Teaching and Learning, PhD

Programs designed to lead to professional licensure are subject to federal regulations regarding informational disclosures. Please see Professional Licensure Disclosures by Program for further information.

Learning Outcomes

Students will:

- demonstrate understanding and application of research methods and methodological knowledge;
- demonstrate understanding of and ability to analyze theoretical concepts and research in their field of study;
- express ideas effectively in written and spoken communication;
- connect research to practice and practical questions in education; and
- plan, conduct, report on, and disseminate original research.

PhD Required Research Courses

Students admitted to doctoral programs must complete the program's research requirements.

Required Core Courses

All PhD students in the Department of Teaching and Learning must complete one or both of the following core courses, depending upon program requirements.

Course #	Title	Hours
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

Cognate Areas

The following list of cognates offered by program areas in the department is not exhaustive; students may select cognates from this list or they may customize their own cognate areas in consultation with their advisors.

Multilingual Education

Course #	Title	Hours
This course:		
EDTL:6483	Multilingual Education and Applied Linguistics	3
Two of these, chosen in consultation with faculty:		
EDTL:6400	Fundamentals of Second Language Assessment	3
EDTL:6403	Language Policy and Planning	3
EDTL:6409	Cultural Curriculum	3
EDTL:6480	Graduate Seminar in Multilingual Education	3
EDTL:6484	Bi/Multilingual Literacies	3
EDTL:6497	Principles of Course Design for Second Language Instruction	3

Gifted Education

Administrative Strand

Course #	Title	Hours
Two of these, chosen in consultation with faculty:		
EPLS:4110	Administration and Policy in Gifted Education	2
EPLS:4111	Evaluation of Gifted Programs	1
EPLS:4113	Staff Development for Gifted Programs	1

Programming Strand

Course #	Title	Hours
Both of these:		
EDTL:4066	Curriculum and Programming for Advanced Learners	3
EDTL:4199	Program Models in Gifted Education	3

Psychology Strand

Course #	Title	Hours
Two of these, chosen in consultation with faculty:		
CSED:4120	Psychology of Giftedness	3
CSED:4121	Identification of Students for Advanced Programming	3
CSED:4137	Introduction to Educating Advanced Learners	3
CSED:5226	Assessment of Students for Advanced Programming	3
CSED:5237	Seminar in Gifted Education	3

Language, Literacy, and Social Studies Education

Course #	Title	Hours
Both of these:		
EDTL:7008	Seminar: Research and Current Issues (topic chosen in consultation with advisor)	arr.
EDTL:7015	PhD Seminar in Language, Literacy, and Culture (topic chosen in consultation with advisor)	arr.

Mathematics Education

Course #	Title	Hours
Both of these:		
EDTL:6536	Teaching of Geometry	2-3
EDTL:7535	Seminar: Research in Mathematics Education	arr.

Science Education

Course #	Title	Hours
Both of these:		
EDTL:6757	Learning in the Science Classroom	2-3
EDTL:6759	Advanced Pedagogy	3

Special Education

Course #	Title	Hours
All of these:		
EDTL:7945	Current Issues and Trends in Learning Disabilities	3
EDTL:7948	Contemporary Research in Behavioral Disorders	3
EDTL:7953	Seminar: Single Subject Design Research	3

Language, Literacy, and Social Studies Education

The Doctor of Philosophy in teaching and learning with a language, literacy, and social studies education subprogram requires a minimum of 73 s.h. of graduate credit. All students must maintain a Graduate College program grade-point average (GPA) of at least 3.00. Students may be able to use some coursework completed for their master's degree toward the PhD; most courses for the PhD should be numbered 5000 or above.

This interdisciplinary program brings together scholarly traditions and contemporary theory in multilingual education and applied linguistics, literacy and cultural studies, and social studies education. The program provides students with the necessary content area knowledge and research skills for independent research, program administration, and varied leadership positions in language, literacy, and social studies education. In consultation with their advisor, students create a program of study that fits their interests and professional aspirations.

The PhD in teaching and learning with a language, literacy, and social studies education subprogram requires the following coursework.

Required Courses

Course #	Title	Hours
This course:		
EDTL:6015	PhD Seminar: Literacy, Culture, and Language Education	3
One of these:		
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

Disciplinary and Interdisciplinary Foundations

Students choose a disciplinary area in literacy education, multilingual education, or social studies education for their three foundational courses. They then select one or both of the other areas for their interdisciplinary foundation coursework.

Course #	Title	Hours
All of these:		
At least three courses in a chosen area of concentration		9
At least two courses in other areas of concentration		6

Research Methods

Course #	Title	Hours
Both of these:		
EDTL:7070	Qualitative Research Methods in Teaching and Learning	3
EDTL:7405	Research Methods in Literacy, Culture, and Language Education	3
One of these:		
PSQF:6241	Quantitative Policy Analysis for Practitioners	3
PSQF:6243	Intermediate Statistical Methods (for students who utilize quantitative methods in their dissertation)	3
And:		
Two additional advanced research methods courses in quantitative, qualitative, or mixed methods in consultation with their advisor		6

Electives

Students choose 27 s.h. of elective coursework in consultation with their advisor. Courses may be taken in any department and can be partially or completely unified as a cognate area of study.

Comprehensive Examination

Upon completion of their coursework, students take their comprehensive exam. This is an opportunity for students to show a comprehensive understanding of the scholarship in the field. Successful completion of the exam identifies candidates who are ready for dissertation work.

Dissertation

After students pass their comprehensive exam, they consult with their advisor to choose a dissertation committee with at least four faculty members who approve the dissertation proposal. After a successful defense of their dissertation, students conduct dissertation research in the following course.

Course #	Title	Hours
EDTL:7493	PhD Thesis	10

Admission

Applicants must meet the admission requirements of the Graduate College. They must have earned a bachelor's degree with an undergraduate GPA of at least 3.00 on a 4.00 scale and earned a master's degree or completed significant graduate coursework. It is recommended that applicants have at least two years of teaching experience in a related field within or outside of the United States.

Mathematics Education

The Doctor of Philosophy in teaching and learning with a mathematics education subprogram requires a minimum of 80–90 s.h. of graduate credit. Students must have a Graduate College program grade-point average of at least 3.00 or higher in all graduate work in mathematics, all University of Iowa graduate work in mathematics, all graduate work, and all University of Iowa graduate work.

The program prepares supervisors, teacher education personnel, community college personnel, and researchers in mathematics education. It is administered by the College of Education. Students must update graduate coursework completed more than 10 years before admission to the program.

The PhD program in teaching and learning with a mathematics education subprogram requires the following coursework.

Required Courses

Students must complete a minimum of 15 s.h. in qualitative and quantitative coursework, with at least 9 s.h. from one area (qualitative or quantitative) and at least 6 s.h. from the other. Students select from courses listed under PhD Research Requirements on the college's Graduate Student Resources website.

Core Course

Course #	Title	Hours
One of these:		
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

In addition, students must complete an approved cognate area; see the "Additional Requirements" section.

Students must complete a minimum of 24 s.h. of graduate work in the departments of Computer Science, Mathematics, and Statistics and Actuarial Science, as approved by their advisor. Electives are encouraged in the pure mathematics and applied mathematics sequences.

Students who completed their mathematics requirement at another institution must complete at least 6 s.h. of additional coursework in mathematics at the University of Iowa, chosen with advisor approval. They must also complete at least six courses in mathematics education.

Additional Requirements

Students concentrate in two additional comprehensive examination areas in either the mathematical sciences or education. A minimum of three courses usually are required for a comprehensive examination area, but candidates should consult with faculty members in the areas selected to determine which courses they should take in order to adequately prepare for the examinations.

Students must complete a total of at least 36 s.h. in College of Education courses; this includes the coursework listed above. They must complete an approved cognate area; a partial list of potential cognate areas is available from the mathematics education program.

Comprehensive Examination

Students take three written comprehensive examinations, one in mathematics education and two in other fields of education or mathematics; an oral examination follows the written examinations.

Dissertation

Candidates complete a dissertation on a research problem in mathematics education. A prospectus of the proposed research must be presented to the dissertation committee before candidates undertake the study. Upon completion of the dissertation, candidates defend the dissertation in an oral examination. Students must earn dissertation credit in the following course.

Course #	Title	Hours
EDTL:7493	PhD Thesis	10

Admission

Applicants must meet the admission requirements of the Graduate College. They must have an undergraduate major in mathematics or the equivalent, a current teaching license/certificate, and at least two years of teaching experience are strongly preferred. A faculty review committee makes admission decisions.

Science Education

The Doctor of Philosophy in teaching and learning with a science education subprogram requires a minimum of 85 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average (GPA) of at least 3.00.

The program is designed for individuals who aspire to positions as college and university science educators; major supervisors in national, state, and local systems; teachers in small liberal arts colleges; instructors of general education science courses at major universities; research directors in science education; and professionals in medical and/or allied health education.

The PhD in teaching and learning with a science education subprogram requires the following coursework.

Required Courses

Students in science education complete a minimum of 15 s.h. in qualitative and quantitative coursework, with at least 9 s.h. from one area (qualitative or quantitative) and at least 6 s.h. from the other. Students select from courses listed under PhD Research Requirements on the college's Graduate Student Resources website. Course selections must be consistent with other requirements for the degree.

Core Courses

All doctoral students in science education complete one or both of the following core courses. Students may not substitute other courses for these.

Course #	Title	Hours
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

In addition, all doctoral students in the Department of Teaching and Learning complete an approved cognate area;

see "Cognate Areas" under PhD Required Research Courses [p. 1] in this section of the catalog.

Science Education

Course #	Title	Hours
All of these (15 s.h.):		
EDTL:6757	Learning in the Science Classroom	3
EDTL:6758	Writing in the Science Classroom	3
EDTL:6759	Advanced Pedagogy	3
Graduate-level science education courses chosen in consultation with advisor		6

Education

Course #	Title	Hours
Three courses chosen in consultation with advisor		9

Research in Science Education

Course #	Title	Hours
Both of these (21 s.h.):		
EDTL:7750	Seminar: Science Education (taken three times for 1 s.h. each)	3
EDTL:7755	Independent Study in Science Education Research (taken six times for 3 s.h. each)	18

Science Area

Students complete a family of courses (total of 12 s.h.) in a major science area.

Comprehensive Examination

Students take three written comprehensive examinations, one in science education and two in other fields of education or science; an oral examination follows the written examinations.

Dissertation

Course #	Title	Hours
This course:		
EDTL:7493	PhD Thesis	10

Admission

Applicants must meet the admission requirements of the Graduate College. They should have completed a bachelor's degree in a science area (or combination of science areas), in science education, or in elementary education with a science emphasis; and have a cumulative GPA of at least 3.00 on undergraduate and graduate work.

Special Education

The Doctor of Philosophy in teaching and learning with a special education subprogram requires a minimum of 90 s.h. of graduate credit. Students must maintain a Graduate College program grade-point average (GPA) of at least 3.00.

The program prepares students for teaching and research positions in higher education, and for curriculum, supervisory, and research positions in state and local education agencies. The program permits students to study and practice extensively in their special education interest area and in an interest area outside of special education.

The PhD curriculum includes an emphasis on research skills, all facets of special education, an approved cognate area, and at least one specialization area.

Quantitative Research Requirements

Course #	Title	Hours
Both of these:		
PSQF:4143	Introduction to Statistical Methods	3
PSQF:6243	Intermediate Statistical Methods	3
Two of these:		
EPLS:6206	Research Process and Design	3
PSQF:6220	Quantitative Educational Research Methodologies	3
PSQF:6244	Correlation and Regression	4
PSQF:6246	Design of Experiments	3
PSQF:6247	Nonparametric Statistical Methods	3
PSQF:6249	Factor Analysis and Structural Equation Models	3
PSQF:6252	Introduction to Multivariate Statistical Methods	3

Qualitative Research Requirements

Course #	Title	Hours
This course:		
EDTL:7953	Seminar: Single Subject Design Research	3
One of these:		
EDTL:7410	Mixed Methods Research	3
CSED:7338	Essentials of Qualitative Inquiry	3
EPLS:7373	Qualitative Research Design and Methods	3
PSQF:7331	Qualitative Educational Research Methods	arr.

Core Course

Course #	Title	Hours
One of these:		
EDTL:7004	Schooling in the United States	3
EDTL:7033	Seminar on Teacher Education	3

Proseminar Courses

Course #	Title	Hours
Both of these:		
EDTL:7943	Proseminar: Issues, Trends, and Research in Special Education	3

EDTL:7944	Proseminar: Issues, Trends, and Research in Special Education II	3

Seminar Requirements

Course #	Title	Hours
Both of these:		
EDTL:7945	Current Issues and Trends in Learning Disabilities	3
EDTL:7948	Contemporary Research in Behavioral Disorders	3

Practicum Requirement

Course #	Title	Hours
This course:		
EDTL:7380	Practicum in College Teaching (taken twice for 3 s.h. each)	6

Cognate

Students complete a cognate or specialty area for at least 9 s.h. in consultation with their advisor.

Competencies

Students work with their advisor to ensure they meet the core competencies of the degree by: completing the University of Iowa Institutional Review Board training; submitting a paper for publication; completing two conference presentations; and completing two service activities.

Comprehensive Examination

The comprehensive exam comprises the submission of a major area paper during the student's third year of enrollment in the program.

Dissertation

Students complete a doctoral dissertation for at least 10 s.h.

Course #	Title	Hours
This course:		
EDTL:7493	PhD Thesis	10

Admission

Applicants must meet the admission requirements of the Graduate College. They must have a master's degree or equivalent in special education; those without an MA thesis must have completed an equivalent project. Applicants should have a graduate GPA of at least 3.50. Applicants should have at least one year of full-time teaching experience with exceptional children; several years are preferred.

Final admission decisions are made by the special education graduate admissions committee.

Academic Plans

Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Teaching and Learning, PhD

Special Education Subprogram

Course	Title	Hours
Academic Career		
Any Semester		
90 s.h. must be graduate level coursework; graduate transfer credits allowed upon approval. More information is included in the General Catalog and on department website. [a]		
Graduate College program GPA of at least 3.00 is required. [b]		
	Hours	**0**
First Year		
Any Semester		
Exam: Qualifying Exam I		
	Hours	**0**
Fall		
EDTL:7033 or EDTL:7004	Seminar on Teacher Education or Schooling in the United States	3
EDTL:7953	Seminar: Single Subject Design Research	3
PSQF:4143	Introduction to Statistical Methods	3
Cognate/Specialty course [c]		3
Quantitative Research course [d]		3
	Hours	**15**
Spring		
EDTL:7943	Proseminar: Issues, Trends, and Research in Special Education [e]	3
PSQF:6243	Intermediate Statistical Methods	3
Cognate/Specialty course [c]		3
Qualitative Research course [f]		3
Quantitative Research course [d]		3
	Hours	**15**
Second Year		
Any Semester		
Exam: Qualifying Exam II		
	Hours	**0**
Fall		
EDTL:7944	Proseminar: Issues, Trends, and Research in Special Education II [e]	3
EDTL:7945	Current Issues and Trends in Learning Disabilities [g]	3
Cognate/Specialty course [c]		3
Elective course [h]		3
Elective course [h]		3
	Hours	**15**
Spring		
EDTL:7948	Contemporary Research in Behavioral Disorders [g]	3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		3
	Hours	**15**

Third Year
Any Semester

		Hours
Exam: Doctoral Comprehensive Exam [i]		
Dissertation Proposal [j]		
Hours		**0**

Fall

		Hours
EDTL:7380	Practicum in College Teaching [k]	3
Elective course [h]		3
Elective course [h]		3
Elective course [h]		2
Hours		**11**

Spring

		Hours
EDTL:7380	Practicum in College Teaching [k]	3
Elective course [h]		3
Elective course [h]		3
Hours		**9**

Fourth Year
Fall

		Hours
EDTL:7493	PhD Thesis	5
Hours		**5**

Spring

		Hours
EDTL:7493	PhD Thesis	5
Exam: Doctoral Final Exam [l]		
Hours		**5**
Total Hours		**90**

a Students must complete specific requirements in the University of Iowa Graduate College after program admission. Refer to the Graduate College website and the Manual of Rules and Regulations for more information.

b Graduate College program GPA is comprised of all courses that are approved degree requirements. If a student takes more than the minimum required number of semester hours to complete the degree, but all courses taken are eligible to count toward the degree, those courses will be included in the Graduate College program GPA.

c In consultation with faculty advisor, complete 9 s.h. in a cognate or specialty area.

d Choose from EPLS:6206, PSQF:6220, PSQF:6244, PSQF:6246, PSQF:6247, PSQF:6249, PSQF:6252.

e When offered, enroll in EDTL:7943 and EDTL:7944; otherwise take PSQF:7201 and EALL:4130 or advisor approved coursework.

f Choose from CSED:7338, EDTL:7410, EPLS:7373, PSQF:7331.

g When offered, enroll in EDTL:7945 and EDTL:7948; otherwise work with faculty advisor to determine appropriate coursework.

h In consultation with faculty advisor, select appropriate graduate electives for remaining degree requirements.

i Major area paper.

j Typically completed by the end of third year.

k Take EDTL:7380 twice for 3 s.h. each, once for teaching course and once for supervising field placement students.

l Dissertation defense.