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Proposal for a Graduate Certificate in  
**ONLINE TEACHING AND LEARNING**

Submitted by  
Instructional Technology Program Area  
Department of Curriculum and Instruction  
College of Education  
University of Houston

April 24, 2008

For additional information, please contact Dr. Sara McNeil, IT Program Coordinator, at  
[smcneil@uh.edu](mailto:smcneil@uh.edu)

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## **Abstract**

The Instructional Technology (IT) Program Area in the Department of Curriculum and Instruction in the College of Education at the University of Houston proposes a 12-hour **Certificate in Online Teaching and Learning**. This Certificate would be both Direct Entry (for students with no intention of earning a graduate degree but who seek some graduate level work to enhance their knowledge and skill in a particular area), and Specialization (for graduate students at the University of Houston who would like a formal recognition of a specialized area of study in addition to their degree).

There are three primary audiences for this Certificate: 1) current students who are enrolled in a graduate program at the University of Houston, 2) potential students with baccalaureate degrees who are seeking graduate level training and professional enhancement but who do not yet wish to enroll in a full degree program, and 3) students who already have a graduate degree and who are seeking additional graduate level training and professional enhancement.

Instruction will be provided by current faculty in the IT Program. The curriculum has been developed by the IT Faculty and is composed of four graduate courses. It includes a course in the Design of Online Educational Resources I, a course in the Design of Online Educational Resources II, a course in Computer Mediated Communication, and a course in Topics in Distance Education. Each student will be advised by a member of the IT Faculty.

The Certificate will be a critical component of the University of Houston's mission to forge linkages between the academic community and the urban environment of the Houston area including K-12 schools, community colleges, and training organizations. A review of programs at the University of Houston as well as other local universities indicates that this Certificate will provide a unique opportunity for both educators and trainers in the Houston area as well as across Texas.

This Certificate presents no additional costs to the Curriculum and Instruction Department, the College of Education or the University of Houston. All of the courses are currently offered as part of the IT Program, and no additional faculty are required. Current library and technology resources are sufficient to support this Certificate.

Current students will be able to enroll in courses through the standard university registration process. Applicants who are not currently enrolled at the University of Houston will be required to apply as "temporary graduate students" and meet the requirements.

The time required for completion of the Certificate is based on the number of courses offered and how many courses that a student is able to complete each semester; the average duration of study is one year. Full enrollment is anticipated to stabilize at 30-35 students.

## **Need for the Certificate**

Over the last decade, the high need in schools for teachers trained in instructional technology was matched by multiple funding opportunities, both local and federal, making it possible for schools to sponsor key teachers for full Masters preparation in Instructional Technology. These technology leaders returned to their respective schools to instruct and share their knowledge with their faculty and staff, thus furthering the learning. In recent years, however, local and federal funding for technology-related initiatives has essentially vanished.

For this reason, as well as a variety of others, we have found that teachers in the public schools, and at times professionals in other technology and training-related vocations, frequently have an interest and a need in developing expertise in a particular focus area, yet are not—or not yet—interested in pursuing a masters degree. Often these students—representative of a growing group of individuals across the Houston area—enroll in our courses as post-baccalaureate students without emphasis on particular areas and formal guidance.

In direct response to this need, the instructional technology faculty proposes this carefully designed sequence of courses centering on meaningful focus areas reflecting the immediate issues in education. The Certificate in **Online Teaching and Learning** is built around courses that are already being taught. While not providing the full experience of a Masters degree, this Certificate will provide students with relevant and timely knowledge and skills, along with recognition for a guided program of study. Thus, this Certificate represents a natural way for the Instructional Technology program to capitalize on its existing resources—e.g., accomplished faculty and state-of-the-art computer lab facility—to better serve the Houston community.

## **Other Similar Certificates**

Certificates fill a critical educational need. They provide a focused and rigorous sequence of graduate study without the full demands of the masters or doctoral level program. This Certificate makes it possible to acquire the skills of online teaching and learning that are critical for professionals in instructional technology. The proposed Certificate is consistent with efforts, nationwide, to develop specialized study in instructional technology skills and knowledge, as almost all major research universities that offer degrees in instructional technology also offer certificates in related areas. The trend is widespread in the state of Texas as well.

For example, University of Houston Clear Lake offers certificates in online distance education, technology applications, and Master Technology Teacher. In fact, over 20 Texas institutions have an approved Master Technology Teacher program, including University of North Texas and University of Texas at Brownsville. The College of Education at the University of South Florida offers certificates in web design, instructional design, multimedia design, distance education, and a “digital educator certificate.”

## **Overview**

### **Academic Unit Administrating the Certificate**

The Certification in Online Teaching and Learning will be administered by faculty members from the Instructional Technology Program Area within the College of Education's Department of Curriculum and Instruction. The Department houses the largest center for teacher education in the Houston metropolitan area which has historically provided innovative teacher education programs for urban, at-risk populations. The Department's teacher education program stands out among other teacher preparation institutions in Texas for its strong emphasis on field-based training through internships and professional development programs. The program is also noted for its focus on the use of innovative technology in preparing teachers to deal with special problems facing urban public education, including bilingual and special education. In 2007, the Department's teacher education program was awarded the Distinguished Program in Teacher Education by the Association of Teacher Educators.

The Instructional Technology faculty have a long history as nationally recognized leaders in technology and teacher education. In 1999, *Technology and Learning* identified the UH College of Education as one of three leading institutions implementing technology in teacher education. Additionally, the College was featured in the U.S. Department of Education's report *Preparing Teachers for the 21st Century*. The report highlighted the College's success in preparing teachers to use new media and communication technologies in instruction.

The Instructional Technology faculty have created successful educational partnerships with Houston area school districts, including the Houston Independent School District and the Spring Independent School District; other educational institutions, including Region IV Educational Service Center; Texas Southern University; Baylor College of Medicine and the University of Texas Medical School-Houston; non-profit organizations including the Museum of Fine Arts, Houston; the Houston Children's Museum; the Houston Museum of Natural Science; KUHT – Houston Public Television and KUHT – Houston Public Radio; as well as other University of Houston units including the Department of History and the Blaffer Gallery, the art museum of the University of Houston.

The proposed Certification in Online Teaching and Learning is aligned with the IT Program Area competencies, which in turn are aligned with the International Society for Technology in Education (ISTE) Curriculum Guidelines for Basic Endorsement in Educational Computing and Technology Literacy. The Instructional Technology program has been reviewed and accredited by the International Society of Technology in Education (ISTE). ISTE is an affiliated professional association of the National Council for Accreditation of Teacher Education (NCATE).

### **The Proposed Timeframe for Initiation of the Certification**

Because this Certificate capitalizes on courses already developed and being currently offered, the Certificate can be initiated immediately upon approval of this proposal.

### **The Intended Student Body**

The progression of courses in the **Online Teaching and Learning Certificate** offers a unique opportunity to post-baccalaureate and graduate students. The Certificate is designed to be flexible enough to attract applicants from a variety of disciplines, who desire to expand their knowledge of online teaching and learning, as well as stay up-to-date with emerging technology. For example, educational technology courses are often appealing to corporate trainers and managers in human resources departments. An increased facility with appropriate technology can improve both training as well as develop opportunities for further professional advancement.

The Certificate in Online Teaching and Learning seeks to attract students in the College of Education and across campus as well as post-baccalaureate and post-masters' students who want to improve their skills and theoretical foundation in online teaching and learning. The courses in this Certificate provide students with the knowledge and skills necessary to create effective, educationally-sound, online learning environments for use in K-16 classrooms as well as training environments for adult learners.

Current students will be able to enroll in courses through the standard university registration process. Applicants who are not currently enrolled at the University of Houston will be required to apply as "temporary graduate students" and meet the requirements.

The time required for completion of the Certificate is based on the number of courses offered and how many courses that a student is able to complete each semester; the average duration of study is one year. Full enrollment is anticipated to stabilize at 30-35 students.

### **Administration of the Certificate**

This Certificate will be administered by the Instructional Technology Program. Each student will be advised by a member of the IT faculty.

### **Faculty in the Instructional Technology Program Area**

Mimi Lee (Ph.D. Indiana University) Assistant Professor  
Research interests: Theories in instructional design, critical ethnography, computer-mediated communication, social/cultural aspects of education, visual representation/analysis

Grace Lin (Ed.D. University of Houston) Visiting Assistant Professor

Research interests: Web 2.0, technology integration, web authoring, educational uses of Web 2.0, online education

Sara McNeil (Ed.D. University of Tennessee) Associate Professor

Research interests: visual representation, formation and change in mental models, information representation and design, integration of technology in history education

Melissa Pierson (Ph.D. Arizona State University) Associate Professor

Research interests: technology integration in preservice and inservice teaching; the development of teacher technology knowledge as related to content and pedagogy knowledge; the use of teaching videos as data for teacher inquiry

Bernard Robin (Ph.D. University of Virginia) Associate Professor

Research interests: digital storytelling, use of digital video in education, multimedia development, web-design

Donna Smith (Ed.D. University of Houston) Visiting Assistant Professor

Research interests: technology integration in k-12 setting, teacher education, emergent technology

Mary Thompson (Ed.D. University of Houston) Visiting Assistant Professor

Research interests: teacher education, technology integration, multimedia in the classroom

### **Other Committed Resources**

The Certification will build upon a strong institutional commitment from the University of Houston that includes support for technological innovation across the campus. The University, College and Department administrations have allocated space within the College of Education, committed computer equipment and software to help faculty integrate new technologies in their courses, provided infrastructure and technical support and offered incentives for faculty members who use emerging technology in their instruction. The College of Education also is committed to supporting these efforts by emphasizing instructional technology as a major strand of its long-range strategic plans.

### **Admission requirements**

There are two primary ways that students may be admitted into this certification:  
Students are admitted based on:

- 1) Current enrollment as a graduate student at the University of Houston;
- or
- 2) Admission as a temporary graduate student at the University of Houston.

## Applying for Admission

Certificate admission requirements are consistent with the graduate school standards at the University of Houston. In addition, there are the following requirements:

- 1) completion of a college degree;
- 2) college transcripts with an undergraduate average reflecting the ability to achieve a 3.0 average in graduate courses;
- 3) a statement from the applicant explaining why this Certificate is appropriate; and
- 4) work experience and career goals that indicate the appropriateness of this Certificate.

All potential students will complete an online IT Certificate application available on the IT Program website. Applicants will also sign a statement acknowledging that they realize that certificate admission has no effect on their future admission to a graduate program.

Upon approval by the IT Faculty, students will be assigned a faculty advisor. After meeting with their advisor, students may then enroll in classes. Graduate students in a Masters or Doctoral program should check with their academic advisor to see whether any or all of these courses can be used as electives for their degree objective.

## Curriculum

<u>Course</u>	<u>Offered</u>	<u>Faculty Member</u>
CUIN 7308: Computer Mediated Communication	spring	Lee
CUIN 7316: Design of Online Educational Resources I	fall & spring	Robin or McNeil
CUIN 7356: Topics in Distance Education	summer	Robin or McNeil
CUIN 7376: Design of Online Educational Resources II	summer	Lin

### CUIN 7308: Computer Mediated Communication

Prerequisite course: CUIN 6320 or permission of instructor. *Computer-Mediated Communication (CMC) refers to human communication via computers including emails, chats and discussion forums. In this course, we will study the characteristics of various forms of CMC and their implication to instruction and learning. With ever-growing interest in Web-based instruction and online learning environments, the researchers and practitioners have come to realize the importance of social and psychological aspect of CMC.*

### CUIN 7316: Design of Online Educational Resources I

Prerequisite course: CUIN 6320 or permission of instructor. *This course provides students with a strong foundation in HTML that will prepare them to succeed in the advanced IT web courses. Topics covered in the class include web server issues, multimedia and the web, stylesheets, cross-browser/platform coding issues, an introduction to web scripting, exposure to advanced web technologies as well as an exploration of user interface design topics. Upon successful completion of the course, students will have a web site for their portfolio.*

**CUIN 7356: Topics in Distance Education**

*This course examines the concepts, technologies and issues related to the development and delivery of distance education. Topics include: theory and history, distance education programs throughout the world, components of a distance education system, course design and development, technology and media, instruction and interaction, the student and teacher, and administration and policy-making in distance education.*

**CUIN 7376: Design of Online Educational Resources II**

Prerequisite course: CUIN 7316 or permission of instructor. *This course investigates the advanced design and development of online educational resources, including hands-on experience with user interface and accessibility, based on a systematized approach.*

**Certification Location**

These Certificate courses will be offered in a variety of formats, including, but not limited to, face-to-face on campus, face-to-face at satellite locations, hybrid, and completely online. Students will be able to choose the most convenient format to fit their needs.

**Advertising the Certificate**

Certification will be advertised in several ways. Members of the Instructional Technology faculty will visit Houston area schools to discuss the Certificate with in-service teachers and administrators. We will also post information about the Certificate on the College of Education website and send information to electronic mailing lists used by Houston area educators. In addition, we will try to identify other opportunities to promote the Certificate through print-based articles, announcements and brochures.

**Accreditation**

Although the IT Program is reviewed and accredited by the International Society of Technology in Education (ISTE), an affiliated professional association of the National Council for Accreditation of Teacher Education, these Certificates are not accredited.

**Transcription of the Certificate**

We request that a transcription of the Certificate be sent to student records (transcripts). Thus a student who completes this Certificate will receive an actual paper certificate, and the Certificate will be shown on their transcript.