

New Combined Degree

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Catalog

FLORIDA ATLANTIC UNIVERISTY	Program Request				UFS Approval Banner Posted Catalog			
New Combined Deg	gree Prograi	m Request			<u> </u>			
Proposed Program:	roposed Program: BS CE to PhD CE CIP: Effective D				Fall 2022 ate (Term/Year):/ (e.g. Fall/2020)			
Proposed Combined Program Information		Undergraduate		Graduate				
Degree Level (e.g. B.A., B.S., M.A., M.S., etc.)		BS		PhD				
Program Name (e.g. Physics, Engineering, etc.)		Computer Engineering			Computer Engineering			
College		Engineering and Comp. Sci.			Engineering and Computer Science			
Department		Electrical Eng. and Comp. Sci.			Electrical Eng. and Comp. Sci.			
Program Description (prodescription of the prograthesis or non-thesis option)	m, including	This is a combined program with BS in Computer Engineering to PhD in Computer Engineering. Up to 12 graduate credits can be counted both in the bachelor and PhD's degrees. This program does not increase the number of credits in the undergraduate degree.						
		Curriculum Rec	uirements					
GPA Requirements: Departments must establish a minimum undergraduate GPA for students to be admitted to a combined program. Note: Please attach explanation. The minimum undergraduate GPA is 3.5.			List courses to be shared: Up to twelve (12) credit hours of graduate courses (5000 level or above course work) may be shared between the graduate and undergraduate degree for a combined program. Note: Please attach explanation: • Academic justification for shared credits and catalog language • List the undergraduate course that will be replaced by graduate courses.					
Faculty Submitting Request		Name	Signa	Signature		Email	Date	
		Dr. Hanqi Zhuang			zhu	ıang@fau.edu		
Approved by			Date 1/26/2022					
Department Chair:	Digitally signed by Mihaela Cardei Discont/Mhaela Cardei, onFlorida							
College Dean:					2/8/2022			
College Curriculum Chair:					2/8/2022			
UUPC Chair:				_				
Undergraduate Studies Dean: (Note: Forward approved form to UGPC@fau.edu)				-				
UGPC Chair:								
UGC Chair:								
UFS President:								
Provost:								

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

B.S. in Computer Engineering to Ph.D. in Computer Engineering Degree Program

The department of Electrical Engineering and Computer Science offers a combined B.S. in Computer Engineering to Ph.D. in Computer Engineering degree program.

Students may count up to 12 credits of graduate coursework (5000 level or higher) offered by the EECS department toward both their bachelor's and Ph.D.'s degrees. These graduate courses will replace elective and semi-core courses in the bachelor's program. The proposed program does not increase the number of credits in the undergraduate degree.

All the combined programs total a minimum of 195 credits:

- 1. The student has met the minimum 123 credits for the bachelor's degree; and
- 2. The student has taken a minimum of 72 credits in 5000 level or higher courses for the Ph.D.'s program.

This combined program provides an attractive way for students to continue their graduate work. Students complete the undergraduate program first.

Admission Requirements

The GRE requirement is waived for this combined program. To be eligible for the combined program, the bachelor's students should:

- 1. Have a cumulative FAU GPA of 3.5 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.5 must be maintained until the completion of the bachelor's degree.
- 2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the Ph.D. portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing.

Degree Requirements

To be eligible for the combined bachelor to Ph.D. program, students must fulfill the following requirements:

- 1. Completion of the requirements for the B.S. in Computer Engineering program and other requirements stipulated by the University and College
- 2. Completion of all requirements for the Ph.D. in Computer Engineering degree program.

Sample four-year program of study, B.S. Computer Engineering

123 credits

Course is Required (R), Elective (E), or Semi-Core (SC)

Year One (32 credits)

Fall Semester (15 cr)

College Writing I (ENC 1101) (3) (R)

Calculus with Analytic Geometry I (MAC 2311) (4) (R)

General Physics I for Engineers with Lab (PHY 2048/L) (5) (R)

Fundamentals of Engineering (EGN 1002) (3) (R)

Spring Semester (17 cr)

College Writing II (ENC 1102) (3) (R)

Calculus with Analytic Geometry II (MAC 2312) (4) (R)

Art Appreciation (ARH 2000) (3) (E)

General Physics II with Lab (PHY 2049/L) (4) (R)

Programming I (COP 2220) (3) (R)

Year Two (31 credits)

Fall Semester (16 cr)

US History to 1877 (AMH 2010) (3) (E)

Calculus with Analytic Geometry III (MAC 2313) (4) (R)

Macroeconomic Principles (ECO 2013) (3) (E)

Intro to Music Education (MUE 2040) (3) (E)

Fundamentals of Computing (COT 2000) (3) (R)

Spring Semester (15 cr)

World Geography (GEA 2000) (3) (E)

Interpretation of Fiction (LIT 2010) (3) (E)

Circuits I (EEL 3111) (3) (R)

Computer Logic Design (CDA 3201C) (3)(R)

Programming II (COP 3014) (3) (R)

Year Three (30 credits)

Fall Semester (15 cr)

Design of Digital Systems and Lab (CDA 4240C) (3) (R)

Electronics I (EEE 3300) (3 (R)

Electronics I Lab (EEL 3118L) (3) (R)

Engineering Mathematics 1 (MAP 3305) (3) (R)

Data Structure and Algorithm Analysis (COP 3530) (3) (R)

Spring Semester (15 cr)

Stochastic Models for Computer Science (STA 4821) (3) (R)

Signals and Digital Filter Design (EEE 3502) (3) (R)

Intro to Data Science and Analysis (CAP 4773) (3) (R)

Computer Architecture (CDA 4102) (EGN 4410C) (3) (R) Principles of Software Engineering (CEN 4010) (3) (R)

Year Four (30 credits)

Fall Semester (15 cr)

Engineering Design I (EGN 4410C) (3) (R) Intro to Embedded System Design (CDA 4630) (3)(R) Computer Operating Systems (COP 4610) (3) (SC)

Graduate Course 1 (3) (SC) Graduate Course 2 (3) (E)

Spring Semester (15 cr)

Engineering Design II (EGN 4411C) (3) (R) Computer Networks (CNT 4007) (3) (R) Intro to VLSI Design (CDA 4210) (3) (SC)

Graduate Course 3 (3) (E) Graduate Course 4 (3) (E)