The University of Central Florida has developed an award-winning faculty development program that provides experiential, collaborative learning to build successful online programs. A comprehensive approach that supports teaching and learning online for both on- and off-campus applications has transformed the institution’s culture.

In 1996, UCF in Orlando began an intensive faculty development program to teach faculty members how to create interactive online learning environments. As the program matured, the delivery format modeled teaching with technology in the form of a simulation course called IDL643: Interactive Distributed Learning for Technology-Mediated Course Delivery (IDL). Since 1996, 200 faculty from UCF’s five colleges have participated in the program, which combines consultation with instructional designers, face-to-face meetings, labs, and online activities.

The IDL course evolved from an institutional goal to develop online learning to meet the needs of the rapidly growing campus and the many nontraditional students. Faculty members who participate in IDL receive financial incentives, support for course development, and assessment so their first online teaching attempts are successful. Through the course, participants become members of an interdisciplinary learning community that leads to peer teaching. More than 400 online courses have been developed through the IDL program. UCF’s comprehensive approach to developing and supporting online learning required that four key areas be ready: the institution, faculty, courses, and learners.

**Institutional Readiness**

As institutions embrace technology-mediated learning, they must also reconcile increasing learning outcomes with designing for scale and controlling costs. Three units were created within the last four years to support UCF’s online initiatives specifically:

- **Course Development and Web Services (CDL)** provides campuswide coordination, planning, marketing, and administrative support for program development.
- **The Research Initiative for Teaching Effectiveness (RITE)** assesses online courses to support faculty and course development (see reach.ucf.edu/coursetech, distrib.ucf.edu, and reach.ucf.edu/research).
- **The Center for Distributed Learning (CDL)** provides campuswide coordination, planning, marketing, and administrative support for program development.

These three units have collaborated to increase support for institutionalizing online learning. The “Institutional Readiness” sidebar shows the conditions that made it possible to initiate and increase the scope of online teaching and learning at UCF.

From an assessment perspective, UCF has collected data since 1996 on the impact of classes that are supported through the IDL faculty development program. Participating faculty members can receive expert research design assistance in addition to support for collecting, analyzing, and publishing evaluation results. Support for evaluation has resulted in a coordinated approach to collecting data about student and faculty demographics, student learning styles, growth in enrollment and sections, student and faculty perceptions of teaching and learning online, and problems encountered while teaching and learning in the online environment. Evaluation data have been used to target improvements in faculty development and learner support.

UCF has been studying student learning styles in online courses with the intention of helping faculty address the individual differences students encounter in their classes. Armed with this information, UCF can be more responsive to student needs and can improve metacognitive skills for all its students.
Institutional Readiness

These are the favorable conditions that made it possible to initiate and implement online teaching and learning support at UCF. You can use the following as a checklist to assess your institution’s readiness. If your campus has the following, you’re ready. If not, use this as an action-item list.

**Faculty Readiness**

- Patient with technology
- Able to learn from others
- Faculty members who plan to teach online must prepare for their new role as well as the new role required of their students. Participants develop and deliver their courses. Participants receive a participant incentive payment (equivalent to pay as if teaching a three-hour course), developer’s tools, and course design and production support.

- Well-equipped campus labs
- Coordinated technical sales and support

**Distance or distributed learning leadership**

- Articulated vision and doctrine of shared vision from top administration
- Core organizational structure
- Planned growth
- Campuswide coordination
- Internal and external partnerships
- Buy-in by academic leadership

**Commitment to faculty support**

- Incentives and rewards
- Systematic faculty development
- Research design and analysis support
- Tenure and promotion reconsideration
- Policy development

**Commitment to course and program support**

- Design for scale
- Quality standards development
- Multimedia production support
- Research and development
- Copyright support

**Commitment to learner support**

- 24/7 helpdesk support
- Communication and marketing
- Metacognition and learning
- Orientation
- Adequate software
- Web-based campus services

**Commitment to assessment**

- Ensuring quality of programs
- Research mission support
- Alternative assessment creation

**Faculty Readiness**

Internet use has become so pervasive in society and on campus that faculty members are facing pressure from their students to provide some form of Web presence to their courses. Internet use has become so pervasive in society and on campus that faculty members are facing pressure from their students to provide some form of Web presence to their courses. Internet use has become so pervasive in society and on campus that faculty members are facing pressure from their students to provide some form of Web presence to their courses.

- Redundant, reliable network services
- Robust campus infrastructure
- Demonstration level of faculty interest

**Course Readiness**

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- Research mission support
- 24/7 helpdesk support
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**Using mixed mode delivery tools and media enables UCF to deliver more courses appropriately online.**

**Course Readiness**

Online courses are not limited to one delivery method. For example, CDaW produces CD-ROMs, print materials, and videos to augment online courses. Online resources through a computer-mediated communication model are the primary means of course delivery. Using mixed mode delivery tools and media enables UCF to deliver more courses appropriately online. Our investment in course development and production support has enabled greater course readiness for many programs.

**Participants in the IDL6543 faculty development course learn standard processes and receive standard elements to incorporate in online course development. Adhering to standards does not stifle the creativity of faculty members or support staff, rather these standards create course readiness.**

**DEVELOPMENT**

CDaW has developed a comprehensive, eight-session curriculum called WebCT Academy for training faculty and graduate teaching assistants to use WebCT. Participants learn the mechanics of managing an online course and are presented with an array of best practice strategies. The first two sessions of WebCT Academy are required as prerequisites to IDL6543. The third and fourth sessions are taken as lab sessions during IDL, and the last two sessions may be taken after...
A Three-Pronged Approach

A successful faculty development pro-
gram must address technology, peda-
gogy, and logistics. In each area, make
sure faculty members have the back-
ground and tools they need.

Technology
• WebCT course management skills
• Access to electronic library resources (for course materials and student assignments)
• Advanced e-mail techniques for automating certain course management functions
• Ability to handle technology problems (simulated scenarios)

Pedagogy
• Overview of distributed and asynchronous learning
• Instructional best practices for using technologies
• Systematic instructional design process (instructional strategies)
• Distributed learning course development process
• Interaction in online courses
• Assessment of online courses
• Course administration
• Group work in online courses
• Copyright and fair use information
• Learner support

Logistics
• Understanding of course production process
• Access to online library resources for content development
• Ability to submit materials in electronic format to instructional designer
• Willingness to review suggestions by instructional designer, edit and resubmit material as necessary prior to Web page coding
• Evaluation of materials by faculty evaluator and instructional designer

A casual observer just notices the duck floating serenely on a pond, unlike the duck swimming around in circles. Emphasizing only one of these dimensions (just the technology or just the pedagogy) will result in a one-legged duck swimming around in circles. Emphasizing only the logistics of producing Web pages without supporting technological and pedagogical skills results in a dead duck.

Because IDL6543 emphasizes all three areas, the program moves a developing course toward readiness. The program provides the technology skills needed for teaching online, encourages discussion of pedagogical issues, models, and strategies, and facilitates teamwork between faculty participants, instructional designers, and the production team to produce the actual online course materials. (The sidebar, “A Three-Pronged Approach,” summarizes the topics addressed in each of the three areas.)

PRODUCTION

At the end of the IDL6543 course each participant takes with him or her all of the publicly accessible Web pages he created and posted online, the WebCT communication tools configured for the specific strategies he is using, and one content module in place. The content modules are based on a specific course objective, require student interaction, and are paired with an assessment. Course content typically takes the form of Web sites created by Techranger programmers and digital media designers. Design element graphics (such as frames, buttons, bars, and bullets) follow one particular look for each course. These graphics are part of a number of templates from which the faculty member chooses at the beginning of IDL6543. A course-specific graphic header is created for each online course that visually communicates the key concept(s) of the course (for example, the header graphic for a social problems course incorporates images of police officers restraining a violent person, and pupil signs displaying various slogans related to social issues).

Techrangers and software engineers can create dynamic media elements and interactive content as necessary for particularly crucial concepts in the course (for example, a women’s health issues course incorporates a personal health assessment form in which students enter their lifestyle habits and receive a personal health rating). The faculty member and instructional designer communicate throughout the course development process. The instructional designer plays the personal trainer role to the faculty member, but also serves as primary liaison between the faculty member and the production team. A course-management plan is developed to ensure completion of all course materials prior to the start of the first semester the course is offered. Each subsequent semester the course is offered, the faculty member and instructional designer revise the course materials based on the experiences of the preceding semester and on emerging strategies, technologies, and assessment results.

You must support technological and pedagogical skills in addition to the logistics of producing Web pages.

COMPONENTS

UCF’s online course model has two major components: publicly accessible Web pages and password-protected pages within the WebCT course-management tool. The publicly accessible Web pages combine to form a comprehensive online syllabus. These pages convey the course’s direction and the faculty member’s personality. The public pages help students who are shopping for a course, particularly those who will never meet the faculty member in person. Although these pages are professional in appearance, an effort is made to maintain a welcoming, informal tone. All of the publicly accessible pages for UCF’s centrally supported online courses are housed on one Web server called the Reach Server (see reach.ucf.edu). The standard Web page convention allows easy student access to all supported online courses.

Although the exact number and titles of standard public pages and buttons varies according to a faculty member’s preference, the typical pages include a course home page, schedule, protocols, and syllabus (see “Typical Course Pages,” sidebar). The password-protected portion of the course within WebCT is where students and faculty members interact and where any sensitive online content is accessed. Content may include faculty-prepared notes (which may replace or supplement textbooks) and specifically designed course activities. Instructional designers work with faculty members to create activities based on course objectives and that result in realistic assessments.

Designers and faculty members attempt to include instructional strategies and tools that make online content as interactive as possible. Students who are reading online text in WebCT can use a feature that allows them to...
Statewide Training Grant

UCF’s Course Development & Web Services unit received a grant to extend its curriculum development and training to other institutions in the state. Florida has an articulation agreement with its 28 community colleges enabling all students receiving AA degrees to be admitted in any of the 10 state universities. Florida also has a statewide license for WebCT, which enables all 38 public higher education institutions to purchase the program at a reduced rate. With the statewide training grant the CDB&W unit has developed training materials for WebCT, including a CD-ROM with tutorials, print manuals, a practice online course, and a videotape demonstrating applications. Teams of instructional designers from UCF have conducted training at selected Florida institutions that result in formal collaborations to promote readiness and improve the quality of online learning (for more information see reach.ucf.edu/~coursdev/webct).

Evaluate whether the advanced media elements add value and are worth the expense.

As a means of promoting community in online courses, a password-protected database called the Student List supplements WebCT. Students may enter biographical information and choose to display either their student identification card photo or a cartoon caricature to help other students and the faculty member get to know them. Students’ preferred e-mail addresses can also be entered so classmates and the faculty member can communicate. Each semester student information is automatically uploaded to both WebCT and Student List databases so students can go to their online courses as soon as possible. This automated database population does not require faculty members to enter information manually for each student in every course.

Learner Readiness

Many students enter online courses with insufficient computer skills, low metacognitive skills, and ignorance about the kind of course they are entering. In our experience students are most successful in online classes when they have the following characteristics:

- Informed self-selection
- Responsibility for their own learning
- An access plan for taking the course
- Awareness of how they learn (metacognition)
- Technical skills
- Ability to build a support system
- Favorable response to technological uncertainties

Since the beginning of online courses at UCF faculty members found themselves spending the first few weeks of class dealing with technical issues rather than course content. Most of the technical issues were the result of students’ weak technical skills and lack of adequate software. For example, many students did not know how to:

- access the Internet
- search the Internet
- use e-mail and create attachments
- use word processing programs
- access their course
- use WebCT
- troubleshoot computer problems
- troubleshoot Internet connection problems
- download and install software programs and or plug-ins

To create learner readiness UCF has developed the Pegasus Disc to address these issues. The Disc contains numerous tutorials to provide students with technical skills ranging from an introduction to computers to how to log into their course and use WebCT. Students may use the Disc to learn new skills, improve existing skills, or check their knowledge. The tutorials include QuickTime movies, self-check quizzes, and practice exercises. In addition, many faculty members assign the tutorial’s practice exercises as an assignment to test the skill levels of their students. The Disc also features software tools, plug-ins, and just-in-time information. The software tools include programs and plug-ins frequently used on campus and in the library. The just-in-time information provides contact information for campus facilities, useful information, and forms including financial aid forms. This allows distant students access to information and promotes the campus community feeling.

The Pegasus Disc is distributed to all new students and faculty at UCF (for more information see reach.ucf.edu/~coursdev/cdrom).

LEARNING-ONLINE WEB SITE

Prior to the Pegasus Disc we created a Learning-Online Web site as a resource for online courses (see reach.ucf.edu/~coursdev/learning). This Web site provides guidelines for taking online courses, including computer specifications, password information, skill requirements, tips on metacognition, and information. Since the Web site was created prior to the Pegasus Disc, some information is duplicated between the two resources. As a result UCF is redesigning the Learning-Online site. The next version of the site will include three sections:

- Metacognition for improved self-selection: Consistently our research shows that successful students in online courses are self-motivated, well organized, and have highly developed metacognitive skills. Students who do not have strong metacognitive skills cannot identify when they need help and can become lost without face-to-face interaction with a faculty member. Section 1 will include a place for

As students’ technological expectations change, they place new requirements on institutions and faculty.

UCF has institutionalized online learning into the university’s core mission. The convergence of institution, faculty, course, and learner readiness has empowered UCF’s faculty and students to succeed in teaching and learning online. As more research is conducted, lessons learned will be shared across campus and with other partnering institutions. One outcome from this transformation is clear: There is no going back! 

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