



## New Combined Degree Program Request

UUPC Approval 2-28-22  
 UGPC Approval \_\_\_\_\_  
 UFS Approval \_\_\_\_\_  
 Banner Posted \_\_\_\_\_  
 Catalog \_\_\_\_\_

### New Combined Degree Program Request

Proposed Program: BS CS to PhD CS CIP: \_\_\_\_\_ Effective Date (Term/Year): Fall 2022 / \_\_\_\_\_ (e.g. Fall/2020)

| Proposed Combined Program Information                                                                   | Undergraduate                                                                                                                                                                                                                                         | Graduate                         |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Degree Level<br>(e.g. B.A., B.S., M.A., M.S., etc.)                                                     | BS                                                                                                                                                                                                                                                    | PhD                              |
| Program Name<br>(e.g. Physics, Engineering, etc.)                                                       | Computer Science                                                                                                                                                                                                                                      | Computer Science                 |
| College                                                                                                 | Engineering and Comp. Sci.                                                                                                                                                                                                                            | Engineering and Computer Science |
| Department                                                                                              | Electrical Eng. and Comp. Sci.                                                                                                                                                                                                                        | Electrical Eng. and Comp. Sci.   |
| Program Description (provide a brief description of the program, including thesis or non-thesis option) | This is a combined program with BS in Computer Science to PhD in Computer Science. 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 Requirements

**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             | Signature | Email          | Date |
|----------------------------|------------------|-----------|----------------|------|
|                            | Dr. Hanqi Zhuang |           | zhuang@fau.edu |      |

### Approved by

Department Chair: \_\_\_\_\_

College Dean: McCard Digitally signed by McCard  
DN: cn=McCard, ou=Faculty,  
ou=Florida Atlantic University,  
c=US, email=mccard@fau.edu, c=US,  
date=2022.02.28 10:07:22 -0500

College Curriculum Chair: etang

UUPC Chair: Thlyn Williams

Undergraduate Studies Dean: Daniel Meeroff  
*(Note: Forward approved form to [UGPC@fau.edu](mailto:UGPC@fau.edu))*

UGPC Chair: \_\_\_\_\_

UGC Chair: \_\_\_\_\_

Graduate College Dean: \_\_\_\_\_

UFS President: \_\_\_\_\_

Provost: \_\_\_\_\_

### Date

1/26/2022

2/8/2022

2/8/2022

2-28-22

2-28-22

Email this form and syllabus to [mjenning@fau.edu](mailto:mjenning@fau.edu) seven business days before the UUPC meeting.

## **B.S. in Computer Science to Ph.D. in Computer Science Degree Program**

The department of Electrical Engineering and Computer Science offers a combined B.S. in Computer Science to Ph.D. in Computer Science 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 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 192 credits:

1. The student has met the minimum 120 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.

1. To be eligible to apply for the combined program, students must 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 after the junior year (90 credits or more of coursework completed). The application must include one reference letter.
3. Must be admitted into the combined program at least one semester prior to the beginning of the Ph.D. portion of the 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 Science program and other requirements stipulated by the University and College
2. Completion of all requirements for the Ph.D. in Computer Science degree program.

## **Sample four-year program of study, B.S. Computer Science**

### **120 credits**

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

### **Year One (30 credits)**

#### **Fall Semester (14 cr)**

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

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

Biological Principles with Lab (BSC 1010/L) (4) (E)

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

#### **Spring Semester (16 cr)**

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

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

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

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

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

### **Year Two (30 credits)**

#### **Fall Semester (15 cr)**

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

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

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

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

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

#### **Spring Semester (15 cr)**

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

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

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

General Chemistry I (CHM 2045) (E)

Computer Architecture (CDA 4102) (EGN 4410C) (3) (R)

### **Year Three (30 credits)**

#### **Fall Semester (15 cr)**

Matrix Theory (MAS 2103) (3) (R)

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

Theory of Computing (COT 4420) (3) (R)

Intro to Database Systems (COP 3540) (3) (R)

Introduction to Internet Computing (cop 3813) (3) (SC)

#### **Spring Semester (15 cr)**

Computer Networks (CNT 4007) (3) (R)

Design and Analysis of Algorithms (COY 4400) (3) (R)

Principles of Software Engineering (CEN 4010) (3) (R)  
Computer Operating Systems (COP 4610) (3) (R)  
Introduction to Deep Learning (CAP 4613) (3) (SC)

**Year Four (30 credits)**

**Fall Semester (15 cr)**

Engineering Design I (EGN 4410C) (3) (R)  
Principles of Programming Languages (COP 4020) (R)  
Object-Oriented Design and Programming (COP 4331) (3) (SC)

Graduate Course 1 (3) (E)

Graduate Course 2 (3) (E)

**Spring Semester (15 cr)**

Engineering Design II (EGN 4411C) (3) (R)  
Mobile App Projects (COP 4655) (3) (E)  
Foundations of Cybersecurity (3) (SC)

Graduate Course 3 (3) (E)

Graduate Course 4 (3) (E)