

 FLORIDA ATLANTIC UNIVERSITY	PROGRAM CHANGE REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	Department Computer and Electrical Eng and Comp Sci College Engineering		
Program Name Graduate programs - BS/MS		Effective Date <i>(TERM & YEAR)</i> Spring 2018	
Please explain the requested change(s) and offer rationale below or on an attachment This is a minor clarification to insure students understand that the only classes that can be counted for BS and MS degrees are those 5000 level and above.			
Faculty Contact/Email/Phone Frederick Bloetscher h2o_man@bellsouth.net 239-250-2423		Consult and list departments that may be affected by the change(s) and attach documentation none	
Approved by		Date	
Department Chair <u>Morgan Endel</u>		<u>10/9/2017</u>	
College Curriculum Chair <u>[Signature]</u>		<u>10/10/17</u>	
College Dean <u>[Signature]</u>		<u>10/10/2017</u>	
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.

Computer Science and Computer Engineering

COMBINED PROGRAMS

B.S.C.E. or B.S. to M.S. Degree Programs

The department offers a combined Bachelor of Science in Computer Engineering (B.S.C.E.) to Master of Science (M.S.) program. In the computer science area, it offers a combined Bachelor of Science (B.S.) to Master of Science (M.S.) degree program. The bachelor's degrees and the master's degrees must be in the same area. Students in either combined program may count up to 9 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program includes a minimum of 150 credits.

Deleted: the following criteria are met

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

Deleted: A maximum of 9 graduate credits may then be counted for both the bachelor's and master's programs if the total number of credits exceeds 150

With an approximate duration of five years, these combined programs provide attractive ways for students to continue their graduate work. Students complete the undergraduate program first.

Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transfer Student Manual*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

Admission Requirements

To be eligible for the joint programs, computer science and computer engineering students should:

1. Have a cumulative GPA of 3.25 or better at the end of their junior year; and
2. Formally apply to one of the joint programs, completing the admissions process at least one semester prior to the beginning of the M.S. portion of their program.

Once admitted to the program of their choice, students begin taking graduate courses (5000 level or higher) in their senior year that would apply to both the bachelor's and master's degree programs. Students in the joint programs must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen, including core courses and prerequisites. Those students who complete the M.S. degree program within one year after completing their B.S.C.E. or B.S. degree program will be presented with a certificate of recognition.

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B.S.E.E. to M.S.Cp.E. Degree Program

The department offers a Bachelor of Science in Electrical Engineering/Master of Science in Computer Engineering degree program. Program details are listed in the Electrical Engineering section under Combined Programs.

Electrical Engineering

[Link to Combined Programs](#)

[Link to Master's Program](#)

[Link to Doctoral Program](#)

COMBINED PROGRAMS

B.S.E.E. to M.S. Degree Program

This program enables qualified FAU undergraduate EE students to obtain both their B.S.E.E. and M.S. degrees in approximately five years by allowing up to 9 credits of approved graduate coursework (5000 level or higher) to apply toward both degrees as long as the combined program includes a minimum of 150 credits.

Deleted: the following criteria are met

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

Deleted: A maximum of 9 credits may then be counted for both the bachelor's and master's programs if the total number of credits exceeds 150.

This essentially takes away approximately one semester of coursework and offers an attractive option for enthusiastic students planning for their graduate education. Students who have a cumulative GPA of 3.25 or better after completing 98 credits toward the B.S.E.E. are eligible for admission to the program. Students complete the undergraduate degree first.

Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transfer Student Manual*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

Program Process

1. Eligible students apply to the department for acceptance into the program during the term in which they will complete 96 credits toward their B.S.E.E. degree.
2. Eligible students take the Graduate Record Exam (GRE, verbal and quantitative) during the term in which they will complete 96 credits toward their B.S.E.E. degree.
3. Eligible students normally apply for graduate admission after obtaining a combined score of 1000 or more on the GRE.
4. Eligible students take courses in their senior year that will apply to both their B.S.E.E. and M.S. degrees.
5. Students participating in this program may opt for the thesis or non-thesis option in their M.S. degree.
6. Students planning for the thesis option need a letter of recommendation from their potential thesis advisor.
7. Students must be admitted to the joint B.S.E.E./M.S. program at least one semester prior to the start of their M.S. degree program.

8. Students who are successful in completing their M.S. degree within one year will be presented a certificate of recognition.

Degree Requirements

Students participating in this program must satisfy the degree requirements for a B.S.E.E. and M.S. as outlined in this catalog.

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Bachelor of Science in Electrical Engineering/Master of Science in Computer Engineering

The B.S.E.E./M.S.Cp.E. program is intended for students who wish to take advantage of the broader systems orientation of the B.S.E.E. degree and then specialize in Computer Engineering. Selection of specific technical elective courses in the B.S.E.E. program qualifies the graduates to enter the M.S.Cp.E. program with no deficiencies, provided that the GPA and other computer engineering admission requirements are met. Up to 9 credits of approved graduate coursework (5000 level or higher) can apply toward both degrees as long as the combined program includes a minimum of 150 credits:

Deleted: the following criteria are met

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000-level of higher courses for the master's program.

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Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college university, or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transfer Student Manual*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

Degree Requirements

The following specific technical elective courses should be taken as part of the requirements for a B.S.E.E. degree:

Technical Electives (10 credits required)		
Foundations in Computer Science	COP 3014	3
Foundations in Computer Science Lab	COP 3014L	1
Data Structures and Algorithm Analysis	COP 3530	3
Structured Computer Architecture	CDA 4102	or
CAD-Based Computer Design	CDA 4204	3

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Bioengineering

Bioengineering stands at the intersection of the revolution taking place in advanced medical treatments as a result of applying the principles and practice of the engineering and computer science disciplines to the biological, biomedical and medical sciences. Bioengineering is a broad and emerging field that impacts drug delivery, surgery, diagnosis, prevention and treatment. Students successfully completing the Master of Science in Bioengineering degree program will be prepared for professional careers in businesses related to medical diagnostics, prosthetic devices and neural and other implants; the pharmaceutical and biotechnology industries; and consulting in health-related fields, as well as other positions in industry, commerce, education and government. Students will also be prepared to continue their formal education at the Ph.D. level in a variety of science and engineering disciplines and at the M.D. level in certain cases.

**Combined Bachelor of Science in any major in the College/
Master of Science with Major in Bioengineering**

Bachelor of Science candidates in any College of Engineering and Computer Science program with a cumulative GPA of at least 3.25 at the end of their junior year are eligible to apply to the combined program, which allows students to complete their bachelor's, as well as a master's in Bioengineering, within approximately five years. After application and admittance to the graduate program at the beginning of their senior year, up to 9 credits of approved graduate-level courses (5000 level or higher) may be taken and counted toward both the B.S. and M.S. degrees as long as the combined program includes a minimum of 150 credits:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

Students must retain a cumulative GPA of 3.25 by the time of graduation. Thesis and Non-Thesis options are available. See below for master's program admission and degree requirements.

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