

## **Engineering and Applied Science Ph.D. (EASPhD)**

### **Rules and Regulations**

Following are the rules and regulations pertinent to the EASPhD degree. The document is useful to candidates and their faculty advisors in making sure that the requirements are met for completion of the Ph.D. degree. Each doctoral candidate should read and understand this document. He/she should sign the document signifying he/she understands the document and has a curriculum plan complying with it.

#### **Host Department**

Applicants to the EASPhD program apply to and enter the program through one of four departments, called the host department, of the College: CE, CSE, EE, or ME. The student chooses the host department whose course offerings match with his/her desired primary area of concentration. The BIOE department participates as a secondary concentration choice. As this Ph.D. program is multidisciplinary, a student must take courses from both a primary and secondary concentration.

#### **Selection of Primary and Secondary areas of Concentration**

For his/her research and study area and with the assistance and approval of his/her advisor, a Ph.D. candidate will select a primary concentration from a number of concentrations offered by each of the four host departments. With the agreement of his/her faculty advisor, the student will also select a secondary concentration outside of the student's home department, which could be the BIOE department. The student's advisor(s) will be instrumental in the selection of a secondary area that supports and compliments the primary area of concentration. At least one of the student's research committee members must be from the department that supports the student's secondary concentration.

#### **Graduate Advisor and Research Committee**

Upon acceptance to the EASPhD program, each student will be assigned a temporary graduate faculty advisor from his/her host department to help the student select courses for the first semester. During the first semester, this advisor will also help the student plan a long-term program of study, which will be submitted to the respective host department for approval. In the first year of graduate studies, each EASPhD candidate must select and have an agreement from a permanent graduate faculty advisor(s) from the ranks of the full-time CEAS faculty to be the student's research advisor or the student will be discontinued from the program. The student will sign an agreement that outlines the rules and regulations pertinent to the Ph.D. degree and the student's curriculum plan as complying with the rules and conditions in this document. The advisor(s) will assist the student with the design of his/her course curriculum, will supervise the student's dissertation, will help the student form a five-member research committee that will approve the student's plan of study and will help mentor the student's research. The research committee must include at least two faculty outside the student's home department, one of whom must be outside of CEAS.

### **Coursework Requirements**

The coursework requirement is 30 units (i.e., 10 courses each of which is 3 units) for all students. Students must take at least five courses in the primary area of concentration in the host department and at least three courses in the secondary area of concentration. The two additional courses may be selected from any area of concentration among those listed in the graduate documents of the CEAS departments or other colleges in the University. Other courses may be recommended by the student's advisor. As already stated above, to maintain the multidisciplinary feature of the program, the three courses in the secondary area of concentration must come from outside the student's host department; i.e., from any of the remaining four departments of the College. For students with more than 15 units of transfer credits, the course distribution will be decided on a case-by-case basis. To register for any of these required courses, the student must first obtain the signed approval of his/her graduate advisor(s).

### **Independent Study Courses**

A student may take one, but no more than one, independent study course from one of the CEAS graduate faculty.

### **Research Requirements**

For the research/dissertation requirement, an additional 30 dissertation units are required with supervision by the student's graduate advisor(s). A student who successfully completes the 30-unit course requirement, but decides to not pursue the 30-unit dissertation requirement, may graduate with a Master's degree in the discipline of his/her primary concentration provided he/she has met the degree requirements of the host department.

### **GPA and Seminar Requirements**

The candidate must maintain a grade point average of 3.0 or higher. In compliance with the Graduate School Rules, the minimum grade required for a unit to count toward the 30 semester hours of coursework is "B minus" (2.7).

The College of Engineering and Applied Science (CEAS) will require that all EASPhD students attend the CEAS seminar series for a minimum of two semesters at 0.5 credit hours per semester, up to one credit hour. The class is a pass/fail and is attendance based. It does not count toward the 30 credit hours required for the degree. Attendance is required at seventy-five percent of the seminars for a passing grade and the submission of a report on at least one seminar per semester is required for a passing grade. Individual departments may require additional semesters of seminar attendance.

### **Transfer Credit**

Requests for transfer of credit will be considered on a case-by-case basis. This includes students possessing a Master's degree. In keeping with the Rules of the Graduate School, doctoral students may transfer in a maximum of 21 credit hours, including graduate courses completed at the University of Colorado. Students possessing a Master's degree, including those that obtained the degree from the University of Colorado, will be required to take a minimum of 9 additional

course credit hours. Additional imposed course credit requirements will be considered on a case-by-case basis. All requests for transfer of credit must be made at the time of application for admission and will be granted solely at the discretion of the Graduate Committee of the pertinent CEAS host department. Furthermore, no coursework completed five or more years prior to the commencement of study in the EASPhD program will be considered for transfer of credit and all transfer students must meet the same requirements for admission as non-transfer students.

**Timing of Coursework**

Each EASPhD candidate will be expected to successfully complete at least fifteen credit hours of coursework during the first year of study. Exceptions to this will be considered on a case-by-case basis, especially for working students. Candidates with more than fifteen granted transfer course credit hours will be expected to complete all required course work the first year of study.

**Preliminary Examination**

By the end of the second year, a candidate will be expected to have selected a dissertation (research) committee (in addition to the advisor(s) selected after the first semester) and taken the Preliminary Examination prepared by the dissertation committee. The Preliminary Examination will consist of a written and an oral part and its dual purpose will be (a) to evaluate the candidate's general academic preparation required for his/her field and (b) to evaluate and possibly modify the candidate's research program. The dissertation committee will include a total of five members: three from the candidate's host department and two from outside the host department. One of the latter two members will be selected outside of CEAS.

**Comprehensive Examination and Doctoral Dissertation Defense**

After successful completion of the Preliminary Examination, students will be required to successfully complete two additional examinations: the Comprehensive Examination and the Doctoral Dissertation Defense Examination. The Comprehensive Examination will be prepared by the candidate's dissertation committee and will be taken by the end of the candidate's third year of doctoral studies. Consisting of written and oral parts, its purpose is to evaluate the candidate's proficiency in his/her primary and secondary areas of concentration. The Doctoral Dissertation Defense is the final examination and is designed to evaluate the originality and quality of the candidate's research. Upon successful completion of the Doctoral Dissertation Defense Examination, the Doctoral Dissertation will be submitted to the Graduate School.

**Degree Conferred**

Upon satisfactory completion of all requirements, the candidate receives the degree "Doctor of Philosophy in Engineering and Applied Science."

I understand the Rules and Regulations, and my faculty advisor and I have devised a curriculum plan complying with them.

\_\_\_\_\_ Date \_\_\_\_\_  
Student

\_\_\_\_\_  
Faculty Advisor

Date \_\_\_\_\_