NEW/CHANGE PROGRAM REQUEST
Graduate Programs

FAU

FLORIDA ATLANTIC UNIVERSITY

Department Computer & Electrical Engineering and Comp. Science

College Engineering and Computer Science

UGPC Approval _____

UFS Approval _____

Banner Posted _____

Catalog _____

Program Name Doctor of Philosophy with Major in Electrical Engineering	☐ **New Program** ☑ **Change Program**	**Effective Date** *(TERM & YEAR)* Summer 2018

Please explain the requested change(s) and offer rationale below or on an attachment

This proposal requests updating the catalog:
- Delete "Electronics Laboratory 1" from the first table, since it is already stated in the sentence right above the table that the students must take this course.
- Add "STA 4821 Stochastic Models for Computer Science" to the list of undergraduate courses for the Electrical Engineering students taking the Qualifying Exam.

Faculty Contact/Email/Phone Dr. Mihaela Cardei / mcardei@fau.edu / 561-297-3459	**Consult and list departments that may be affected by the change(s) and attach documentation**

Approved by		**Date**
Department Chair	*Nurgun Erdol*	2/13/18
College Curriculum Chair	*M Cardei*	2/14/18
College Dean	*[signature]*	2/14/2018
UGPC Chair		
UGC Chair		
Graduate College Dean		
UFS President		
Provost		

Email this form and attachments to UGPC@fau.edu one week before the UGPC meeting so that materials may be viewed on the UGPC website prior to the meeting.

GRADUATE COLLEGE

FEB 2 1 2018

Received

College of Engineering and Computer Science

Computer & Electrical Engineering and Computer Science

Doctor of Philosophy with Major in Electrical Engineering

Admission Requirements
Applicants for admission to doctoral study will be evaluated on an individual basis by the departmental graduate admissions committee. As a rule, the applicant must have:

1. At least a 3.3 (of a possible 4.0 maximum) grade point average in the last 60 credits attempted in the relevant field;

2. A combined score (verbal + quantitative) of at least 300 on the Graduate Record Examination (GRE). GRE scores more than five years old are normally not acceptable. The GRE requirement is waived for any student who has an M.S. degree without thesis from FAU's Department of Computer & Electrical Engineering and Computer Science with a GPA of at least 3.8 and for any student who has an M.S. degree with thesis from FAU's Department of Computer & Electrical Engineering and Computer Science with a GPA of at least 3.7;

3. A master's degree in Engineering or a related discipline awarded by a recognized institution (thesis options are preferred);

4. Two reference forms that document the applicant's research potential, motivation, relative academic achievement and personality;

5. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS).

Applicants are expected to have taken the following prerequisite courses (or equivalents) before pursuing the Ph.D. degree. In some cases, prerequisite requirements may be satisfied after admission to the Ph.D. program. In such a case, proficiency in the prerequisite courses must be shown before the student takes dissertation credits.

Students must take the EEL 3118L Electronics Laboratory 1 course and at least four more courses from the table.

Introduction to Microprocessor Systems	CDA 3331C
Electromagnetic Fields and Waves	EEL 3470
Electronics 2	EEE 4361
Introduction to Digital Signal Processing	EEE 4510
Communications Systems	EEL 4512
Controls Systems 1	EEL 4652
Analysis of Linear Systems	EEL 4656
~~Electronics Laboratory 1~~	~~EEL 3118L~~

Qualifying Exam
The qualifying exam is a written exam intended to assess whether or not a student is ready to conduct research at the doctoral level and is able to publish in international conferences and journals. The exam must be passed for formal admission into the doctoral program. Students seeking the Ph.D. degree are expected to take the exam during the second semester of their doctoral studies, excluding the summer semester.

The exam addresses the student's knowledge of graduate and undergraduate course material and basic mathematical concepts and engineering methods required for research and professional practice at the doctoral level. The exam consists of six problems (one from each course) related to material covered in recent FAU graduate and undergraduate courses. The exam is administered twice a year in the fall and spring semesters. Two, three-hour sessions, morning and afternoon, cover three courses each. The student can bring three, two-sided pages of notes and a simple calculator to each session, but no books, computers or phones. An overall minimum score of 70 percent or better is required to pass. A student failing the written exam may, upon re-application, take it a second time. Normally two failures result in dismissal from the Ph.D. program.

Application for Qualifying Exam

Students fill out and submit an application for the qualifying exam. In filling out the form the student should list six courses, at most four of which may be at the graduate level and at least two of which must be at the undergraduate level, selected from the list below. Students can select at most one graduate course outside the CEECS department with the approval of the advisor. All other courses must have been offered by the CEECS department during the preceding three years, but the student may have taken them anywhere or prepared for them on their own. The student also lists a primary area of research and at least one secondary area.

The application must be approved by the student's advisor and then submitted to the graduate committee. Upon approval, the graduate committee arranges for exam preparation.

Undergraduate courses for Electrical Engineering students

Electromagnetic Fields and Waves	EEL 3470
Electronics 2	EEE 4361
Introduction to Digital Signal Processing	EEE 4510
Stochastic Processes and Random Signals	EEE 4541 or
Stochastic Models for Computer Science	STA 4821
Communications Systems	EEL 4512
Controls Systems 1	EEL 4652
Analysis of Linear Systems	EEL 4656

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