

# Doctor of Philosophy in Education Program ***EDUCATIONAL TECHNOLOGY SPECIALIZATION***

University Of Hawai`i At Manoa  
College Of Education  
Honolulu, Hawaii

Additional material and updates can be found at the ETEC Web site:  
<http://etec.hawaii.edu>

The PhD Specialization in Educational Technology is designed to prepare influential professionals in the field of educational technology (ETEC). Graduates of the program are expected to assume leadership roles in a multitude of areas, including those who work in K-12 school districts, state departments of education, and higher education institutions, as well as government, health, and corporate settings. While some may become faculty members, the field offers opportunities for leadership in many contexts. Future careers may comprise teaching, training, instructional design, curriculum development, media production, online course development, technology utilization, management, or research and evaluation.

Scholars in the field explore the uses of innovative media and technologies for education, studying aspects from student learning and cognition to impacts on individuals and institutions. The field integrates the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning. As in all forms of applied technology, educational technology examines how theoretical knowledge and scientific principles can be applied to solve problems that arise in a social context. The field provides the research base for effective utilization of new media in education and by default is interdisciplinary in its approaches and theories.

The Educational Technology (ETEC) Specialization is one of seven areas of concentration in the College of Education PhD in Education program. The COE doctoral program was first established in the 1970s, with the ETEC specialization added in 2007. While the department has had a Master's program for over 20 years, the first ETEC doctoral class started in Fall 2007. The other specialization areas are Curriculum and Instruction, Educational Administration, Educational Foundations, Exceptionalities, Policy Studies, and Kinesiology. The College also houses a PhD in Educational Psychology, with each offering potential courses for cognate studies.

## **Program**

The PhD in Education is a college-wide degree program that combines common-core inquiry strand requirements and specialization-core requirements with a cognate area of study either within the College or in other colleges at the University of Hawai`i.

The specialization in Educational Technology includes the **College Inquiry Core** (12 credits), **Educational Technology Doctoral Core** (9 credits), **Emphasis Area** (15 credits), **Cognate Field** (12 credits), **Field Study or Internship** (3 credits), and **Dissertation** (1 credit) for a minimum of 52 required credits<sup>1</sup>. Depending on previous graduate work, some courses may be waived. Each student's program will be individually designed with his or her advisor.

The ETEC specialty has been designed to encourage intellectual excellence and participation in a scholarly community. Students begin with a mandatory New Student Orientation and complete two required seminars together in their first year in the program. The ETEC doctoral core and emphasis area courses are designed to provide students with an in-depth knowledge of the theory, skills and practice that guide the profession of education and educational technology. The cognate or minor is in a topic or disciplinary area outside of the ETEC department. In many cases, the cognate is inter- or multi-disciplinary. Cognate courses may be in another department within the College of Education or in a department or college outside of education. The cognate is designed by the student with his or her advisor based on dissertation and career goals. Students must pass a comprehensive exam based on their specialization and cognate areas of study.

### **Advising**

Each doctoral student is assigned an **interim advisor** who assists the student in setting up an individually designed course of study within the first semester of residency. Students are encouraged to discuss any changes in their course of study with their advisor prior to taking alternative courses. Upon advancement to candidacy, students select their own dissertation chair and committee, with the approval and consent of the designated faculty members (see below).

### **College Inquiry Core: (12 credit minimum)**

All PhD students must complete the College core. The College Core consists of at least *one* course from each in the following:

- Multiple Perspectives on Educational Research (one course)  
(EDEA 602, EDEF 678, SPED 642, EDCS 769)
- Individual Paradigms (One each, qualitative and quantitative)
  - Qualitative Methods (EDCS 632, EDEA 604)
  - Quantitative Methods (EDEP 601, EDEP/EDEA 629, ETEC 605)
- Advanced Methods for Dissertation Research (one course)  
(SOC 605, SOC 705, SOC/EDEA 608, EDEA 704, EDEA 780D, EDEP 606, EDEP 608, KLS 800, PH 754, EDCS 732, ANTH 710, HIST 602, PHIL 617, SPED 740)

### **Specialization Core (9 credits minimum)**

The specialization seminars are intended to establish crucial elements of scholarly inquiry so that students have substantive knowledge of the field, think theoretically and critically, frame fruitful research problems, see research as socially situated, join research to appropriate methods of inquiry, collect and analyze data, and communicate with various audiences about research.

A minimum of **two seminars** (one each fall and spring semesters) are *required* as a part of

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<sup>1</sup> COE graduate courses are typically three credits each. For example, 9 credits will equate to three courses.

the first-year experience to provide structure for the program and help develop a scholarly community. Students take at least **one additional seminar** as part of their advanced course work.

- ETEC 750B - Seminar in Educational Technology Issues: Instructional Development
- ETEC 750C - Seminar in Educational Technology Issues: Telecommunications
- ETEC 750D - Seminar in Educational Technology Issues: The Future
- ETEC 750E - Seminar in Educational Technology Issues: Research

### Area of Emphasis (15 credits)

Area of emphasis courses are selected from graduate-level offerings (600 level and above) within the ETEC department. This course work supports the ETEC specialization, providing all students with a solid foundation in educational technology theory and practice while advancing their knowledge in an area of emphasis. The advisor may recommend additional coursework to ensure an adequate breadth and depth of knowledge in selected areas and required competencies.

- For a complete list of courses and descriptions, see the ETEC Web site.  
<http://etec.hawaii.edu/courses.html>

All students who do **not** have a Masters degree in Educational Technology from UHM will be required to take the following courses as a part of their 15-credit Area of Emphasis. Students with Master’s degrees in educational technology from other institutions should discuss course requirements with their advisor. (See page 9 for descriptions)

- ETEC 600 - Theory and Practice in Educational Technology
- ETEC 603 - Instructional Design and Development

### Cognate Field (12 credits)

Upon consultation with and approval of the faculty advisor, students must declare a cognate area of study (12 credits) outside the ETEC department. The purpose of the cognate is to support the interdisciplinary vision of the PhD program and to strengthen and broaden the student’s expertise in education and/or in an area related to Educational Technology, or in the field in which they will conduct research and work. Cognate fields are frequently inter- or multi-disciplinary. Courses must be at a graduate level. Students with Master’s degrees in disciplines outside educational technology may be eligible to apply some course work to their cognate and should consult their advisor about course selection. A faculty member in the cognate area outside of the department will be selected in an advisory capacity as early as possible and consulted regarding courses the student will need to take in the cognate area. They will serve as the examiner for the cognate field on the comprehensive examination committee.

<b>Examples of Cognate Fields in the College of Education:</b>	<b>Examples of Cognate Fields outside of the College of Education:</b>
<ul style="list-style-type: none"> <li>• Curriculum Studies</li> <li>• Educational Administration</li> <li>• Educational Foundations</li> <li>• Educational Psychology</li> <li>• Policy Studies</li> <li>• Special Education</li> </ul>	<ul style="list-style-type: none"> <li>• Communications &amp; Information Sciences</li> <li>• Library &amp; Information Sciences</li> <li>• Human Resources Management</li> <li>• Information and Computer Sciences</li> <li>• Other fields that support a primary area of interest &amp; research, i.e., health &amp; medicine, business, arts &amp; sciences, law</li> </ul>

### **Field Study or Internship (3 credits)**

The student selects *one* of the following. A minimum of 3 credit hours is required.

- **EDUC 740: Field Project**, carries from 3 to 6 credits. This is an independent practicum or research pilot study designed in consultation with the students' advisor and carried out under a professor's supervision. This is a required and important part of the program, and cannot be waived based on prior field experience. However, students may elect to enroll in EDUC 799, described below as an alternative to the field project.
- **EDUC 799: Internship in College Teaching** consists of an agreement and partnership between a professor and doctoral student whereby the doctoral student serves as an apprentice to the professor; responsibilities include supervised teaching, planning and evaluation. Variable credit, 3 - 6 hours. Repeatable. CR/NC only.

### **Advancement to Candidacy**

A student is advanced to candidacy upon partial completion of the college core (9 units or the equivalent of demonstrated competencies) and the specialization core (6 units or the equivalent of demonstrated competencies).

### **Formulation of Doctoral Committee**

A doctoral committee is formed prior to the comprehensive examination and dissertation proposal. The student initiates, in consultation with his/her advisor, the formulation of the doctoral committee. The chair of the doctoral committee must be a full member of the graduate faculty in the College of Education PhD program and from the Specialization in Educational Technology in the student's area of emphasis. Of the five members, **three** must be from the College of Education ETEC Graduate Faculty of Education (GFE), and **one** must be from outside the college degree program and be a full graduate faculty at the UHM. The committee must include **one** representative from a field of study associated with the **cognate** field.

### **Comprehensive Examination**

Each student must pass a written, 10-day take-home and oral comprehensive examination. This examination tests the student's knowledge in the College Core (research), Specialization in Educational Technology, Area of Emphasis, and Cognate field. Generally, this exam is given in the semester that the student completes coursework and activities/products related to program competencies. Examination questions may be highly related to, but not restricted to, topics and issues of the dissertation.

In completing the exam, the student may refer to notes or references but is expected to produce original text which synthesizes knowledge and presents his or her own critical viewpoints on various aspects of the topics covered. Plagiarism of material is grounds for dismissal from the program. References must be given for all citations to the literature. The exam is conducted on an honor system basis, and the student is expected to work independently during this time period. Identical copies of the exam are given on the due date to all committee members, including the cognate and outside member of the committee. Upon an acceptable level of accomplishing the written portion of the exam, a two-hour oral examination is held, usually within two to three weeks of completion of the written exam. The committee deliberates and votes on whether to pass or fail the student upon completion of both the written and oral exam.

## **Research Problem and Dissertation Proposal**

The doctoral candidate will prepare a formal dissertation proposal that must be approved in writing by their committee.

The doctoral dissertation is a scholarly, original contribution of knowledge resulting from independent research and should be suitable for publication. It is the culminating experience of the doctoral program and as such should be a highly personal and unique experience, which will demonstrate the ability to carry out scholarly research in Educational Technology.

The dissertation includes a critical, exhaustive, and purposeful review of the related literature, an incisive and educationally significant problem statement, a carefully delineated research methodology, as well as a systematic and accurate organization and reporting of findings, well argued conclusions and recommendations for future research and applications for practice, if appropriate. Furthermore, all dissertation research must conform to the ethical standards of the field of education, related social science and humanities fields of study, and the University of Hawai'i ethical standards for research.

The student's choice and construction of a research methodology should be appropriate to the nature and complexity of the problem, and congruent with the problem statement of the dissertation. All coursework taken towards completion of the doctorate is potentially related and relevant to the student's growing expertise, practical working knowledge, and judgment as an educational researcher and dissertation author. The approval of the doctoral dissertation topic (Graduate School form II) must be signed prior to registering dissertation credits, EDUC 800.

In addition, if the dissertation research involves human subjects, a letter indicating that the Committee on Human Subjects at the University of Hawaii has completed a review of the proposal must be submitted at the time that the student files form II and before any collection of data.

### **Dissertation: (1 credit minimum)**

- **EDUC 800 - Dissertation Research**

A condition of enrollment in EDUC 800 is evidence that the doctoral candidate has passed the comprehensive exam and has received signed committee approval of his/her dissertation proposal and title. A student must be continuously enrolled Fall and Spring semesters until he or she graduates.

### **Final Oral Examination**

The doctoral candidate will successfully defend their dissertation in a publicly open, final oral exam. A final oral examination on the dissertation is required of all candidates for the PhD degree. The candidate's doctoral committee conducts the examination. It is a minimum of one hour in length.

## Doctoral Studies Progression Summary

1. Application and admission to the program
2. Mandatory orientation
3. Interim advisor consultation
4. Plan and approval of a PhD course of study
5. PhD course work requirements
6. PhD clinical/practical/teaching requirements
7. Advancement to Candidacy (Graduate Division Form I)
8. Comprehensive examination, written and oral
9. Permanent chair selection and doctoral dissertation committee formation
10. Approval of Dissertation Proposal (Graduate Division Form II)
11. Approval from UHM IRB of Dissertation Proposal
12. Form 2 Approved by Graduate Division
13. Enrollment for dissertation credits
14. Final Oral Defense of the Dissertation (Graduate Division Form III)
15. Approved Final Draft of Dissertation to COE PhD Chair (1 copy)
16. Submission of the dissertation to the graduate division, and completion of all Graduate Division requirements (2 copies)

## Admission Requirements

The admission requirements for the ETEC specialization are the same as those for the COE PhD in Education program. See the Grad Division Web site for details (under Education), <http://www.hawaii.edu/graduatestudies/fields/html/departments/efg/education/education.htm>.

The ETEC specialization does not require that students enter with a Master's degree in the field, but students with a Master's in another field and lacking an educational technology background may be required to complete additional course work to meet expected competencies. Admission to the specialization is competitive for the limited number of openings, so potential students are encouraged to prepare materials carefully and completely. Meeting minimum requirements does not ensure admission.

## Advising, Residency and Other Requirements

The PhD Specialization in Educational Technology adheres to all the rules and policies of the Graduate Field of Education for the PhD, the College of Education, and the Graduate Division. It is the responsibility of students to become informed about all of these rules and policies. See the Graduate Division Web site at <http://www.hawaii.edu/graduate/sitemap.htm>. This includes constructing, obtaining approval for, and using appropriate consent forms, if needed, for the dissertation research project. Regarding completion of the dissertation, it is recommended that students obtain the *Style & Policy Manual For Theses and Dissertations*, University of Hawai'i, Graduate Division. COE dissertations follow *APA Manual of Style* formatting.

The minimum **residency** requirement established by the Graduate Division is three semesters of full-time work or the equivalent in credits (8 credits per semester or a total of 24 credits) at the University of Hawai'i. Students are encouraged to spend as much time on campus as full time students as possible. While many ETEC courses are offered online or in hybrid (part online, part face-to-face), most courses outside the department are only offered on campus. Students must plan to spend several semesters on campus in order to take the appropriate coursework. The Graduate School requires students to **complete the program within seven years**.

Requirements specific to the Educational Technology include a **mandatory orientation** at the start of the first Fall semester, and a **laptop computer** for use in all ETEC courses as well as Internet connectivity for completing assignments outside of class (see the ETEC web site for details: <http://etec.hawaii.edu> ).

## College of Education Doctoral Student Association (COEDSA)

Each doctoral student is invited to participate in COEDSA, an organization whose purpose it is to provide professional development, collegial support among students, and the development of a doctoral student "voice" and presence within the College.

## ETEC Course Descriptions

### College Inquiry Core (12 credits)

- **ETEC 605 Conducting ET Research (3)** Application of methodological and statistical concepts to students' own research projects. Formative and summative evaluation, measurements, descriptive and inferential statistics.

See UHM department websites for offerings outside of ETEC.

### Specialization Core (9 credits)

- **ETEC 750 (B) Seminar in Educational Technology Issues) - Instructional Development (3)** Study and discussion of significant topics and problems in instructional development
- **ETEC 750 (C) Seminar in Educational Technology Issues - Telecommunications (3)** Study and discussion of significant topics and problems in telecommunications.
- **ETEC 750 (D) Seminar in Educational Technology Issues - The Future (3)** Study and discussion of significant topics and problems regarding the future.
- **ETEC 750 (E) Seminar in Educational Technology Issues – Research (3)** Study and discussion of significant topics and problems regarding research.

### Area of Emphasis Required Courses (15 credits)

- **ETEC 600 Theory and Practice in Educational Technology (3)** The profession of educational technology and the role of instructional designers. Theoretical and philosophical foundations underlying practice that include instructional systems theory, needs assessment, change theory, and relevant learning models. Practical applications of these theories to solve instructional problems in real-life settings.
- **ETEC 603 Instructional Design and Development (3)** Basic concepts and techniques of instructional design and development, for application to solving instructional problems in real-life situations.

For additional courses go to the ETEC website: <http://etec.hawaii.edu/courses.html>

## DOCTORAL FACULTY IN EDUCATIONAL TECHNOLOGY

The Graduate Faculty in Education (GFE) in educational technology consists of professionally and academically qualified personnel, each with many years of experience in different aspects of educational technology. The backgrounds of the faculty compliment each other so that the department can offer a strong and competent program.

### **Catherine P. Fulford, PhD Professor - Department & Graduate Chair**

(Instructional Systems) - Has a broad background in instructional systems, including needs assessment, instructional development, media production, and evaluation. Has experience in management of instructional and training systems, with emphasis in text, audio, video, and telecommunications media. Research areas are technology integration, distance education, and cognitive speed.

**Curtis P. Ho, PhD Professor** (Educational Technology) – A specialist in interactive technologies including Internet, CD-ROM, and video for distance learning. Has extensive experience in designing instructional and training programs for all levels of education and in private sectors. Research areas are: technology integration, video and multimedia, and, distance education and socio-cultural impact.

**Ellen Hoffman, EdD. Associate Professor** (Educational Leadership) – Has a background is in anthropological archaeology and journalism, and technology management. Has worked as a K-12 teacher and consultant for school districts, community college, and a state department of education. Research areas include digital libraries, technology policy, distance education, digital libraries in schools, information literacy, usability of networked information systems, and systemic change at the K-12 and higher education levels.

**Peter Leong, PhD, Assistant Professor** (Computing and Information Sciences) – Has five years experience in the development and delivery of online courses and distance education. Research areas include the role of social presence and cognitive absorption in student satisfaction with online learning environments and faculty development.

**Paul B. McKimmy, EdD. Specialist** (Educational Leadership) - Has a background in training design for education and business, continuing education, technology management, and application of information technology. Microsoft Certified Systems Engineer and Distance Education Certified Professional with experience working with distance delivery of courses and programs. Research areas are distance education and asynchronous instructional design.

**Michael Menchaca, EdD. Assistant Professor**, (Educational Technology) - Has expertise in online learning, community-based learning, staff development, graduate programs, technology standards, and instructional design. He has collaborated and consulted with K-12 schools, districts, and county offices. Research areas are: educational technology, online teaching and learning, distributed/distance education, multiculturalism and social justice, and communities of practice.

**Christine K. Sorensen, PhD Professor - Dean** (Professional Studies in Education) - Has a broad background in research and evaluation as well as in distance education, technology integration and organizational change in education. Research areas include interaction patterns in distance education, active learning strategies in distance education, and the impact of technologies on learners and the learning environment.

**For information about the PhD Specialization in Educational Technology contact:**

Ellen Hoffman, ETEC PhD Specialization Coordinator  
Educational Technology Department, Wist Hall 231  
College of Education, University of Hawai'i at Manoa  
1776 University Avenue, Honolulu, Hawai'i, 96822,  
Email: [ehoffman@hawaii.edu](mailto:ehoffman@hawaii.edu)

The administrative office for the ETEC department is located in Wist 231. Contact the department secretary, **Bev Suemoto**, for support on administrative issues regarding the ETEC specialization. Email: [suemoto@hawaii.edu](mailto:suemoto@hawaii.edu) Phone: (808) 956-7671.

Updates and additional detail on the ETEC specialization and department can be found at the ETEC web site: <http://etec.hawaii.edu>

**For information about the PhD Program in Education, including application information, contact:**

Helen Slaughter, PhD Doctoral Chair  
Doctor of Philosophy in Education  
Educational Foundations Department, Wist Hall 113  
College of Education, University of Hawai'i at Manoa  
1776 University Avenue, Honolulu, Hawai'i, 96822  
Email: [slaughte@hawaii.edu](mailto:slaughte@hawaii.edu)

The administrative office and secretary for the Ph. D. Program in Education is located in the Educational Foundations Department, Wist Hall 113, 956-7817. The field of study for all matters going to the graduate division is "education," not the specialization.

**Applications for admission may be found on the University of Hawai'i at Manoa Graduate Division Web site.**

<http://www.hawaii.edu/graduatestudies/fields/html/departments/efg/education/education.htm>

## ***ETEC Doctoral Specialization Course Requirements***

<b>College Inquiry Core (12 credits)</b>	<b>Proposed Sequence</b>	<b>Course Taken</b>	<b>Semester Taken</b>
Multiple Perspectives on Educational Research (select one: EDEA 602, EDEF 678, SPED 642, EDCS 769)			
Individual Paradigms:			
Qualitative Methods (select one: EDCS 632, EDEA 604, ETEC 606)			
Quantitative Methods (select one: EDEP 601, EDEP/EDEA 629, ETEC 605)			
Advanced Methods for Dissertation Research (select one: SOC 605, SOC 705, SOC/EDEA 608, EDEA 704, EDEA 780D, EDEP 606, EDEP 608, KLS 800, PH 754, EDCS 732, ANTH 710, HIST 602, PHIL 617, SPED 740)			
<b>ETEC Specialization Core: (9 credits)</b>			
Seminar ETEC 750 (one each first fall & spring, one add'l after first year)	Fall 200__ Spring 200__		
<b>Area of Emphasis: (15 credits)</b>			
ETEC 600	Fall 200__		
ETEC 603	Spring 200__		
ETEC elective			
ETEC elective			
ETEC elective			
<b>Cognate Field: (12 credits)</b>			
<b>TOPIC</b> _____			
Cognate			
Cognate			
Cognate			
Cognate			
<b>Field Study or Internship: (one course)</b> EDUC 740 or EDUC 799 (3-6 cr)			
<b>Dissertation: (1 credit minimum)*</b>			

*Note: all graduate courses are 3 credits except where indicated, only courses 600 or above count for doctoral credit*

\* After advancement to candidacy, must enroll every fall and spring until completion.