

Doctor of Philosophy (Ph.D.) in Curriculum and Instruction (C&I)

with emphasis in Science Education

For a student who has completed a master's degree, a D.V.M. or M.D. at a U.S. institution, a minimum of 64 hours is required on the degree plan for the degree of Doctor of Philosophy. For a student who has completed a baccalaureate degree but not a master's degree or a U.S. D.V.M. or M.D., a minimum of 96 hours is required on the degree plan for the degree of Doctor of Philosophy. (Courses in "**bold**" are required.)

Core Courses		
Course Number	Course Title	Credit Hours
EDCI 601	Disciplinary Knowledge and Research in C&I*	3
Additionally, choose 3 of the following 5 courses:		
EDCI 646	Instruction Theory	3
EDCI 647	Curriculum Theory	3
EDCI 658	History of Education	3
EDCI 662	Philosophical Theories of Education	3
EDCI 606	Cognition, Culture and Literacy	
Total		12

*EDCI 601 must be taken during the first semester.

Students and their advisors will choose one of the following four research sequences that is most appropriate for their needs. Any substitutions to these sequences will need to be approved by the student's chair and dissertation/thesis committee, as well as the Department of Teaching, Learning and Culture.

Contact:

Dr. Julie Singleton
 Faculty Advisor
 444 Harrington Tower
 Email: jsingle@tamu.edu

Kerri Smith
 Assistant Director
 104A Heaton Hall
 Phone: (979) 862-8032
 E-mail: krsmith@tamu.edu

Sarah Oakley
 Academic Advisor II
 104C Heaton Hall
 Phone: (979) 862-8032
 E-mail: tlacgant@tamu.edu

Research Core

Requires 15 hours

Students and their advisors will choose one of the following three research sequences that is most appropriate for their needs. Any substitutions to these sequences will need to be approved by the student's chair and dissertation/thesis committee.

Note: Adjustments may be made to the various research sequences due to course availability. Students should meet with their major advisors to make the necessary changes. To fulfill the research requirement, the remaining 6 hours should be selected from approved advanced courses (see ARM) and in conjunction with their advisor.

Learn more: <http://education.tamu.edu/advanced-research-methods-certificate>

Research Core Courses Course Number	Sequence A Course Title	Credit Hours
EDCI 605 OR EHRD 655	Qualitative Research Methods in C&I Qualitative Research	3
EPSY 640	Experimental Design in Education I	3
EPSY 641	Experimental Design in Education II	3
Total		9

Research Core Courses Course Number	Sequence B Course Title	Credit Hours
EDCI 605 OR EHRD 655	Qualitative Research Methods in C&I Qualitative Research	3
STAT 651	Statistics in Research I	3
STAT 652	Statistics in Research II	3
Total		9

Research Core Courses Course Number	Sequence C Course Title	Credit Hours
EDCI 686	Research Methods in EDCI I	3
EDCI 687	Research Methods in EDCI II	3
EDCI 688	Advanced Research Methods in EDCI	3
Total		9

Research Core Courses Course Number	Sequence D Course Title	Credit Hours
EPSY 640 OR STAT 651	Experimental Design in Education I Statistics in Research I	3
EDCI 605 OR EHRD 655	Qualitative Research Methods in C&I Qualitative Research	3
EDCI 661	Mixed Methods Research in Education* *Or any advanced qualitative research course approved by your Chair	3
Total		9

The remaining two research courses (6 hours) should come from this list of "advanced" research courses. Student, their advisors, and dissertation/thesis committee will choose the most appropriate "advanced" courses. The "advanced" research courses may be chosen from the following list:

Qualitative Research Courses	
Course Number	Course Title
EDAD 623	Advanced Fieldwork Methods
EHRD 651	Models of Epistemology and Inquiry in Human Resource Development
EHRD 656	Narrative Analysis
EHRD 657	Life History Research

Mixed Methods Courses	
Course Number	Course Title
EDAD 620	Educational Program Evaluation
EHRD 618	Evaluation Models in Human Resource Development
EHRD 641	Evaluation of Adult Teaching and Learning
EDCI 628	Analyzing and Reporting Field-Based Research
EDCI 689	Standards and Models of Curriculum Evaluation
EDCI 661	Mixed-Methods Research in Education

Quantitative Research Courses

Course Number	Course Title
STAT 653	Statistics in Research III
EPSY 622	Measurement and Evaluation in Education
EPSY 630	Single-Case Research
EPSY 636	Techniques of Research
EPSY 642	Meta-Analysis of Behavioral Research
EPSY 643	Applied Multivariate Research
EPSY 651	Structural Equation Modeling
EPSY 689	Hierarchical Linear Modeling/Multi-level Modeling
EDCI 627	Teaching and Learning Data Analysis and Uncertainty Concepts

Dissertation Research

Course Number	Course Title	Credit Hours
	Elective	3
	Elective	3
	Elective	3
	Elective	3
	Elective	3
	Elective	3
	Elective	3
	Elective	3
	Total	24

* Students will consult with their advisory committee to determine what courses can be used as electives on their degree plan.

Dissertation Research		
Course Number	Course Title	Credit Hours
EDAD 691	Research	13
		Total 13

The student's advisory committee will consist of no fewer than four members of the graduate faculty representative of the students' several fields of study and research, where the chair or co-chair must be from the student's department, and at least one or more of the members must be from a department other than the student's major department.

Students will refer to the Office of Graduate Studies (ogs.tamu.edu) for information on:

- Residence requirements
- Time Limit
- Transfer of Credit Hours
- 99-hour cap on doctoral degrees

For more information on the Ph.D. degree in C&I with emphasis in Science Education please visit our website.