LEARNING & COGNITION PROGRAM

Department of Educational Psychology
University of Utah

**Handbook for Students
and
Guide to Graduate Study**

2024-25

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Introduction

The Learning Sciences Program is concerned with learning, cognition, instruction, and the research methodologies used to investigate these areas. The Program is comprised of three areas: Learning and Cognition, Instructional Design and Educational Technology (IDET), and Statistics. Each of these areas separately admits students and specifies particular courses of study.

Learning and Cognition

Overview

The Learning Sciences program provides training in cognitive processes and emotion regulation, learning and instructional practices, and research methodology. Areas of faculty expertise include STEM (science, technology, engineering, and mathematics) education, cognition and emotion regulation, and reading. Research in this program contributes not only to foundational theory in the learning sciences, but it also informs the design and development of effective educational materials and interventions. We seek to advance fundamental understanding of how, when, why, and for whom learning occurs in varied contexts.

The Learning and Cognition area grants the following degrees: Master of Arts (MA), Master of Science (MS), Master of Philosophy (MPhil), and Doctor of Philosophy PhD). Students in this area acquire theoretical knowledge of psychological and/or educational principles and the methodological skills necessary to conduct original research on a variety of topics such as those outlined above.

Career Options

Graduates of the Learning and Cognition area are prepared for several career paths. Those receiving the doctoral degree are prepared for academic careers or for research across a wide array of industry, government, and school-related contexts.

Program Model

Students in the Learning and Cognition area work closely with a faculty member under a mentorship model, a principal focus of which is conducting research. This includes, but is not limited to, theses and dissertation projects.

The program consists of four components:

1. *Required Core Coursework.* Students complete a set of required core courses that ensure a thorough foundation in psychology and educational psychology, research methodology, and learning and cognition. Students who enter the program without sufficient background may need to complete additional coursework beyond the requirements outlined in this document. In addition to substantive courses in psychology and education, this coursework includes a strong background in statistics and research design.

2. *Area-Specific Coursework.* Students complete a set of courses tailored to their individual interests and career goals. These courses are selected with the approval of the student's major advisor.

3. *Collaborative Research.* Students work in collaboration with a faculty member on research projects, including the required 3 comprehensive projects. This provides the student with "hands on" experience conducting research under close supervision of an experienced researcher and supervisory committee.

4. *Independent Research*. Students conduct independent master's and/or doctoral research on a topic chosen in collaboration with his or her major advisor. Students who are admitted for the PhD, but who have not completed a MS or MA with an empirical thesis in Educational Psychology or an area related to educational psychology, are required to earn the MS degree en route to the PhD. Those coming into the program with an appropriate Master's Degree that did not include a thesis will be required to complete a thesis-like research project prior to their dissertation research.

Students are admitted to either the MA/MS or the PhD program. The requirements for the MA are essentially the same as those for the MS, but also require passing a language requirement as specified by the Graduate School of the University of Utah. Students are not admitted to the Masters of Philosophy (MPhil) degree; it is awarded to students who have completed all the requirements for the PhD except the dissertation and are unable to complete the dissertation and the PhD. The MPhil is a terminal degree; students who receive it and wish to complete the PhD must rescind the MPhil prior to pursuing the PhD.

Laboratories and Research Projects

The Learning and Cognition area operates several research laboratories. These laboratories are overseen by department faculty and are used by both students and faculty to explore theoretical and applied research questions.

Laboratory for Learning and Cognition. The Laboratory on Learning and Cognition is shared by the Learning Sciences faculty. The Laboratory features several IBM PC compatible data collection computers, as well as work space for graduate students and research assistants. Reaction time experiments are programmed using the E-Prime experimental authoring system. Research conducted in the Laboratory for Learning and Cognition has involved the acquisition of cognitive skills, undetected errors in cognitive skills, priming processes in memory, and the perception of frequency of events.

Reading Laboratory. The Reading Laboratory is directed by Anne E. Cook and is located in the BUC building on campus. The Laboratory features an SMI Eyelink remote eye-tracker. Research conducted with the eyetracker has involved the psychology of reading, the psychology of writing, cognitive processes in autism, and the detection of deception.

Multimedia and Instructional Design Laboratory. The MIND (Multimedia and Instructional Design) lab is directed by Kirsten Butcher and is located in the BUC building on campus. The MIND lab facilitates mixed-methods learning and usability research focused on educational technology. The MIND lab is designed to accommodate studies on individual learning and collaborative learning with technology and includes hardware (e.g., video cameras) and software (e.g., screen capture technology) that supports the collection and analysis of rich user data.

Zummo Lab: Dr. Zummo's research is conducted in both the Educational Psychology Department and the Natural History Museum of Utah. Research examines social, cultural, and cognitive influences on the learning process around controversial issues in science, such as climate change, and argues for greater attention to the political culture and identity of science learners. Drawing on sociocultural theory, as well as concepts from political psychology and communication, Dr. Zummo uses mixed methods to understand how people think, learn, and teach about science. Her research aims to support all people in using science to make sense of the world in their daily lives in ways that fit with their ideas of who they are.

STEM Learning Lab. The STEM Learning Lab is run by Tracy Dobie, Lauren Barth-Cohen, and Lynne Zummo and focuses on work at the intersection of the Learning Sciences and Mathematics and Science Education research. Research within this group applies a range of theoretical perspectives – including cognitive and sociocultural theories of learning – to investigate both student and teacher learning and engagement across grade levels in formal and informal learning environments. In recent years, research conducted by this group has focused on improving elementary mathematics and science methods classes through new tools and techniques to support pre-service teacher learning. Research questions have explored learning and reasoning processes in math and science contexts; engagement, power, and social dynamics in learning environments; and issues of identity and culture in STEM learning. Collaboration with practicing teachers and public schools is an important component of research conducted in this group. Graduate students working within this group learn skills related to the collection and analysis of qualitative and quantitative data in a variety of settings, along with specialized training in qualitative and mixed methods analysis of video, audio, text, and artifacts. The group is equipped with a range of data collection tools and analysis software including video cameras and external microphones.

The Life Right Here and Everywhere Research Project. This project is funded by NSF through 2024; the PI is Nancy Songer, who is also the Associate Provost of STEM Education and the Director of the Usable STEM Research and Practice Hub. Our world is challenged by environmental, educational, health, and economic challenges with foundations in Science, Technology, Engineering, and Mathematics (STEM) disciplines. To address these challenges, we cannot rely on individuals or even experts within one area of science, technology, engineering, mathematics, or education. We must innovate with, study, and empower students, teachers, community members, and university and industry partners toward collective action. Our

planet is home to 1.8 billion young people between 10 and 24, many of whom are increasingly motivated to explore the design of solutions even if their formal schooling rarely provides learning opportunities to innovate and design.

This project focuses on designing and evaluating middle and high school curricular resources where students join and become teams of scientists and engineers to generate solutions to local STEM challenges. Graduate student and postdoctoral work include curriculum design, teacher professional development, assessment design, learning technologies design, classroom-based and out-of-school quantitative and qualitative research studies, writing, and presenting at regional and national conferences.

Ambitious and Equitable Teaching. This group is led by David Stroupe, who is also the Director of Research at the Usable STEM Research and Practice Hub. He has three overlapping areas of research interests anchored around ambitious and equitable teaching. First, he frames classrooms as science practice communities. Using lenses from Science, Technology, and Society (STS) and the History and Philosophy of Science (HPS), he examines how teachers and students disrupt epistemic injustice through the negotiation of power, knowledge, and epistemic agency. Second, he examines how beginning teachers learn from practice in and across their varied contexts. Third, he studies how teacher preparation programs can provide support and opportunities for beginning teachers to learn from practice.

The Science of Learning, Computation and Cognition (SLCC) Lab. The SLCC lab is directed by Brendan Schuetze. Research focuses on the application and development of quantitative methods for understanding the psychological processes (memory, metacognition, and motivation) involved in self-regulated learning. The enduring goal of the SLCC Lab will be to develop social scientific theory, resources for teachers, and personalized interventions for students that enable a more equitable and constructive education system. Graduate students in this lab will benefit from training in the tools of experimental/cognitive psychology, statistical modeling, and formal theory development.

Faculty Research Interests

Lauren Barth-Cohen: Science education; students learning of science content and knowledge building scientific practices; elementary school students learning of computational thinking skills; in-service and pre-service science and math teachers learning of STEM content and instructional practices for teaching STEM; qualitative research methods.

Kirsten Butcher: Impact of multimedia, visual representations, and personalized educational technologies on learning processes and outcomes (including deep comprehension and transfer); cognitive processes involved in interactive, visually-based technologies; design and evaluation of online systems and digital tools to support STEM (Science, Technology, Engineering, and Mathematics) education.

Anne Cook: Basic cognitive processes involved in reading and text comprehension process; cognitive impairments in autism; cognitive processes involved in deception; use of eye-tracking methodology to explore questions in reading, learning, other applied domains.

Tracy Dobie: Mathematics education; mathematics teacher education; students' perceptions of the usefulness of mathematics; motivation and equity in elementary and middle school mathematics education.

Chenglu Li: transformative impact of emerging learning technologies on STEM education and online learning; learning spaces using artificial intelligence, the internet of things, and computer-based simulations and modeling, aiming to facilitate learning in a variety of classroom settings and digital platforms learning analytics and educational data mining
ng to facilitate learning in a variety of classroom settings and digital platforms learning analytics and educational data mining

Brendan Schuetze: Applications of cognitive science to education, learning strategies, metacognitive processes, self-regulated learning, formal and computational models, heterogeneity of treatment effects, educational interventions

Nancy Songer: STEM Education; designing and evaluating educational resources for teachers in STEM Ed

David Stroupe: Ambitious and equitable science teaching; classrooms as science practice communities; epistemic injustice; how beginning teachers learn from practice in and across their varied contexts; teacher preparation programs

Wei Wei: Psychology of reading; psychometrics and statistics.

Robert Zheng: Multimedia learning, individual differences, cognitive load, integration and design of instructional/educational technology, self-regulated learning, situated learning, multiple rule-based problem solving, cyber learning and asynchronous/synchronous communication.

Lynne Zummo: Social, cultural, and cognitive influences on the learning process around controversial issues in science, such as climate change, and greater attention to the political culture and identity of science learners; mixed methods.

General Program Curriculum Guidelines

MS/MA Required Coursework (minimum 39 semester hours)

The below coursework is required for students admitted with a bachelor's degree to either the MA/MS or PhD program; students who are continuing on to the PhD after the master's degree should complete the below requirements as well as the requirements on p. 11 of this handbook.

Degree	Category	Minumum # of Credits	Pre-Approved Courses: Number, Title, (Credits)
MS, MA PhD	Foundations of Learning and Cognition	9	**Take all 3:** • EDPS 7863: Cognitive & Affective Bases of Behavior (3) • EDPS 6451/7451: Foundations of Learning (3) • EDPS 7860 Learning Sciences: Research and Methodological Perspectives (3)
MS, MA PhD	Basic Statistics & Methodology	12	**Take all 3:** • EDPS 7010 Quantitative Methods I: Foundations of Inferential Statistics (3) • EDPS 7020 Quantitative Methods II: ANOVA and Multiple Regression (6) • EDPS 7300 Psychometric Theory (3)
MS, MA only	Electives	9	**Choose 3:** • Any course from the *Advanced Methodology & Statistics section* (p.11). • Any course from the *Diversity Learning* section (p. 11). • Any course from the *Specialty Topics in Learning and Cognition* section (p. 11).
MS, MA only	LS Seminar	3	• EDPS 7440 Learning Sciences Seminar (1) – repeat for 3 semesters
MS, MA only	Thesis	6	• EDPS 6970 Graduate Thesis: Masters (variable)

Note: A program of study within this framework must be approved by each student's supervisory committee. Variation from the above requirements should be approved in advance by the program director or thesis advisor.

*Sample course sequence for student entering with BA/BS or non-thesis MS degree**

Year 1 -- fall	Year 1 -- spring
EDPS 7010 (3 credits)	EDPS 7020 (6 credits)
EDPS 7451 (3 credits)	EDPS 7440 (1 credit)
Elective (3 credits)	EDPS 7860 (3 credits)
EDPS 7440 (1 credit)	
Year 2 – fall	Year 2 -- spring
EDPS 7300 (3 credits)	EDPS 7440 (1 credit)
EDPS 7440 (1 credit)	EDPS 6970 (3 credits)
EDPS 7863 (3 credits)	electives (6 credits)
EDPS 6970 (3 credits)	
Form supervisory committee File forms for program of study and application for admission to candidacy	

Although this is a sample program of study, individual student needs should be addressed in regular meetings with the student's advisor.

Note that if you choose to pursue an MA instead of MS, there is an additional language requirement (Information below obtained from the Graduate School website):

Language Requirements

Candidates for the M.A. degree must be certified by the Department of Languages and Literature as having demonstrated "standard proficiency" in at least one foreign language. However, departments may establish additional language requirements for the M.A. degree. There is no University-wide foreign-language requirement for the M.S. degree, but departments may establish their own language requirement. The major department determines the foreign language in which each candidate is required to demonstrate competence. The Language Verification Form for certification is available in the Department of Languages and Literature. For additional information, see also Language Proficiency Requirements elsewhere in this section of the catalog.

Graduate Catalog: Language Requirements

Departments may require "standard proficiency" or "advanced proficiency" in language competence in one or more foreign languages for graduate degrees.

Standard proficiency assumes a reading-comprehension level expected of a student who has completed one year of college foreign-language instruction or the equivalent. Students may verify standard proficiency in one of the following ways:

1. Complete a second-semester language course (1020), or the equivalent at another institution, with at least a B grade (3.0). Submit a grade report or transcript to the Department of Languages and Literature, 1400 Language and Communication Building, for verification. Courses must have been taken not more than six years prior to the date of application for language verification.

2. Pass the MLA (Modern Language Assessment) for French, German, Italian, Russian or Spanish in the Testing Center with a score indicating standard proficiency. Testing for most other common languages is available through Brigham Young University. Students interested in taking the MLA should first contact the Department of Languages and Literature for instructions and authorization.

3. Pass a foreign language examination designed by the major department in consultation with the Department of Languages and Literature.

Advanced proficiency assumes a reading-comprehension level expected of a student who has completed two years of college foreign-language instruction or the equivalent. Students may verify advanced proficiency in one of the following ways:

1. Complete a fourth-semester language course (2020), or equivalent at another institution, with at least a B grade (3.0). Submit a grade report or transcript to the Department of Languages and Literature, 1400 Language and Communication Building, for verification. Courses must have been taken not more than six years prior to the date of application for language verification.

2. Pass the MLA (Modern Language Assessment) for French, German, Italian, Russian or Spanish in the Testing Center with a score indicating advanced proficiency. Testing for most other common languages is available through Brigham Young University. Students interested in taking the MLA should first contact the Department of Languages and Literature for instructions and authorization.

3. Pass a foreign language examination designed by the major department in consultation with the Department of Languages and Literature.

PhD Required Coursework

The below curriculum must be preceded by the Learning and Cognition MA/MS or a comparable degree approved by the program faculty. Students coming from other degree programs may also be asked to take prerequisites to the courses listed below.

Advanced Methodology & Statistics	12	**Choose 4*:** • EDPS 6769: Hierarchical Linear Modeling (3) • EDPS 7400 Advanced Research Design (3) • EDPS 7420 Qualitative Research in Psychology (4) • STAT 6969 Special Topics in Statistics (3) • STAT 6003 Survey of Statistical Computer Packages (3)
Diversity Learning	3	**Choose 1:** • EDPS 7550: Social Psychology of Human Diversity (3) • ECS 6600: Introduction to Critical and Cultural Studies in Education (3) • ECS 7858: STEM Education and Society (3) • CTLE 6200 Equitable Teaching in Higher Education (3 credits)
Specialty Topics in Learning and Cognition	12	**Choose 4*:** • EDPS 7520: Psychology of Reading (3) • EDPS 7854: Knowing and Learning in STEM (3) • EDPS 6440: Human Computer Interaction (3) • EDPS 6560: Multimedia Learning (3) • EDPS 7415: Human Memory (3) • EDPS 7880: Advanced Seminar on Theory and Methods of Psychophysiology
Applied Skills & Development	3	**Choose 1:** • EDPS 7790: Practicum in College/University Teaching (1-3) • EDPS 7960: Special Topics Seminar (Grant Writing Seminar) (3) • CTLE 6800 Practicum in Teaching in Higher Education (3 credits) • CTLE 6000 Teaching in Higher Education (3 credits) • CTLE 6510 Cyber Pedagogy (3 credits)
Learning Sciences Seminar	4	• EDPS 7440 (1) – repeat for at least 4 semesters
Dissertation Research	14	• Course # specific to your dissertation advisor • Note: You must be registered for a minimum of 3 dissertation credits in the semester that you propose your dissertation and in the semester you defend your dissertation.

Note: A program of study within this framework must be approved by each student's supervisory committee; any variation from the above curriculum must be approved in advance by the program director or dissertation advisor. Prior graduate coursework from other institutions will be evaluated as to whether it satisfies requirements. Students entering the PhD program with a Master's Degree from another institution may be required to take some MS coursework en route to the PhD.

Sample PhD course sequence for student entering with Learning and Cognition Program MS/MA or equivalent MS/MA from an alternate institution/department*

Year 1 – fall	Year 1 -- spring
1 course Special Topics (3 credits)	1 course Special Topics (3 credits)
1 course Advanced methodology (3 credits)	1 course Advanced methodology (3 credits)
EDPS 7440 (1 credit)	EDPS 7440 (1 credit)
1 course Diversity Learning (3 credits)	1 course Applied Skills (3 credits)
Year 2 – fall	Year 2 -- spring
1 course Special Topics (3 credits)	1 course Special Topics (3 credits)
1 course Advanced methodology (3 credits)	1 course Advanced methodology (3 credits)
EDPS 7440 (1 credit)	EDPS 7440 (1 credit)
Form supervisory committee and work on comprehensive project #1	work on comprehensive project #2
Year 3 -- fall	Year 3 -- spring
EDPS 7970	EDPS 7970
work on comprehensive project #3	
File forms for program of study and application for admission to candidacy	

*Although this is a sample program of study, individual student needs should be addressed in regular meetings with the student's advisor.

Statistics Certificate Option

Learning and Cognition PhD students have the option of pursuing the   Statistics Certificate concurrently with their PhD. Note that many of the courses overlap with the PhD requirements and can count toward both the PhD program of study as well as the Statistics Certificate program of study.

Application information for the Statistics Certificate can be found here: https://ed-psych.utah.edu/statistics-certificate/index.php

STATISTICS CERTIFICATE COURSE REQUIREMENTS (15 credits)

Departmental Statistics Courses

ED PS 7020: Quantitative Methods II (6 credits; prerequisite ED PS 7010)

Plus one of the following:

ED PS 7300: Psychometric Theory (3 credits) (offered every fall)

ED PS 7400: Advanced Research Design (3 credits) (offered every spring)

ED PS 6769/STAT 6769: Introduction to Hierarchical Linear Modeling (3 credits) – Summer 2022

Statistics Electives

Two of the following:

PSY 6550: Structural Modeling (3 credits)

PSY 6551: Ad Structural Equation Modeling (3 credits)

PSY 6556: Analysis of Temporal Data (3-4 credits)

PSY 6558: Multilevel Modeling (1-3 credits)

STAT 6003: Survey of Statistical Packages (3 credits)

STAT 6147: Foundations of Applied Data Analytics & Visualization (3 credits) – pending due to changes

STAT 6572: Nonparametric Statistics (3 credits)

STAT 6969: Special Topics in Statistics (3 credits)

Graduate Certificate in Teaching in Higher Education

The [Martha Bradley Evans Center for Teaching Excellence](#) will offer a 15-credit graduate certificate in Teaching in Higher Education starting Fall 2024. Graduate students have the option of pursuing this certificate concurrent with their PhD. Note that many of the courses overlap with the PhD requirements and can count toward both the PhD program of study as well as the Teaching in Higher Education certificate program of study.

More information about the certificate program can be found here: https://cte.utah.edu/graduate-students/teaching-higher-ed-cert.php

TEACHING IN HIGHER EDUCATION CERTIFICATE REQUIREMENTS (15 credits)

Required Courses offered by the Center for Teaching Excellence: (12 credits)

CTLE 6000: Teaching in Higher Education (3)

CTLE 6510: Cyber-Pedagogy (3)

CTLE 6200: Equitable Teaching in Higher Education (3)

CTLE 6800: Practicum in Teaching (3)

Approved Elective (3 credits) – to be approved by CTE certificate advisor; content should relate to teaching in higher education and/or teaching within the student's specific discipline. Applicable Learning and Cognition courses that would meet this requirement include:

EDPS 6035: Instructional Assessments: Design, Implementation, and Analysis (3 credits) (offered every fall)

EDPS 6/7451: Foundations of Learning (3 credits) (offered every fall)

Non-Thesis Master's Project

Students who have been accepted to the Learning and Cognition PhD program, and have earned a master's degree in an unrelated area will be required to complete a non-thesis master's project before embarking on the dissertation. The project should be designed and completed under the supervision of the student's faculty advisor. The purpose of this project is to ensure that students who have not completed a thesis have suitable research skills and experience to complete the dissertation.

The following process for a master's project will be followed for students who enter the PhD program with a master's degree that is not thesis-based or a thesis-based degree in an unrelated field. The master's project should consist of an empirical study, similar to what would be required for a master's thesis. The only difference is that the project is not submitted to the Graduate School.

1. Form a 3-person committee. The department's Academic Program Specialist keeps paperwork on this committee.

2. Write a proposal under your advisor's supervision, giving the other faculty on the committee at least 2 weeks prior to the proposal meeting to read your proposal.

3. Defend the proposal to your committee in a colloquium.

4. Conduct the study

5. Write up the final document under your advisor's supervision, again giving faculty on the committee at least 2 weeks prior to the defense meeting to read your document

6. Defend the final document in front of your committee. The Department's Academic Program Specialist keeps paperwork on completion of this project in your student file.

Supervisory Committee

Students pursuing a Master's Degree must form a supervisory committee of three faculty members. Two members must be tenure track faculty in the Department of Educational Psychology, and one member must be a member of the Learning and Cognition Program.

Students pursuing a PhD must form a supervisory committee of five members. Three members must be tenure track faculty in the Department of Educational Psychology, one of whom must be a member of the Learning and Cognition Program, and one member must be from outside the Department of Educational Psychology. Committee membership must conform to the University of Utah's Graduate School regulations as described in the University General Catalogue.

The supervisory committee form for either the Master's or PhD should, ideally, be submitted during the beginning of the second year of their program. The form is submitted by through JoLynn Yates. Committee members must be contacted prior to the form being submitted, and they must agree to serve on the supervisory committee.

PhD Comprehensive Projects

In lieu of a standard written/oral exam, Learning and Cognition students are required to complete at least three papers or written descriptions of projects that consist of research other than the thesis or dissertation. These projects will be designed to contribute to the student's preparation for postdoctoral work. Examples of acceptable papers include theoretical or methodological papers, integrative literature reviews, meta-analysis, journal articles, research projects, or grant proposals. Examples of acceptable projects include program evaluations, database development or programming, development of instructional materials, or simulation experiments. The papers or project descriptions may not be used as the dissertation proposal.

The following process will be followed for approval of the three comprehensive projects required for the Learning and Cognition PhD. Note that these projects are flexible, in that they are developed for each student in line with his/her research program and career goals.

1. After completion of MS, set up dissertation committee

2. Send description of 3 different comprehensive projects (no more than 2-3 pages each) to committee. Note these are not to include the dissertation project.

3. Each committee member gets pass/fail vote on proposals. 3/5 votes necessary to proceed

4. Students complete projects and provide documentation of project completion to all committee members. This may vary depending on what project is (copy of manuscripts submitted to journals, demonstrations of working programs, etc.)

5. Students submit documentation of completed projects to all supervisory committee members. 3/5 pass votes needed to pass this requirement

6. These projects must be completed and passed by the supervisory committee one semester prior to defending the dissertation.

Student-Advisor Research Mentoring Process

Completion of a master's thesis and PhD dissertation is done under the supervision of a faculty member. Key to this process is a strong mentoring relationship between the student and their faculty advisor. Students are encouraged to meet with their faculty mentor at the beginning of each academic year and collaboratively discuss and complete the *Student-Mentor Research Collaboration Agreement*. Additionally, if needed, students and their faculty mentor should also meet at the end of the academic year to assess and reflect on the process.

Learning & Cognition Program: Student-Mentor Research Collaboration Agreement

Student _____ Semester and Year _____
Mentor _____

The purpose of this agreement is to document mutual expectations concerning our research collaboration.

1. Time Frame and Time Commitment
What is the duration of the collaboration covered by this agreement and the time commitment expected of the student and mentor? Under what conditions might this agreement be renewed?

2. Compensation
What kind of compensation, if any, is offered to the student? This might include a graduate research position, course credit, stipend, etc. Has the mentor agreed to support the student in applying for further funding opportunities?

3. Preferred Modes and Style of Communication
How do the student and mentor prefer to communicate (e.g., email, phone, text), and with what frequency? What are the preferred forms of address, and what degree of formality in language is preferred? Who will the student be interacting with or reporting to on a day-to-day basis?

4. Meetings
How often will the student and mentor meet, and who is responsible for setting the agenda?

5. Performance Evaluation and Outcome Assessment
What is expected of the student in terms of specific work products or outcomes? How will the student's development as a professional be evaluated? How will this evaluation be communicated to the student, and with what frequency? In other words, how will the student and mentor know whether or not the mentoring relationship has been successful?

6. Mentor Conflict of Interest
If the student is to work on a project related to any research in which the mentor has a financial conflict of interest as determined by the University of Utah Conflict of Interest Office and Committee, the mentor will disclose the conflict of interest to the student prior to start of the project. Visit research.utah.edu/integrity/.

7. Certifications/Training
Are any certifications required before the student can participate in the research? What is the plan for securing any required certifications? These might include training in lab safety, responsible conduct of research, human subjects protections, HIPAA certification, etc.

8. Rules and Procedures
Where can the student learn about rules and procedures associated with the research? What should the student do in case of an emergency associated with the research? What is considered an emergency in the context of the research? What should the student do if they make a mistake?

9. Citizenship
What are the expectations of the student with respect to attendance at research meetings, colloquia, and other events? Are there specific lab or research group expectations?

10. Authorship
Should the research in which the student is involved be published (or otherwise disseminated), how will credit for the work be determined? Are there any restrictions on the release of information that should guide the student's communication about the research (e.g., in the case of patents or other sensitive information)?

11. Mentor Commitments
In all cases, the mentor commits to:
   a. Provide the student with hands-on experience in research;
   b. Support the students in developing skills for independent research
   c. Support and guide the student through programmatic milestones (e.g. comprehensive exam)
   d. Support the student's well-being and development personally and academically;
   e. Endeavor to be as clear as possible about expectations;
   f. Be honest and straightforward with the student about their work;
   g. Openly receive feedback from the student concerning the quality of the research experience; and
   h. Be available to the student as an academic mentor.

To the extent that the student is interested, and as appropriate, the mentor will:
   h. Help them secure resources to enhance and continue their research (e.g., grants, etc.);
   i. Provide advice to the student concerning next steps (employment, etc.); and
   j. Support the student's efforts to earn awards and other recognition for their research efforts.

At the end of the time frame agreed on above, the student and mentor will review this document together, and will evaluate the success of the mentoring relationship.

I (above-named student), agree to the above. _____, _____
                                                                Signature   Date

I (above-named mentor), agree to the above. _____, _____
                                                                Signature   Date

This document is based on the University of Utah, Office of Undergraduate Research Student-Mentor Research Collaboration Agreement.

Student Evaluation Policy

Students in the Learning and Cognition Program are evaluated on the basis of their coursework, yearly program evaluations, and time limit within the program. All three factors are used to determine whether a student is in good standing in the program.

1. <u>Coursework</u>: Graduate students in the Learning Sciences Program are expected to remain in "good standing." Students must maintain a 3.00 grade point average (i.e., B) in required coursework to remain in good standing.

2. <u>Yearly Evaluations</u>: Graduate students in the Learning and Cognition Program also receive a yearly report on their progress (the Annual Student Progress and Evaluation Form). This evaluation, conducted by the Learning and Cognition area faculty states whether a student's overall progress in the Learning and Cognition area is "satisfactory" or "unsatisfactory." To remain in good standing, a graduate student must receive a rating of "satisfactory" on the "overall progress in the program" part of the review.

3. <u>Program Time Limits</u>: Students are expected to complete their graduate programs in a timely manner. Exceeding the program timelines may, at the discretion of the Learning and Cognition Program Committee, result in the termination of the graduate student from the Program, the Educational Psychology Department, and the University of Utah. The Learning and Cognition Program has established the following time limits for graduate degrees:

   a) *Time Limit for the MS/MA Degree*: Students must complete all requirements for the MS/MA degree within four years of matriculation.

   b) *Time Limit for the PhD Degree*:

      i) Students matriculating with a bachelor's degree must complete all requirements for the PhD (including work on the MS/MA degree) within seven years of matriculation.

      ii) Students matriculating with a non-research thesis master's degree (e.g., the MEd or possibly other masters degrees) must complete all requirements for the PhD (including work on the MS/MA degree or equivalent non-degree research projects) within seven years of matriculation.

      iii) Students matriculating with a research thesis master's degree related to Learning and Cognition (e.g., the MS or possibly the MA degrees) must complete all requirements for the PhD (including work on the MS/MA degree) within five years of matriculation.

Student Termination Policy

If a graduate student drops below the required grade point average, receives a rating of "unsatisfactory" on overall progress in the program, or exceeds his/her time limits in the program, the student will be placed on probation for a period of one year. If, at the end of the one year period, the student has corrected the area for which they were put on probation (i.e., raised their grade point average above 3.00, or received a "satisfactory" rating for overall progress in the program on the following year Annual Student Progress and Evaluation Form), they will be returned to good standing. If they have failed to correct the problem, they may, at the discretion of the Program Committee, be terminated from the Program, the Educational Psychology Department, and the University of Utah.

Student Appeal Process

In some cases, students may experience extenuating circumstances that ultimately lead to a poor evaluation, or they may disagree with the outcome of yearly program evaluations or student grades. In these cases, the following procedures have been identified to guide the students in the process of appealing such decisions.

1. In many cases, but particularly in the case of students who are experiencing difficulty in the program or who have received an unsatisfactory evaluation, the student will meet with her/his chair to follow up and make plans for remediation.
2. If the student disagrees with the evaluation of the faculty, s/he can, in consultation with her/his advisor and/or the Program Director, discuss the disagreement in order to provide clarification or request a review of the faculty's decision. Because of the timing of evaluations at the end of the academic year, the faculty may not be able to meet until the beginning of the following semester; at that time, the faculty will meet promptly to consider the student's concerns.
3. If the student feels the faculty's assessment is arbitrary or capricious, or if the student feels that their disagreement with the faculty has not been resolved, the student may pursue the disagreement using more formal means. The student can, within 20 business days of receiving the faculty's decision, submit a written appeal to the Learning and Cognition Program Director. The Director then has 10 business days to respond in writing to the student's appeal.
4. If the Director fails to respond, or if the Director is unable to resolve the student's concern, the student may appeal to the Chair of the Department or the Dean of the College (or her/his designee). The student can appeal the academic action in writing within 40 business days of an unsatisfactory decision by the Director of the Learning and Cognition Program. The Chair or Dean then has 15 business days to respond in writing.
5. If the Chair or Dean fails to respond, or if the student disagrees with the decision, or if the Program disagrees with the decision, a formal appeal may be submitted to the Academic Appeals Committee of the College of Education within 15 days after the Chair's/Dean's response deadline. Detailed information about the Academic Appeals Committee, along with specific steps to follow in an appeal, is contained in the

University of Utah Student Code (see https://regulations.utah.edu/academics/6-400.php).

The Learning and Cognition faculty are committed to student progress and success in the Program. Students are strongly urged to maintain contact with their advisor/ chair throughout the Program. If unforeseen circumstances prevent your timely and successful progression through the Program, please consult as early as possible with your advisor and/or the Program Director to explore possible solutions. Students may request one-year extensions of time limits for exceptional circumstances. The faculty will review each request on an individual basis, considering such factors as whether the student is continuing to make acceptable progress, the student's success in other areas of the Program besides the one in question, and the student's demonstration of a responsible and coherent plan to remedy the identified problem.

Forms and Deadlines

Students are responsible for submitting the necessary paperwork to complete their degree, as well as completing the necessary curriculum.

MASTER'S DEGREE

Graduation requirements for the Master's Degree can be found on the Graduate School website:
https://gradschool.utah.edu/navigating-grad-school/degree-requirements/masters.php

DOCTORAL DEGREE

Graduation requirements for the Doctoral Degree can be found at:
https://gradschool.utah.edu/navigating-grad-school/degree-requirements/phd.php

Additional information, forms, and deadlines are provided on the department website maintained for current students:
http://ed-psych.utah.edu/sac/index.php

For assistance with the academic forms and requirements, please consult with Department staff - (SAEC 3220 or 801-581-7148).

THESIS/DISSERTATION DEADLINES
https://gradschool.utah.edu/thesis/calendar.php

Funding Opportunities

More information can be found on: https://gradschool.utah.edu/graduate-financial-resources/ or https://education.utah.edu/students/scholarship-guide.php

Graduate Research Fellowship

For full-time graduate students who are conducting research or creative projects and who are pursuing the terminal graduate degree in their departments. All qualifying examinations must be successfully passed prior to the beginning of the academic year of the award; non-renewable**.** *Award will qualify the student for the university's tuition benefit program, provided all other tuition benefit program criteria are met (including term limits). 12-15 awards given annually. Due: **mid-December**. **(but due within department by early November)**

Steffensen Cannon Scholarship

For graduate and undergraduate students in the Colleges of Education and Humanities as well as for direct descendants of Ellen Christina Steffensen Cannon. Also for secondary education (particular in mathematics and science) and early childhood education students who will be in the teacher certification program in the Graduate School of Education by the beginning of the academic year of the award; award includes tuition for graduate students only; renewable one year. 12-15 awards given annually. Due: **early January.**

- *Note, this award is typically given after student have completed 1-2 years of graduate work*

University Teaching Assistantships

For full-time graduate teaching assistants (first-year graduate students are not eligible). Departments may use the University Teaching Assistants in a variety of ways to enhance undergraduate teaching and graduate student development. *Award will qualify the student for the university's tuition benefit program, provided all other tuition benefit program criteria are met (including term limits). 12-15 awards given annually. Due: **mid-December (but due within department by early November)**

Emerging Diversity Scholars Fellowship

For promising underrepresented graduate students who have successfully completed their first-year of full-time graduate studies at the University of Utah and whose engagement in the academy will contribute to diversity in higher education: Due: **mid-March (but due within department by March 1)**

Additional Funding Opportunities within the Department
These positions are usually assigned in the spring semester for the following year. If you are interested, talk to your advisor and the program director.

Teaching a course:
EDPS 2030 – Research and Inquiry in Education
EDPS 2110 – Learning, Literacy, and Development
EDPS 2140 – Technology in Classrooms
EDPS 2950 – Undergraduate Research Experience

Statistics Laboratory TA: 10 hours per week (1 position) and 20 hours per week (1 position)
Note: Must have completed ED PS 7020; position is for full academic year.

IDET TA: 10 hours per week support for undergraduate and graduate educational technology courses

Department Technology Support: 10 hours per week support for courses broadcast to St. George Graduate center

Grant-Funded opportunities: Several faculty in the program and department routinely hire graduate students to contribute to research-funded projects. Amount of funding varies with project.

General Student Information

Educational Psychology Department Student Advisory Committee (SAC)
http://ed-psych.utah.edu/sac/

Graduate School
https://gradschool.utah.edu/

Academic Calendar
http://registrar.utah.edu/academic-calendars/index.php

Tuition and Fees
http://fbs.admin.utah.edu/income/tuition/

Student Health and Wellness
Student Health Center https://studenthealth.utah.edu/
Insurance: https://studenthealth.utah.edu/insurance/student-health-insurance-plan.php
Student Wellness Center: https://wellness.utah.edu/
University Counseling Center: https://counselingcenter.utah.edu/

International students
https://isss.utah.edu

Career Services
https://careers.utah.edu

University resources to help parents with childcare
https://childcare.utah.edu

Center for Disability Services
https://disability.utah.edu/

Up-to-Date COVID-19 Information
https://coronavirus.utah.edu/

Code of Student Rights and Responsibilities ("Student Code")
http://www.regulations.utah.edu/academics/6-400.html

College of Education Technical Support:
The College of Education Office of Technology Services (OTSS) is your technical support staff for College of Education computing and printing. They can be reached by phone at 585-3450 or by email at ed-help@lists.utah.edu. They are located in rooms 1228 & 1240 in the Beverley Taylor Sorenson Arts and Education Complex. OTSS maintains computing/printing spaces in SAEC and also can help with remote access to software (https://education.utah.edu/about/tech-support/labs.php). Laptops are available for checkout subject to availability (contact OTSS directly). OTSS also provides a variety of technology and multimedia equipment for short-term

checkout to help with class assignments, development of study materials, and other academic projects. OTSS maintains an online list of equipment available for student checkout online: https://education.utah.edu/about/tech-support/multimedia.php