education and Human Services go beyond providing education and services for only educators and administrators. The CEHS offers services and education for human services professionals and organizational leaders. Common for both Human Service professionals,

¹⁶ *Fifth Generation Distance Education*, <http://www.icde.org/oslo/icde.nsf/0/FD5130FDCE096DA341256C3F00397748?>

¹⁷ “Teaching by the professional education faculty reflects the unit’s conceptual framework(s), incorporates appropriate performance assessments, and integrates diversity and technology throughout coursework, field experiences, and clinical practices”. NCATE Standard 5 Faculty Qualifications, Performance, and Development; Modeling Best Professional Practices in Teaching

¹⁸ “Faculty understand assessment technology, use multiple forms of assessments in determining their effectiveness, and use the data to improve their practice”, NCATE Standard 5 Faculty Qualifications, Performance, and Development; Modeling Best Professional Practices in Teaching

organizational leaders, and educators, *best practice* requires that one's professional actions are dedicated to the offering of effective service or education, the removal of barriers, and the maintenance of effective project management (i.e., documentation of planning and effective actions).¹⁹ Technology helps but does not dictate procedures.

IV. Professional Development

Educators have consistent access to professional development in support of technology use in teaching and learning.

A. Faculty, staff and students will be provided with adequate opportunities and environments to gain or update new technology skills and knowledge²⁰.

Opportunities will be specified at the department or unit level, and will include:

1. instructional classes and workshops for students that will provide basic skills in computer use, word processing, multimedia, distributed learning, and electronic mail;
2. release time, re-assigned work loads and/or the provision of summer salary to compensate faculty and staff for their efforts to enhance technology-related skills;
3. continued and growing support for the Educational Resource Center (ERC) and the Student Technical Assistance Center (STAC) which provides an environment in which students, faculty, and staff enhance and expand opportunities for learning and teaching by accessing an ever-increasing and changing array of resources, information, and knowledge. As a result of rapid advances and changes in technology, frequent continuing education opportunities are needed if the College is to maintain a leadership role in the educational and human service community.
 - The ERC, located in Allyn Hall, assists students, faculty, and staff by facilitating educational innovation and promoting the dissemination of technology-based instruction and learning throughout the College and partnership sites. Stress is placed upon providing student access to informational resources, enabling collaborative and self-directed learner-centered activities, fostering efforts to broaden the potential of distributed learning, and facilitating effective teaching approaches for those with disabilities.
 - STAC, located in the Dunbar Library on the main campus of Wright State University provides students with support and training in the use of a wide variety of contemporary technology.

B. The College will continue to pursue incentives for faculty in terms of release time for professional development, new course development, and recognition for experimental teaching at times of tenure and merit review²¹.

The College will work with the University toward recognition that electronic media such as CD-ROMs, videos, computer programs, etc. crafted by faculty to provide extensive student use of computers and other technology are scholarly products that can be the equivalent of

¹⁹ Improving Human Services through Technology, Human Services advisory Group.

<http://www.gao.gov/special.pubs/GAO-02-121/ap9.pdf> and <http://www.itaa.org/es/cne/hsitag.htm>

²⁰ Cats at <http://www.wright.edu/cats/train/> University Library at www.libraries.wright.edu/libnet/dl and CTL at <http://www.wright.edu/ctl/workshops/index.html>

²¹ American Association of University Professors. www.wright.edu/admin/aaup/aaup.html

peer-reviewed articles for annual merit and promotion and tenure decisions providing such projects have been subjected to appropriate peer review.

C. The College will compensate faculty to develop and deliver online courses.²²

Developing and delivering online courses takes time and effort. There is a learning curve for faculty unfamiliar with this mode of instruction. The University provides training and support for use of WebCT and the Dunbar Library provides additional online support for distance classes, learners, and faculty.

Wright State University and the American Association of University Professors in a *Side Letter on Compensation for Distance Learning*²³ have agreed to the terms for compensation or course reduction relative to the planning and delivery of distance learning. For teaching a video-based or IVDL distance learning course, however, there is no additional compensation unless the Dean approves an offer of compensation.

V. Technical Assistance

Educators have technical assistance in maintaining and using the technology.

A. The College will provide trained support personnel on site. Systems will be implemented to assure a prompt response when failure of hardware or software interrupts the work of faculty, staff, or students.

The College employs two full-time technical support personnel in addition to 40 hours a week support by student workers. The technical support office is located on the second floor of Allyn Hall close to most College classrooms and two computer labs. One of the full-time technical support persons spends a scheduled time period each week at the Health, Physical Education and Recreation department (Nutter Center) and the Human Services department (Creative Arts Center).

Increased use of advanced technology throughout the College necessitates an increased amount of support to install, maintain, repair, and provide assistance with such technology. The 1996 WSU Information Technology Planning Committee recommended an educational resources support team for every 60 faculty members. The team would consist of a technical support specialist and an instructional development specialist. They would provide leadership in the research, purchase, configuration, network administration, and continuing maintenance of technology utilized for instructional purposes. They would also consult with and train faculty to use technology to achieve specific course objectives.

B. Support personnel will install, maintain, repair and provide technical support for the technology used by the College.

The University's webmaster is the link into the University web site. The College will maintain some servers related to research and special projects space for faculty, program, department, and main college homepages will be located on the University's server. The chief administrator for each department, division, office area is responsible for maintaining current

²² "Formal policies and procedures have been established to include on-line course delivery in determining faculty load", NCATE Standard 6 Unit Governance and Resources; Personnel

²³ *Side Letter on Compensation for Distance Learning*, <http://www.wright.edu/admin/aaup/Contract.html#C>

and accurate information on their respective web site. *Out of date* information will be removed from the web. Each department, division, office will assign one person to be responsible for their webpage(s) accuracy and content timeliness. Access and ability to change web information will be accorded to the individual responsible for maintaining each area.

VI. Content Standards and Curriculum Resources

Educators are knowledgeable in their subject matter and current in the content standards and teaching methodologies in their disciplines.

A. Standards and curriculum must match the dynamic nature of current technology.

Adherence to standards and the appropriate use of evolving technology resources creates a dynamic tension within the teaching-learning interchange. When technology is mixed with teaching and learning, these dynamics create a potentially different experience. To creatively measure student artifacts, faculty and students must be permitted to express their adherence to those standards in original and innovative ways. All faculty and students are expected to document instances where deviation from traditional standards occurs.

B. All teacher, human service, and other professional candidates acquire competencies in basic computer/technology operations, in personal and professional uses of technology, and in the application of technology for instruction.

Benchmark indicators have been developed for teacher and human service candidates based on NCATE/ISTE, CACREP, and CORE standards.

C. All candidates should be aware of the specific outcomes for the knowledge, skills, and dispositions acquired in their programs of study that are essential for successful performance in a technology enriched P-12 classroom or human service agency.

Expanded clinical experiences and strong links between the College and the Colleges of Science and Mathematics and Liberal Arts will promote awareness of 'best practice'. NCATE standards call for successful examples of P-12 students' performance assessments that have been impacted by teacher education students' presence in their classroom.

D. Using appropriate technologies, undergraduate and graduate students will be able to develop and deliver content to their P-12 students and faculties in clear and compelling ways²⁴.

Teacher education candidates need to see examples of "best practice" both in their campus classrooms and in their field experiences. In turn, they should be able to model these strategies for their learners, P-12 students, and educators.

E. Improved student learning in P-12 schools is a central focus.^{25 26}

²⁴ "Teacher candidates...present the content to students in challenging, clear, and compelling ways and integrate technology appropriately", NCATE Standard I Candidate Knowledge, Skills, and Dispositions; Pedagogical Content Knowledge for Teacher Candidates

²⁵ "Candidates...collect and analyze data related to their work, reflect on their practice, and use research and technology to support and improve student learning", NCATE Standard 1 Candidate Knowledge, Skills, and Dispositions; Professional Knowledge and Skills for Other School Personnel

²⁶ Ohio Department of Education, BEST, and the National Commission on Teaching & America's Future

One clear message that has emerged from educational research is that high-quality teachers make a difference in student learning.

VII. Student-Centered Teaching

Teaching in all settings encompasses student-centered approaches to learning.

A. Learning experiences will be student-centered in and out of the formal classroom.

We recognize that the measure of student competencies are conducted by review of the students' knowledge, skill, and attitudinal artifacts within formal traditional classes, by formal tests, review audits, and activities outside a formal class. The College of Education and Human Services has a responsibility to document how teaching and learning *differ* as a result of technology. Outside the classroom student-learning methodologies will be supported by the Student Technology Assistance Center (STAC) located in the Dunbar Library and by field placement artifacts and evidence.

B. Technology needs to be readily accessible for prospective teachers and human services providers.

Prospective teachers and human service providers need to learn to use technology in ways that are directly related to both teaching and learning situations. The key is for instructors to model appropriate technology use and for prospective professionals to have frequent opportunities to practice using technologies as teaching and learning tools. It is expected that students experience the appropriate use of technologies in field and clinical experiences.

VIII. Assessment

There is continuous assessment of the effectiveness of technology for learning.

A. The College Technology Committee is charged with the oversight of the long-range technology plan and to review and revise the plan on an annual basis with final approval provided by the entire College.

The College will appoint a Technology Committee representative of College constituents that will meet on a regular basis during each academic year. The College Technology Committee will annually review this plan for the College that will be communicated and approved by the entire College faculty and staff. The following questions will be examined:

1. Were goals established and met?
2. Was the plan fully implemented?
3. Is the hardware and software being used?
4. What has been the faculty, student, staff response?
5. Has an implementation timeline been followed?
6. Have the new technologies been accepted?
7. What are new areas that need to be added?
8. What areas need to be modified?

This report, conducted by the CEHS Technology Committee will be submitted to the Technology Committee and to the Associate Dean of the CEHS.

B. An annual evaluation will be conducted to determine the quality and effectiveness of the technology infrastructure, support, services, and impact on teaching.

Changes in how faculty and students assess themselves and each other are vital to the integration of technology into education and human service preparation programs. Using technology effectively can help faculty restructure their classrooms and move from a teacher-centered lecture approach to a more learner-centered inquiry approach. When technology is used extensively in the learning process, the faculty member begins to expect more of students, presents more complex materials, and assumes a greater role as learning coach.

Faculty and students develop technology skills, pedagogical attitudes, and behaviors at different rates, and not all choose to change their attitudes and behaviors beyond using the technology to strengthen and enrich traditional curriculum and instructional methods. Studies have shown that integration of technology into the curriculum and available in learning spaces often naturally leads to greater student collaboration, fusion of subject areas, and autonomous learning, as well as inquiry, critical thinking, and problem-solving skills. Therefore greater emphasis in assessment should be placed on problem-solving, critical thinking, inquiry, communication, collaboration, and the integration of traditional content and professional areas. This report, conducted by the CEHS Technology Committee will be submitted to the Technology Committee and to the Associate Dean of the CEHS.

C. Assessment data is monitored and disseminated to constituents²⁷.

Higher education, particularly teacher education, has been under recent close public scrutiny and professional standards have helped define expectations. It is critical that the College collects data, shares findings, recognizes achievements, and celebrates progress.

Various technology tools can be used to monitor and disseminate this information:

- Online tests and surveys can help gather data,
- Spreadsheets and data bases can help organize and synthesize data,
- Statistical tools can determine meaningful patterns,
- Collaboration tools like WebBoard can encourage feedback, and
- Email, web sites and video conferencing can help send the message to various audiences.

D. Assessment data is collected, evaluated, and reported using various technologies.²⁸

The College has a variety of data to collect, evaluate, and report. The Higher Education Report Card, PRAXIS information, annual AACTE/NCATE data, and data required by the

²⁷ “The unit continuously examines the validity and utility of the data produced through assessments and makes modifications to keep abreast of changes in assessment technology and in professional standards”, NCATE Standard 2, Assessment System and Unit Evaluation; Assessment System

²⁸ “The unit is developing and testing different information technologies to improve its assessment system”, NCATE Standard 2 Assessment System and Unit Evaluation; Data Collection, Analysis, and Evaluation

Ohio Board of Regents (HEI reports) are only a few of the reports required of the College. Technology is vital to timely and efficient completion of these reports.

IX. Community Support

The community and school partners provide expertise, support, and resources.*

A. The technical infrastructure must not only accommodate uses on campus but also allow distance learning connections with P-12 schools, programs in other colleges and universities, and human service departments, agencies, and organizations.

Technology supports communication allowing University, College and P-12 personnel to discuss education issues via email, listservs, or online chats. Telecommunications also supports dialogue between collegiate and P-12 students.

B. The College will continue to pursue linkages to P-12 schools, human service agencies, and to other sectors of the university or community where students receive portions of their training*.

The College will identify sites with technological resources available to enable incoming teachers to observe and use technology-infused education. As current collegiate coursework incorporates instructional design into content, credential candidates can use these new skills in practical settings. Veteran teachers can in turn try new technologies for immediate academic impact.

The College's Partner Schools have designated a technology contact individual or team of individuals*. The College will bring these Technology Partners together during the academic year to review the College's preparation of educators, Partner School sites' technology issues and concerns, and to nurture the partnership linkage. Human service and educational faculties (clinical and adjunct) from P-12 and human service settings will provide insights and professional practice examples for both collegiate faculty and students.

C. The College will involve CEHS students in school-based activities.²⁹

The College will pursue opportunities to involve candidates in school-related service learning activities. P-12 programs benefit from 1) exposure to the newest educational technology and theories to optimize student learning and 2) increased focus on program goals. As College faculty and students reflect on their experiences, they hopefully will be able to generalize their insights to a higher level of understanding.

D. The College will serve as an information technology resource beyond the campus setting*.³⁰

²⁹ "Candidates...are involved in a variety of school-based activities directed at the improvement of teaching and learning, including the use of information technology", NCATE Standard 3 Field Experiences and Clinical Practice; Design, Implementation and Evaluation of Field Experiences and Clinical Practices

³⁰ "The unit serves as an information technology resource in education beyond the education programs – to the institution, community, and other institutions", NCATE Standard 6 Unit Governance and Resources; Unit Resources including Technology

Teacher education candidates will 1) enrich field and placement sites through the use of their knowledge and skill of technology and 2) strengthen the technology infrastructure of the schools and institutions hiring our students.

It is imperative that the lay and professional communities support CEHS programs. In a direct way, community support will be sought especially during internships and practice teaching experiences. More than this, however, communities must recognize that students and faculty enrich the communities in the State of Ohio and the greater Miami Valley region.

X. Support Policies

School and university policies, financing, and reward structures are in place to support technology in learning.

A. Hardware and software used for teaching, research, service and college support staff will be updated on a regular basis.

Updating will be more frequent in program areas where state-of-the-art technology is critical to effectiveness. A three-year cycle will be implemented with one-third of the basic equipment replaced and/or upgraded.

As new technology is developed and existing technologies are being improved at a rapid pace, even dominant technologies can become obsolete in as little as six months. The College has a line item in the annual budget that will satisfy new technological needs as well as the maintenance, repair and replacement of existing technology. In addition, outside resources are solicited to meet emerging technological needs.

Priority one is that classrooms are “smart” classrooms enabling both students and faculty to make use of current and emerging technology. Students and faculty should be able to plug into campus networks, project their work, and have access to developmental or creation stations. Portable and wireless equipment is the next level of priority after desktop capabilities are sufficient. Support staff should have compatible equipment, software and be trained in the use of an intranet system that would allow for file sharing, common access to important data and information, and continued access to training on new products.

B. Official and unofficial homepages are determined by the University.

College and department web pages will be considered official University pages. Students who want to post unofficial personal homepages will use the servers provided by the University and will complete a request for site form. Faculty and staff may post personal homepages on the College’s server, and these will be considered unofficial homepages.

All official homepages must have a link to University copyright information and all unofficial homepages must contain a common University disclaimer. The University webmaster will provide details concerning specific information that should or should not be included on homepages. Users of university information technology resources must comply with Wright Way policies.

C. The College will provide security to prevent the loss of, and ensure uninterrupted access to all technologies.

Technologies should include reliable, effective protection against the following:

1. physical theft of equipment,
2. damage to equipment by electrical surges,
3. infection by computer viruses, and
4. intentional or unintentional erasure or corruption of data.

Given the high costs associated with the purchase and maintenance of many technologies as well as the necessity of maintaining continuous operational usage, ensuring the security of technology is critically important.

D. All Departments and units of the College will share in the funding and distribution of technology resources.

Decisions about allocation of resources will be made in an objective, fair, inclusive, and equitable manner. Requests will be negotiated and decisions will be made in dialogue with program and department heads, the College Technology Committee, the Associate Dean, the Dean of the College, and other designated decision-makers. This process will provide optimal use of technological resources within the College. We live in a world of limited resources, therefore, decisions continually must be made about how to allocate finite resources. Written College policies regarding the distribution of resources will help to ensure the fair and equitable distribution of resources. Whenever feasible, faculty and staff must also seek external support for training and equipment as well as grants, donations, foundation dollars as there will never be enough internal funding to do it all.

E. The College will actively pursue resources and funding to support technology usage.³¹

Regarding replacements of faculty and staff computer equipment, the following sequence will be followed as closely as possible:

- Faculty replacements done in the Winter and Spring quarters utilizing the Faculty Initiative plan from the Provost's Office.
- Staff replacements done in the summer and fall, after the start of the new fiscal year.
- Biannual House Bill funding of instructional equipment (computer and non-computer items) will support requests prioritized in the Deans' Office based on department and program priorities. This funding is to support instructional use only and therefore must include access to equipment by students.

This plan builds on the strengths of the CEHS, its faculty and students. The plan is evolutionary and revolutionary not because of a challenge to our society but because technology forces us to deal with circumstances such as ethics and the discovery of new possibilities that indeed are revolutionary to both education and society. Educational technology is evolutionary. We seek to identify the *next steps* so that we can identify the possibilities and inform others. Regardless of one's disposition towards technology it is also revolutionary and it will change things – sometimes dramatically.

³¹ “The unit aggressively and successfully secures resources to support high-quality and exemplary programs and projects to ensure that candidates meet standards”, NCATE Standard 6 Unit Governance and Resources; Unit Resources including Technology.

The College will support faculty and staff efforts to obtain external funding for technology.

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END NOTES

¹ International Society for Technology in Education (ISTE) Essential Conditions for Teacher Preparation. http://cnets.iste.org/teachers/t_esscond.html

NOTE too that this applies to administrators. http://cnets.iste.org/administrators/a_esscond.html

² The term *faculty* extends to full-time faculty, administrative faculty, and adjunct faculty.

³ U.S. Department of Education Office of Educational Technology. (2000). E-learning. Washington, DC. U.S. Department of Education. <http://www.ed.gov/Technology/elearning/index.html>

⁴ Retrospective on Twenty Years of Educational Technology
http://www.nationaledtechplan.org/docs_and_pdf/20yearsdotherevised.pdf

⁵ Note: indicators to conceptual and strategic plans for the University and the College of Education and Human Services are indicated throughout this document by an *.

⁶ Computing and Telecommunications Services (CATS) provides service and support for university telephones, campus networking, Internet access, and administrative and academic computing resources.
<http://www.cats.wright.edu>

⁷ The university's mission is to provide all users with a functional, accessible, interactive *web* experience. (see, <http://www.wright.edu/web/access>)

⁸ Disability Services (see, http://www.wright.edu/students/dis_services/).

⁹ Accessibility Information: The Web at WSU. <http://www.wright.edu/web/access/resources.html>

¹⁰ Faculty and candidates have access to exemplary library, curricular, and electronic information resources that not only serve the unit, but also a broader constituency”, NCATE Standard 6 Unit Governance and Resources; Unit Resources including Technology.

¹¹ Wright State University Library <http://www.libraries.wright.edu/>

¹² “The unit has outstanding facilities on campus and with partner schools to support candidates in meeting standards. Facilities support the most recent developments in technology that allow faculty to model the use of technology and candidates to practice its use for instructional purposes”, NCATE Standard 6 Unit Governance and Resources; Unit Facilities.

¹³ *Beyond Desktop Computing - MIT's Oxygen Project* <http://dsonline.computer.org/archives/ds100/ds1newprint.htm>

¹⁴ Ubiquitous computing-related sites and projects. <http://www.cs.bell-labs.com/who/cyoung/ubiq.html>

¹⁵ Wright State University's Center for Teaching and Learning. <http://www.wright.edu/ctl>

¹⁶ *Fifth Generation Distance Education*, <http://www.icde.org/oslo/icde.nsf/0/FD5130FDCE096DA341256C3F00397748?>

¹⁷ “Teaching by the professional education faculty reflects the unit’s conceptual framework(s), incorporates appropriate performance assessments, and integrates diversity and technology throughout coursework, field experiences, and clinical practices”. NCATE Standard 5 Faculty Qualifications, Performance, and Development; Modeling Best Professional Practices in Teaching

¹⁸ “Faculty understand assessment technology, use multiple forms of assessments in determining their effectiveness, and use the data to improve their practice”, NCATE Standard 5 Faculty Qualifications, Performance, and Development; Modeling Best Professional Practices in Teaching

¹⁹ Improving Human Services through Technology, Human Services advisory Group.
<http://www.gao.gov/special.pubs/GAO-02-121/ap9.pdf> and <http://www.ita.org/es/cne/hsitag.htm>

²⁰ Cats at <http://www.wright.edu/cats/train/> University Library at www.libraries.wright.edu/libnet/dl and CTL at <http://www.wright.edu/ctl/workshops/index.html>

²¹ American Association of University Professors. www.wright.edu/admin/aaup/aaup.html

²² “Formal policies and procedures have been established to include on-line course delivery in determining faculty load”, NCATE Standard 6 Unit Governance and Resources; Personnel

²³ Side Letter on Compensation for Distance Learning, <http://www.wright.edu/admin/aaup/Contract.html#C>

²⁴ “Teacher candidates...present the content to students in challenging, clear, and compelling ways and integrate technology appropriately”, NCATE Standard I Candidate Knowledge, Skills, and Dispositions; Pedagogical Content Knowledge for Teacher Candidates

²⁵ “Candidates...collect and analyze data related to their work, reflect on their practice, and use research and technology to support and improve student learning”, NCATE Standard 1 Candidate Knowledge, Skills, and Dispositions; Professional Knowledge and Skills for Other School Personnel

²⁶ Ohio Department of Education, BEST, and the National Commission on Teaching & America’s Future (2000). Ohio’s Vision for 2006: A Caring, Competent, Qualified, Teacher in Every Classroom.

²⁷ “The unit continuously examines the validity and utility of the data produced through assessments and makes modifications to keep abreast of changes in assessment technology and in professional standards”, NCATE Standard 2, Assessment System and Unit Evaluation; Assessment System

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