University of Connecticut

The Neag School of Education

Department of Educational Psychology

Cognition, Instruction, & Learning Technology Graduate Program

Doctoral Handbook

2021-22

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CILT PROGRAM OVERVIEW

How do people think and learn, and how can an understanding of cognition be put into practice to design learning and literacy environments? These are questions central to the Cognition, Instruction, and Learning Technology program (CILT). Our graduate programs focus on applying theory and research on learning, thinking, literacy and teaching, to instructional practice for learners of all ages in both formal and informal learning environments. Core courses focus on research methodology, assessment, perception, learning, cognition, instructional design, cognitive development, instructional theories and models derived from cognitive science.

The Department of Educational Psychology (EPSY) has a Ph.D., Master's degree program and a Sixth-Year Professional Diploma program in CILT. These graduate programs are structured to prepare professionals whose primary interests involve issues of cognition, learning technologies and teaching, bridging the gaps among psychological theory, research, and educational practice.

COGNITION, INSTRUCTION & LEARNING TECHNOLOGY FACULTY

Dr. Michael F. Young
Associate Professor of Educational Psychology

Research Interests: Situated Cognition as a Theory for Thinking and Learning; Development of Instructional Technologies; Log-File Analyses and Assessments.

E-Mail: michael.f.young@uconn.edu

Dr. Scott W. Brown
UConn Board of Trustees Distinguished Professor of Educational Psychology

Research Interests: Problem-based Learning; Learning Technologies; Memory Systems; Problem Solving; Decision Making, Learning and Assessment.

E-Mail: scott.brown@uconn.edu

Dr. James C. Kaufman
Professor of Educational Psychology

Research Interests: Creativity; Personality; Individual Differences.

E-Mail: james.kaufman@uconn.edu

	Dr. Kathleen Lynch Assistant Professor of Learning Sciences **Research Interests:** Education policies to strengthen STEM outcomes for academically vulnerable children; Teacher professional development and curriculum reform; Personalized learning; Out-of-school time in STEM E-Mail: kathleen.2.lynch@uconn.edu
	Dr. Ido Davidesco Assistant Professor of Learning Sciences **Research Interests:** Neuroscience of Learning; STEM Learning; Authentic Research in K-12 Science Classrooms; Teacher-Scientist Partnerships E-Mail: ido.davidesco@uconn.edu

CILT PROGRAM PHILOSOPHY AND GOALS

The faculty are committed to a learning environment that stresses a well-organized and explicit curriculum with clear expectations. However, there is also a strong commitment to informal student-faculty interaction that further encourages the student's professional development and identification with the field. In addition, the program is designed to acquaint students with the diversity of theories and practices within the field of CILT, allowing the student sufficient intellectual freedom to experiment with different instructional delivery systems and various theoretical bases.

The atmosphere is intended to enhance student-faculty interaction, critical debate, and respect for theoretical diversity of practice, leading to an intense and exciting learning experience. Such a philosophy encourages and reinforces creativity and intellectual risk-taking that are fundamental in the student's further development in CILT.

I. *Personal Characteristics.* Students' professional activities are expected to conform to the ethical standards outlined by the American Psychological Association (APA); and in addition, students' professional activities are to be characterized by:
   A. An appreciation of diversity and commitment to service that respects the worth, uniqueness, and potential for growth and development of all individuals.
   B. Ethical behavior, including respect for copyright and confidentiality, and the Responsible Conduct of Research (RCR).
   C. The ability to work independently and collaboratively.
   D. Communication skills in writing, speaking, and multimedia formats.
   E. Commitment to life-long learning and continuing professional growth.

II. *Academic Knowledge.* Students are expected to be knowledgeable and possess in depth understanding of the following core content areas:
   A. Motivation
   B. Cognitive Processes
   C. Social Cognition
   D. Human Development
   E. Instructional Design
   F. Creativity and Intelligence
   G. Behavior Analysis
   H. History of Learning
   I. Research Methodology
   J. Learning Technology
   K. Multiculturalism/Diversity

THE ADMISSIONS PROCESS

(http://epsy.education.uconn.edu/programs/cognition-instruction-learning-technology/future-students/how-to-apply-phd-program/)

The deadline for submitting an application for consideration to the Ph.D. in the CILT program for the Spring semester is **November 1st** and for the Fall semester, it is **December 1st**. Applications submitted after these dates will not considered.

To apply:

Complete the online application to the Graduate School.

Submit the following materials, in one completed packet, to the Graduate School:

- o Official transcripts of all collegiate work completed to date;
- o Three letters of reference addressing your potential for success in graduate school and beyond;
- o Personal statement detailing your fit with the CILT program, a potential major advisor, and your future goals;
- o CT Residence Affidavit;
- o GRE scores; (NOTE: T*he advanced tests, are not required);*
- o TOEFL (international students only);
- o A current résumé or curriculum vita (cv) of not more than two pages.

Taken together, the documents in your application file should provide a compelling argument for why you aspire to doctoral work. We strongly suggest that you:

- Seek excellence in the documents you submit.
- Provide explanations for your application materials.
- Help the Admissions Committee understand:
  - o *Why do you want the degree?*
  - o *Why do you want to earn the degree at UConn?*
  - o *What are you curious about?*
  - o *Which current faculty appear to have interests most similar to your own?*

To the committee, the documents in your application folder must present a persuasive argument for investing in your long-term goals.

Residency

Although the CILT Ph.D. program is designed to encourage full-time graduate study, some students work part-time in the community. In most cases, these part-time positions are related to the student's graduate program and consequently may even enhance the student's skills, professional maturity, and overall educational goals.

Given the intensity of doctoral preparation necessary to assume top leadership roles as university faculty, researchers, administrators, or policy makers, the department ordinarily admits full-time doctoral scholars. Part-time study requires at least one-year of full-time study.

Advisor

Before submitting your application materials, study the faculty biographies on our department's website to learn about the people, research, grants, courses, and traditions that are part of our scholarly community. In particular, you should determine if there is a match between your goals and a Graduate Faculty member in the program. If so, you should contact that faculty member to discuss your goals. Make note of who you would like your initial faculty advisor to be on the front cover of your application. Also identify him or her in your *Personal Goal Statement* and why you feel this would be a match.

Personal Goal Statement

The CILT faculty will read your statement with great care. Your statement should include detailed reasons for pursuing doctoral study. The statement should discuss:
1) Your Background
   a) How your experiences (education, work, volunteer, or personal) have prepared you for the rigors of doctoral study.
2) Your Goals for Doctoral Study
   a) Your career goals, initial research interests, intended faculty advisor, and how you feel these match the program and your intended faculty advisor's work.

The information in your Personal Goal Statement is used to determine how well your goals align with the interests and expertise of the CILT faculty, and to determine if the faculty member you indicated is available to serve as your advisor. It is essential that your Personal Goal Statement be detailed, well-written, and composed with cognizance of the specific areas of graduate specialization available in the department.

If you have been encouraged by a specific professor to apply as a prospective doctoral advisee of him or her, you should mention that faculty member in the statement. Your statement should be double-spaced, 12-point font, and between 500-1,000 words.

Interview

In most cases, promising applicants will be scheduled to interview with the CILT faculty. Ordinarily, the interview will be located at the Storrs campus, although, a telephone or internet interview can be arranged.

The Admission Committee Decisions

The admission committee review process can result in two possible decisions, which are described below.

1. *Admission*: Every student who has been accepted for doctoral study is mailed a letter from the Graduate School informing him or her of this action. The letter names your area of study within the department and the faculty member who has agreed to serve as your major graduate advisor.

2. *Denied Admission*: Every student who has not been accepted for doctoral study is mailed a letter from the Graduate School informing him or her of this action.

Reapplication for admission and consideration by the Committee may be made in the year following the initial application but not until additional evidence is available to the Committee (e.g., additional testing, further graduate work, or additional recommendations from faculty).

YOUR MAJOR ADVISOR AND ADVISORY COMMITTEE

Each student upon formal admission to the Ph.D. program in CILT is assigned a major advisor who will guide the student in developing their plan of study. During the second semester of the program, the student selects an advisory committee chairperson and two committee members to advise and direct the student's course of study.

Students are evaluated with a variety of methods throughout the program. In addition to formal evaluations such as course grades, the faculty may evaluate the student's progress through the student's professional activities, such as research projects, and authored papers presented and publications. An annual faculty review of the student's progress is conducted by the advisory committee and CILT faculty. In order to continue on the program, students must make satisfactory progress annually through the program as deemed by the advisory committee and CILT faculty.

THE PLAN OF STUDY

The Plan of Study outlines the coursework, professional experiences, and research efforts that a doctoral student will undertake. Because the Ph.D. in CILT is a research-oriented degree, it is granted to a graduate student only when evidence indicates a pattern of *pursuing powerful ideas*, *developing distinctive expertise*, *cultivating professional commitments*, and *engaging an able imagination* (see Departmental Values). The degree is never awarded solely for a required period of study or the completion of a prescribed program of course work. Although minimum credit requirements are established to ensure a common ground for graduate students to develop emerging expertise, the Plan of Study is a means for cultivating these values and patterns of scholarly engagement, not a mechanism for tallying credits.

General Features

The Plan of Study is developed between the Advisory Committee and doctoral student. As required by the Graduate School, the Plan:

- Must be submitted when the student has completed no more than 12 credits of coursework.
- Must be submitted to the Graduate Records Office for approval by the Executive Committee of the Graduate Faculty Council.
- Must be submitted before the student takes the General Examination.
- Must include 20 to 24 credits of coursework beyond the Master's degree, exclusive of any related or supporting area offered in lieu of a non-credit language requirement.
- Must include at least six credits of advanced work in a related or supporting area, or, students must demonstrate that they have competent reading knowledge of a least one foreign language appropriate to the general area of study.
- Must include at least 15 credits of GRAD 6950, Dissertation Research, must be included in the plan of study.
- May include credits from other institutions, as well as non-matriculated credits, so long as they are post-Master's degree credits.
- May include credits acquired while pursuing a Sixth Year Certificate, with approval of the Advisory Committee.

Required, Recommended, and Optional Courses

The list below presents courses taken by students in our Ph.D. program. The list includes core courses that all students must take. In addition, the list presents courses that are recommended for each of the three emphases (i.e., instructional psychology, educational technology, and measurement and evaluation) sponsored by our program.

Core Courses for Graduate Students in CILT

EPSY 5605 Quantitative Methods in Research I
EPSY 5607 Quantitative Methods in Research II
EPSY 5510 Learning: Its Implications for Education
EPSY 5602 Educational Tests and Measurement
EPSY 5220 Introduction to Educational Technology
EPSY 5621 Construction of Evaluation Instruments
EPSY 5613 Multivariate Analysis in Educational Research
EPSY 5515 Professional Seminar in Cognition & Instruction (2 Credits)
EPSY 5530 Theories of Learning, Cognition, and Instruction
EPSY 5520 Instructional Design
EPSY 5540 Research Ethics in Education and Psychology
EPSY 6601 Principles and Techniques of Educational Research
GRAD 6950 Dissertation Preparation (15 credits)

Recommended Courses for Graduate Students in CILT

EPSY 5230 Web-based Learning
EPSY 5195 Distance Learning
EPSY 5240 Interactive Learning Environments
EPSY 6230 Advanced Educational Technology
PSYC 5615 Human Factors
PSYC 5621 Simulation and Training
EPSY 5302 Program Evaluation
EPSY 5750 Creativity
EDLR 5302 Program Evaluation for School Improvement
EDCI 5875 Multicultural Education
EDCI 6000 Qualitative Methods of Educational Research I
EDLR 6052 Qualitative Methods of Educational Research II
EPSY 6560 Instructional Psychology
EPSY 6626 Sampling and Survey Research Methods
EPSY 6636 Measurement Theory and Application
EPSY 6637 Item Response Theory
EPSY 6611 Logistic and Hierarchical Linear Models
EPSY 6194 Doctoral Seminar: Motivation
EPSY 6550 Situated Cognition
PSYC 5420 Cognitive Development
PSYC 5567 Cognition
PSYC 5572 Sensation and Perception II
PSYC 5575 Introduction to Cognitive Systems
EDLR 5203 Adult and Experiential Learning
EDLR 5201 Influences on Adult Learning

THE COMPREHENSIVE EXAMINATION

The Comprehensive Examination procedures for Cognition, Instruction, and Learning Technology (CILT) consists of a portfolio assessment in the areas covered in core CILT courses and representative of each student's program. Students will submit an independently designed portfolio consisting of their best research work, comprehensively representing their breadth and depth of knowledge and research capabilities acquired through their program of study at the University of Connecticut. The comprehensive examination process culminates in an oral examination arranged by the student's advisory committee. Please refer to [CILT Ph.D Comprehensive Examinations](#) on the [CILT website](#) for [more information](#).

THE DISSERTATION

Dissertation research is the vehicle through which students learn to independently conduct, complete, and communicate research. The doctoral dissertation should reveal the student's ability to discover, analyze, interpret, synthesize, and disseminate information through the process of:

(1) Generating a research question of interest and import to the student's chosen field;
(2) Placing the research question in the context of research literature relating to the project with a particular emphasis on prior scholarship on which the dissertation is built;
(3) Describing and executing appropriate methodology;
(4) Presenting results in a logical manner; and
(5) Fully and coherently discussing the meaning of the results.

The dissertation should be:
(1) Original (i.e., it builds on or extends what is currently known).
(2) Substantial and researchable (i.e., it addresses a significant problem that:
    (a) Poses a puzzle to the field at a theoretical, methodological, or policy level;
    (b) Requires an analytical discussion, beyond simple cataloging or describing; and
    (c) Employs a reasonable research methodology).
(3) Manageable (i.e., the scope of the project is appropriate given limited time and resources).

Educational Psychology Department Dissertation Rules and Guidelines

The Department of Educational Psychology maintains a number of online resources to help students successfully navigate and complete the dissertation process:

Educational Psychology Department Dissertation Proposal Guidelines
http://epsy.education.uconn.edu/wp-content/uploads/sites/684/2014/08/Dissertation-Proposal-Guidelines-and-Forms.pdf

University of Connecticut Graduate School Dissertation Submission Requirements
http://studentservices.uchc.edu/registrar/gradschool/forms/guide_dissertation.pdf

HELPFUL RESOURCES

The CILT website includes a collection of resources that students have found to be helpful. These include documents containing advice from professor and students perspectives.

Financial Support

The Department of Educational Psychology has a very limited number of graduate research assistantships and fellowships for CILT Ph.D. students. Positions are competitive and generally students must apply annually for positions as funding patterns often change. Check the CILT website often for updates on open positions and other opportunities.

Laptops

All CILT students are expected to begin their graduate studies with a laptop, as this is considered a critical tool for your academic development. Information on the type of laptop and configurations are updated annually and listed at http://epsy.education.uconn.edu/programs/educational-technology/future/computer-recommendations/

The CILT Program Website

There are many current useful resources available on the CILT program website located at http://cilt.education.uconn.edu/. You are encouraged to check it often for updates and news links relevant to your graduate studies. You can also follow update on FaceBook at https://www.facebook.com/UConnCILT