

**Graduate Program in Education  
Ph.D. Degree Requirements  
Revised: 2008 and 2014  
Graduate Council Approval: August 14, 2014**

**1) Admissions Requirements**

**a) School of Education Requirements:**

- Minimum 3.0 GPA
- Satisfactory Graduate Record Examination scores (last 5 years)
- Satisfactory TOEFL score (International applicants only)
- Three letters of recommendation
- Official transcripts from all institutions attended
- Statement of Purpose and Personal History
- Writing sample
- Completion of Graduate Studies Admissions application

**b) Prerequisites and Deficiencies**

- There are no prerequisites for this program, therefore no deficiencies.

**2) Dissertation Plan**

**Plan B.** Specifies a three member (minimum) dissertation committee, an optional final oral examination, and an optional exit seminar.

**C.Phil. – The Candidate in Philosophy**

This program does not offer the C.Phil.

**3) Course Requirements – Core and Electives (72 units)**

**Core Courses (40 units)**

**a) Foundational Methodology Coursework (8 units)**

Show competence in basic statistics by:

- (a) Taking EDU 114
- (b) Showing transcript evidence of comparable coursework

EDU 200 (or equivalent), Educational Research, 4 units

Required if no MA degree in Education; Recommended for all others

**b) Professional Induction (4 Units)**

EDU 291, Proseminar in Education, 4 units

**c) Methodological Core Coursework (8 units)**

EDU 201, Survey of Qualitative Methods, 4 units

EDU 204A, Quantitative Methods in Educational Research: Analysis of Correlation and Design, 4 units

**d) Advanced Research Methods Coursework: Total Units - 8 units**

Minimum 2 courses from Quantitative or Qualitative traditions, or one from each tradition.

**e) Education Core (12 units)**

**(1 course required in each area)**

- i. Learning and Teaching
- ii. Schooling and Society
- iii. Assessment and Measurement

**f) Elective Courses (32 units)**

**Program Emphasis Areas Requirements:**

All students are required to complete at least 32 units of emphasis area course work. Each student and his or her faculty adviser proceed within the framework of one of the emphases listed below to select 32 units of emphasis area course work and complete other degree requirements. Alternatively, students with interests across two or more of these emphasis areas may work with their faculty advisers to select an appropriate combination of course work that draws from more than one emphasis. At least 16 units or four courses of Emphasis Area Program units should be fulfilled with actual coursework. However, with advisor approval, some units may be fulfilled through Directed Reading or Directed Research units.

**i. *Program Emphasis Area: Language, Literacy & Culture (LLC)***

In the LLC emphasis area, faculty and students examine the roles of language, literacy, and culture in the learning of diverse populations. Students are prepared to study language and literacy development as complex constructs influenced by schools and relationships with communities these schools serve. LLC members share a commitment to generating knowledge that encourages equitable opportunities for all learners, in and out of school.

Required Courses

Students with the LLC emphasis are required to take 32 LLC units. Of these 32 units, a core of the following must be satisfied:

- 1 course in reading or response to literature
- 1 course in writing
- 1 course in language diversity

**ii. Program Emphasis Area: Learning and Mind Sciences**

The Learning and Mind Sciences emphasis area engages in innovative and interdisciplinary research and training on the foundations of human learning across three strands: Cognition, Design, and Social Context; Assessment, Measurement, and Psychometrics; and Neurodevelopment and Educational Research.

**Required Courses**

32 units are required and are selected in close consultation with the faculty advising team.

**iii. Program Emphasis Area: Mathematics Education**

Mathematics Education focuses on trends, theories, and reform in mathematics curriculum, as well as current issues and directions in research. Issues include design and evaluation of effective mathematics instruction, the process of learning mathematics, culture and practice in the mathematics classroom, teachers' perspectives and development, or the impact of technology on the teaching of mathematics.

**Required Courses**

32 units are required in mathematics and mathematics education, including the following three core mathematics education courses:

- 255 - Curriculum Development and Evaluation in Mathematics (4)
- 256- Research in Mathematics Education (4)
- 294 - Special Topics in Science, Agriculture & Mathematics Education (8 units)

Suggested additional courses to meet the 32-unit emphasis

requirement include:

- 257 - Computer Technology in Mathematics Education (4)
- 210 - The Psychology of School Learning (4)
- 211- Social & Situative Perspectives on Learning & Cognition (4)
- 292 - Experiential Learning (4)

Up to 12 units of appropriate mathematics coursework may be counted toward the 32-unit emphasis area requirement, and a maximum of 8 of these units in mathematics may be from graduate work (e.g., the MA or MAT) completed prior to enrollment in the Ph.D. Program in Education. Transcripts should be submitted to the emphasis area faculty for assessment. Students may choose mathematics courses from upper division and graduate offerings in consultation with their faculty advisor. Particularly encouraged are courses in the field of mathematics most closely related to the student's research plans. Relevant upper division courses include the following:

#### **Mathematics Closest to Dissertation Research**

- Arithmetic: Math 115A, 115B, 115C
- Geometry: Math 114, 116, 141
- Algebra: Math 108, 150A, 150B, 167
- Probability: Math 131, 132A, 132B
- Calculus: Math 108, 127A, 127B
- Statistics: Statistics 108, 130A, 130B

#### **Electives**

Students in the Mathematics Education emphasis are expected to take a minimum of 6 units (2 courses) of additional coursework in areas relevant to their research interests. These courses, determined in consultation with the faculty adviser, are intended to add breadth and/or depth to the student's program of study.

#### ***iv. Program Emphasis Area: Science and Agricultural Education***

The Science & Agricultural Education emphasis area looks at trends, theories, and reform in curriculum, as well as current issues and directions in research in these content areas. Issues include the design and evaluation of effective instruction, the process of learning science and/or agricultural content, classroom culture and practice, teachers' perspectives and development, or the impact of technology on the teaching and learning.

## **Required Courses**

Science and agriculture emphasis area education students complete 32 units of intensive course work in education and content domains. The core of the curriculum comprises 16 units of required course work including at least two courses selected from this list and EDU 294 Science/Agriculture/Math (SAM) Seminar:

- 260 - The Modern History of Science Education (4)
- 262 - Research Topics in Science Education (4)
- 264 - Science Literacy and Science Education Reform (4)
- 292 - Experiential Learning (4)
- 292 - History of Agriculture Education (4)

## **Disciplinary Training**

To ensure that students have appropriate subject matter expertise, 16 units of upper division undergraduate or graduate level courses in a particular area of science, agriculture or environmental science is required. Selection of these courses is based on each student's particular interests in consultation with the faculty advisor. For example, a student interested in physics education would take 16 units (4 courses) of physics; a student interested in the teaching of biology would take 16 units (4 courses) in biology. Students who possess a Master's degree in a science or agriculture domain are not required to take these additional courses, and with advisor approval they may count up to 16 units of appropriate previous graduate-level coursework toward fulfilling the 32 unit emphasis area requirement.

## **Electives**

Students in this emphasis area are strongly suggested to take a minimum of 8 units (2 courses) of additional course work in areas relevant to their research interests. These courses, determined in consultation with the faculty adviser, are intended to add breadth and/or depth to the student's program of study. They may be courses offered within or outside the School of Education.

## ***v. Program Emphasis Area: School Organization & Education Policy***

The School Organization and Educational Policy (SOEP) emphasis focuses on the concepts and research tools for education evaluation and policymaking across a variety of settings.

### **Required Courses**

SOEP students complete 32 units of coursework in the SOEP emphasis area. As part of these 32 units, SOEP student are required to take the following three core SOEP courses:

220 - Concepts & Methods of Policy Analysis (4)

223 – Education & Social Policy (4)

227\* - Program Evaluation & Education (4)

\*Any course marked with an asterisk is a proposed course with a tentative course number. Proposed courses are offered as sections of EDU 292, Special Topics in Education, until they have completed the approval process.

## **4) Special Requirements**

There are no special requirements for this program.

## **5) Committees**

### **a) Admissions Committee**

Once an application is complete, it is submitted to the GGE faculty for review and ranking via the online GARD system. Final decisions are made by the Admissions Committee. The Admissions Committee consists of at least five faculty members representing the diversity of the graduate group. Based on a review of the entire application, a recommendation is made to accept or decline an applicant's request for admission. That recommendation is forwarded to the Dean of Graduate Studies for final approval of admission. Notification of admission decisions will be sent by Graduate Studies. See GGE website for current deadlines:

<http://education.ucdavis.edu/programs/PhDadmissions.html>

### **b) Course Guidance/Advising Committee**

The GGE does not have a formal course guidance/advising committee. The student is expected to solicit general advising and course guidance from their primary and secondary advisors, as well as the Staff Advisor.

### **c) Preliminary Exam Committee**

The preliminary exam committee is made up of the student's primary and secondary advisor and one faculty member who will serve as the preliminary exam advisor for all of the second year students in a given year. This advising role will rotate among the faculty on a yearly basis.

#### **d) Qualifying Examination Committee**

The Graduate Advisor, in consultation with the student and his/her Major Professor, nominates five faculty members to serve on the Examination Committee. These nominations are submitted to the Office of Graduate Studies for formal appointment in accordance with Graduate Council Policy. The chair of the QE committee is expected to be different from the chair of the dissertation committee. The QE committee conducts the exam and submits results to the Office of Graduate Studies.

#### **e) Dissertation Reading Committee**

The Dissertation Committee is a three-member committee selected by the student, in consultation with the Major Professor, nominated by the Graduate Advisor and appointed by Graduate Studies. The majority of the committee should be from the program. The composition of the dissertation committee is entered on the Advancement to Candidacy Form. The role of the Dissertation Committee is to advise the doctoral student of the research topic and methods, and then to review the final completed dissertation for acceptance. The Committee Chairperson (the Major Professor) should determine the desires of the individual members regarding assistance with the research and dissertation review at the time the dissertation committee is constituted. Students are expected to meet with the Chair of their dissertation committee regularly. Dissertation committee members are expected to read and comment on a dissertation within four weeks from its submission. This time limit policy does not apply to summer periods for faculty holding nine-month appointments. The student and faculty will coordinate a timeline for the student to present the dissertation to the dissertation committee. This timeline must allow all dissertation committee members enough time to fulfill their responsibilities within the four-week deadline.

### **6) Advising Structure and Mentoring**

The **Primary and Secondary Advisors** are the faculty members who supervise the student's research and dissertation; the Primary Advisory typically services as the Chair of the Dissertation Committee. The **Graduate Advisor**, who is appointed by the Dean of Graduate Studies, is a resource for information on academic requirements, policies and procedures, and

registration information. The **Graduate Program Staff** assists students with identifying a major professor, identifying appointments, and general university policies.

The Advising Form located on the web:

<http://education.ucdavis.edu/post/phd-advising-forms> is a record used to document student progress. The form allows space to list the foundational methods coursework, the methodology course requirements, and the core foundation requirements. Additional space is provided on the form for recording the emphasis program. A record is also kept of the preliminary review, the dissertation proposal, the qualifying examination, and the dissertation. This form will be a key advising document between student and Primary Advisor. The Advising Form should be submitted to the GGE Staff Advisor by the end of the first year and updated on a yearly bases until Advancement to Candidacy. Full time student must maintain 12 units each quarter. These units can include required and variable unit courses. These forms are used during the annual student review and are part of the evidence the faculty advisors use to determine whether the student is making satisfactory progress. In addition, this form will be used by the Staff Advisor to verify course requirement completion prior to the student applying to take the Qualifying Examination.

The **Mentoring Guidelines** can be found in the graduate student handbook or on the web at:

<http://education.ucdavis.edu/pod/mentoring-guidelines>

## 7) **Advancement to Candidacy**

Before advancing to candidacy for a doctoral degree, a student must have satisfied all requirements set by the graduate program, must have maintained a minimum GPA of 3.0 in all course work undertaken (except those courses graded S or U), and must have passed a Qualifying Examination before a committee appointed to administer that examination. Normally, students advance by the end of the 9<sup>th</sup> quarter. The student must file the appropriate paperwork with the Office of Graduate Studies and pay the candidacy fee in order to be officially promoted to Ph.D Candidacy. Refer to the Graduate Council Website for additional details regarding the Doctoral Qualifying Examination at:

<http://gradstudies.ucdavis.edu/gradcouncil/policiesall.html>

## 8) **Preliminary Exam, Qualifying Examination and Dissertation Requirements**

### **a) Preliminary Exam**

The preliminary exam consists of a single paper prepared during the 4<sup>th</sup> and 5<sup>th</sup> quarters of study and turned in for evaluation during the 6<sup>th</sup> quarter of study. The preliminary exam is, in part, intended to support and assess students' progress in academic writing and is meant for them to demonstrate competency with theoretical foundations in the chosen area of study. The due date for the preliminary exam papers will be established and announced at the beginning of the Fall quarter each year and will apply to all students in a given year. The due date will fall sometime in the middle of April. The paper topic will be developed in consultation with the student's major professor and approved by the student's preliminary exam committee by the end of the 4<sup>th</sup> quarter of doctoral study. The student will then prepare a paper of 5,000 to 10,000 words in length (excluding references). The preliminary exam committees will evaluate papers and return scores within one month of the due date. Students will receive a Pass, No Pass, or Fail on the preliminary exam. Those receiving a No Pass may revise their paper and resubmit it no later than the first day of the 7<sup>th</sup> quarter of study. Students receiving a Fail on the Preliminary Exam will be recommended for disqualification to the Dean of Graduate Studies. Failure to submit the preliminary exam paper on the due date may be grounds for recommendation for disqualification from the program.

The preliminary exam is intended to be a cohort process, and thus the normal timeline for the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> quarters of study falls within the second academic year of the program. For students who have had to go on leave or have other extenuating circumstances, the timeline may be adjusted with approval from a Graduate Advisor.

### **b) Qualifying Exam**

Once students have passed the Written Preliminary Examination, they begin preparation for the Qualifying Examination, which is designed to assess their knowledge of a specialized area of theory and research. The primary purpose of the QE is to validate that the student is academically qualified to conceptualize a research topic, undertake scholarly research, and successfully produce the dissertation required for a doctoral degree. In addition, the QE provides an opportunity for the committee to provide important guidance to the student regarding the chosen research topic. The qualifying exam will be based on written materials prepared in advance of the actual examination and submitted to the committee a minimum of 14 days prior to the examination date. The writing that will serve as the basis for the exam will consist of the student's research prospectus and written

description and analysis of a dataset related to the student's research plan. This data piece could be woven into the research prospectus or could be a stand-alone paper.

### **c) Dissertation**

Filing of a Ph.D dissertation with the Office of Graduate Studies is normally the last requirement satisfied by the candidate. The deadlines for completing this requirement are listed each quarter in the campus General Catalog (available online). A candidate must be a registered student or in Filing Fee status at the time of filing a dissertation, with the exception of the summer period between the end of the Spring Quarter and the beginning of Fall Quarter. The Ph.D Dissertation will be prepared, submitted and filed according to regulation instituted by the Office of Graduate Studies. The Dissertation Committee Chair must verify satisfaction of this requirement.

When the dissertation research has been completed and the result written in potentially final form, the dissertation will be submitted to the student's dissertation committee within the time constraints imposed by the Office of Graduate Studies. Currently normative time to degree is five years following admission to the doctoral program. The student may be on "filing fee" status for one quarter with the possibility of extension for exceptional cause.

As soon as possible, but no later than 4 weeks after receipt of the dissertation, the chair of the dissertation committee may schedule a meeting at which the student will discuss the dissertation with members of his or her committee. At this meeting, the committee may accept or reject the dissertation, or may require specific modifications. Following acceptance of the dissertation, as an optional experience, the student may make a formal presentation of his or her work to the university community at a colloquium or seminar.

## **9) Normative Time to Degree**

### **TIME TO DEGREE POLICY**

By UC Davis Graduate Council - June 21, 2000

Students will have 4 calendar years after the date they pass their qualifying examination to submit their dissertation. At this time, if a student has not submitted his/her dissertation to Graduate Studies, this student will receive a notice from Graduate Studies that s/he is placed on probation, and has 1 year from that date to submit the dissertation. If not submitted within 1 year, the student will no longer be allowed to enroll the following quarter and will be dismissed.

The clock is "set" from the date of passage of the Qualifying Examination, not the time the student officially advances to candidacy through submission of the form to Graduate Studies. This prevents a student from delaying submission of the form to Graduate Studies when they have in de facto "advanced".

After dismissal, a student will have to be readmitted to the program through the programs' admission process to receive his/her Ph.D. If programs are willing to readmit the student, the student may be required to retake the qualifying examination to demonstrate that his/her knowledge of the research area is current.

Major professors, academic advisers, or students may petition Graduate Council for an exception to this policy for cause. In addition, a dissertation committee may petition for an exception to retaking the qualifying examination. Students, faculty and programs have the right to appeal the denial of the exceptions to policy for cause.

This is a generous timeline given that normative time for programs on campus is typically 5-6 years. Thus, if a student passes his/her QE during the 3rd year (before the 9th quarter), this requirement gives the student an additional 4 years to complete dissertation work and remain in good academic standing. This would represent submission of the dissertation in the seventh year of registration. In addition, a student has a probationary year beyond that for completion. This represents 8 years total, which is well beyond the normative time for programs on this campus.

## **10) Typical Time Line and Sequence of Events**

Unlike undergraduate degree programs, and some master degree programs, there is no specific length of time associated with earning a Ph.D. Across disciplines and campuses; the average amount of time to earn the degree is between 4 and 5 years, although individual time varies widely.

The Education program was planned to span at least 3 years and was designed for students who already have undertaken graduate work and already demonstrated competence and interest in educational research. The length of the program, however, is based on the student's progress in mastering subject matter, preparing for examinations, preparing research proposals, and conducting original research. The nature of these activities differs and makes for considerable time variability among students in the same program.

### **a) Year-by-Year Guideline.**

A general guideline for planning your graduate program is described below.

### **First year**

During the first year, students normally complete any prerequisites that are deemed necessary by the admissions committee, the graduate adviser, or faculty adviser. Foundational methodology coursework are noted on the Advising Form.

In addition, students complete the 1 quarter Proseminar that is required of all students working towards the education Ph.D.:

- EDU 291 Proseminar in Education (4) Fall

Students take the following methodology core courses:

- EDU 201 Qualitative Methods (4) Winter
- EDU 204A Quantitative Methods in Educational Research: Analysis of Correlation and Design (4) Spring

Students fill out their schedule with emphasis area coursework.

### **Second year**

During the second year of the program, students complete any remaining background course work or required course work. The rest of the second year is devoted to completing courses in the area of emphasis. At least 32 units (approximately 8 courses) are required for the area of emphasis; these are selected with the assistance of the faculty adviser and in accordance with requirements listed above for each emphasis area. Students should also complete at least two advanced methodology courses. Students will also complete the Preliminary Examination by the end of the second year.

### **Second/third year**

During the second and third year, students prepare for and complete the qualifying examination. The student and his or her qualifying examination committee will design a qualifying examination to assess readiness to complete the dissertation.

### **Fourth year plus**

Once the Advancement of Candidacy form is approved, the student will continue work towards the dissertation. Ph.D. dissertations must satisfy

the standards and format of the Graduate Studies Office and those of an appropriate publications manual, for example, that of the American Psychological Association (latest edition). In general, the style and format of the journals by the AERA should be used in written work in this program.

When the committee approves the dissertation, the student has the option to make a public presentation of the dissertation results. The details of place and time for dissertation presentations will be publicly posted, and any member of the University community may attend and raise questions at this exit seminar. This presentation is not an examination, but an opportunity for students to inform members of the graduate group and others about their research. Participation in the process of research dissemination is viewed as a scholarly activity.

### **b) Expected Timeline for Completing Program Milestones**

Students entering the Ph.D. program in Education are expected to make timely progress toward completing their doctoral studies. We have defined timely progress in terms of several program milestones. The outline below specifies the time that students should take to complete each milestone. Students are encouraged to complete program milestones sooner than indicated, but not at the expense of producing quality work.

Students who do not complete program milestones within a normal time period are considered by the GGE faculty to be at risk of not completing the program successfully and will be counseled by their advisor to help them get back on track as quickly as possible.

### **c) Program Milestone Years to Completion**

**MILESTONE #1:** Course requirements completed, Preliminary Exam passed, & Qualifying Exam committee formed two to three years from beginning of program

**MILESTONE #2:** Completion of both of the following two separate steps:

- Qualifying exam completed
- Advancement to Candidacy form submitted and approved. One year past Milestone #1, not to exceed four years from beginning of program

**MILESTONE #3:** Dissertation completed within four years past Milestone #2, not to exceed a total of seven years in the program.

We expect students to complete each milestone within the specified period of time. We recognize, however, that students come into the program with varied backgrounds and interest, and these will be reflected in somewhat different timelines through and between program milestones. We also recognize that exceptional circumstances can make it difficult for students to complete a program milestone within the normal period of time.

Progress in completing program milestones is an important criterion in shaping faculty evaluations of student work, including evaluations for fellowship and travel support, teaching assistantships, and research assistantships. GGE faculty also look for indications of each student's course completion record, writing and reading ability, and writing and research productivity.

Faculty members also view the Ph.D. program as a point of entry for students into the educational research community. Evidence that students are taking some initiative in joining this community - through collegial engagement with faculty, other doctoral students, and educational researchers in other venues (conferences, associations, journals, etc.) - is regarded very favorably by faculty members, not only on its own merits but as a resource to students in developing professional skills and dispositions. Evidence that students are not engaged in collegial relations of this sort is viewed by faculty members as a liability for students who hope to complete the program successfully and in a timely manner.

## **11) Sources of Funding**

UC Davis offers various types of graduate student support for students in Good Academic standing. Both need-based and merit-based funds are available. Eligibility criteria may vary and graduate student academic employment, such as teaching or research assistantships, are administered by individual departments.

## **12) PELP, In Absentia and Filing Fee Status**

Information about PELP (Planned Educational Leave), In Absentia (reduced fees when researching out of state), and Filing Fee status can be found in the graduate Student Guide:

[www.gradstudies.ucdavis.edu/publications](http://www.gradstudies.ucdavis.edu/publications)