

A Technology Model for Master's Programs in the Professions

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As a comprehensive university, Eastern Illinois University's mission is dedicated to providing superior, accessible graduate education across many disciplines; however, the university continues to emphasize its commitment to the professions. The graduate mission further amplifies that all graduate programs must provide opportunities for the discovery and application of knowledge as one component of a superior graduate degree.

One of Eastern's premier graduate programs is its Master of Science in Communication Disorders and Sciences. This highly selective master's program offers opportunities to earn the credentials required for practice across all work settings including schools, hospitals, rehabilitation centers, and private practice clinics. As a result, the program is in high demand and cannot accommodate many well-qualified applicants. According to department statistics, critical shortages exist world-wide for certified and licensed speech-language pathologists and meeting this critical shortage is part of the department's mission. Examination of the issues that contribute to the shortage revealed that many well-qualified candidates become place-bound following their undergraduate degrees and cannot return to campus for a traditional program of study.

To address this issue, the department created a hybrid program with a significant online component. The new program offers the flexibility required to attract candidates who cannot pursue the traditional program. The new program has gained campus as well as national attention. The online component provides access to courses. In addition, the program has developed assessments to ensure that the students who complete the online curriculum meet the same standards of rigor and pass state-wide and national examinations at the same rates as those who complete the traditional program. Similarly, the online program provides access to tools required to complete the needed research components of the program and, through assessment of performance, the online candidates must meet the same academic standards as those in the traditional program.

The University provides the following technological tools to support this new hybrid program and the initial cohort of 15 candidates will complete their degrees in 2014. This model is now being offered as a best-practice approach for other professionally-focused master's programs at Eastern and was featured in a campus-wide summit on models of excellence in online programming at the University. It will also be shared with colleagues nation-wide through presentation at the American Speech-Language-Hearing Association.

- Digital Recording of Traditional F2F Classes and Clinic. To support the online classroom and clinical experience needs, the program adopted digital technology for recording of clinical treatment sessions and classroom interaction sessions. The Paragon Development Systems (PDS) with Intelligent Stream Recorder (ISR) allows for Internet Protocol (IP) video event recording. Digital cameras (PTZ IP) and ceiling microphones provide the high quality video and audio needed to support the clinical teaching elements. The instructor can control the camera during the event as needed to enhance online instruction.

- Streaming of Digital Recordings. Digital videos are saved as .wmv files to a streaming server and web links (mms:\) for streaming files are inserted as links into the course management system (WebCT/D2L) for students to view. Other options on campus now for sharing video with students now include YouTube and Caltura.
- Course Management System (CMS). WebCT followed by Desire2Learn (D2L) have been used in the program. The program requires that all graduate candidates have a program-designated laptop computer prior to initiating both the face-to-face or distance instruction. All resources supporting both programs are available through digital resources including streaming video clips, digital case files, PowerPoint notes, web links, and other practice activities. Assessments are routinely offered for all programs using the CMS software. Discussion boards are used with some of the distance courses.
- File Sharing. Xyθος (PantherFile) is a secure, web-based file-storage system available to staff and faculty at the University. PantherFile allows users to access files for uploading, storing, retrieving, and sharing. Files can be easily and securely accessed over the Internet from any location.
- Synchronous Class Meetings and Online Office Hours. Blackboard Collaborate (formerly Elluminate) is a web-based video conferencing system that allows participants to engage in two-way audio, multi-point video, interactive whiteboard, application and desktop sharing, rich media, breakout rooms, and session recording. Meeting rooms can be created by the instructor within a Desire2Learn course by selecting “Communications” followed by “Online Rooms.” After a student uploads the PowerPoint and lecture, the following options are available:
 - Students can ask/answer questions with microphone, raise their hands, type messages and answers, and show information using their web camera or desktop sharing application. The whole class can respond to “yes/no” or multiple choice questions with polling tools.
 - Instructors may use the “White Board” functions with students so that all members of the online environment may write or type information to the board.
 - Students and faculty may engage in application sharing so that the entire desktop or particular programs may be shared.
 - Faculty may create breakout rooms for small group discussion with online participants. If students are moderators, they can share their desktops with each other in a large room or breakout rooms.

The MS in Communication Disorders and Sciences hybrid model allows candidates in the distance sections to see and hear lecture and discussion, and if they participate during the live sessions they can also ask questions and participate in the discussion. Elements such as case videos, class notes, diagrams, and assessment forms were made available in web-based teaching platforms including D2L and Blackboard Collaborate. These and other elements have created a model for other masters-focused professional programs to adapt in order to provide access to place-bound candidates.