



**Computer Science 2018-2019**

### 3. How to Apply

For an application to UCF and CS, visit or write to:  
[www.admissions.ucf.edu](http://www.admissions.ucf.edu)

UCF Office of Undergraduate Admissions  
 PO Box 160111, Orlando, FL 32816-0111

**For more information contact:**

Department of CS Undergraduate Program  
 University of Central Florida, PO Box 162362  
 Orlando, FL 32816-2362  
[www.cs.ucf.edu](http://www.cs.ucf.edu)

### 4. Additional Information

Computer Science Office/Advising (HEC 346):.....(407) 823-2341  
 College Academic Affairs (ENG1 107): ..... (407) 823-2455  
 Admissions: ..... (407) 823-3000  
 Bookstore: ..... (407) 823-2665  
 Campus Tours: ..... (407) 823-3000  
 Info & Directions to UCF: ..... (407) 882-0909  
 Employment Opportunity: ..... (407) 823-2778  
 Financial Aid: ..... (407) 823-2827  
 Housing: ..... (407) 823-4663  
 Multicultural Academic & Support: ..... (407) 823-2716  
 Veteran's Affairs: ..... (407) 823-2707  
 University Honors Program: ..... (407) 823-2076  
 UCF Web site: ..... [www.ucf.edu](http://www.ucf.edu)



## B.S. Degree Program in Computer Science

### I. General Information

This pamphlet briefly outlines the undergraduate Computer Science (CS) program for the Bachelor of Science degree offered by the Department of Computer Science (CS). CS students have many unique advantages at UCF:

- The UCF Programming Team is one of the best in the world! CS teams compete annually in the ACM's International Collegiate Programming Contest, and our CS team has an unmatched record — finishing in the Southeast region's top three every year since 1982! CS teams have earned five Top-10 finishes out of 13,000 teams world-wide.
- CS has prestigious research programs for undergraduates (REUs). CS has been an NSF REU site in Computer Vision since NSF started the program in 1987.
- The Association for Computing Machinery (ACM) student chapter, additional Research Experiences for Undergraduates (REUs), IEEE Computer Society and UPE Honor Society for Computing and Information Disciplines all provide real-life benefits including networking, face-to-face meetings with experts and career experience.
- The Department's new home is the Harris Corp. Engineering Center — an ultra high-tech building with revolutionary equipment, computers and labs for students.
- The Computer Science Foundation Exam is a qualifying test all CS majors must pass to advance to upper-level CS courses. Nationally, only UCF's CS Program uses a test this way to qualify its students. The exam covers problem solving techniques, algorithms, abstraction, proofs and language skills. Tests are held each semester, and the exam helps ensure the success of our students. It is a major resume builder and a feature many industry partners highlight as a primary reason

they want to hire CS graduates from our Department.  
 • A detailed description of our computer facilities, faculty expertise and course descriptions is at: [www.cs.ucf.edu/](http://www.cs.ucf.edu/). Click on the "Undergraduate Programs" heading and then "B.S. in Computer Science" and the sections's other links.

### I.1 Accreditation

The Computer Science BS program is accredited by the Computing Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

### 2. The Academic Program

The following information is gathered from the UCF catalog, the Undergraduate Policies and Procedures Manual and the program procedures in CS. This brochure should not be considered a legal

document, is not necessarily exhaustive and is subject to change without notice.

All UCF students must fulfill a 36-hour General Education Program (GEP) requirement. The GEP is automatically satisfied by students with a prior B.S. from an accredited institution or an A.A.

degree from a Florida community college. Please consult the UCF catalog for specific details. Students must complete 120 semester hours of course work with a grade point average (GPA) of at least 2.00 and satisfy all University and Computer Science program requirements to earn a B.S. in Computer Science.

Any student wishing to receive a BS+MS degree in CS, a double-major or to seek a second Bachelor's degree should consult the UCF catalog and the CS coordinator. A student must be an official CS major to earn the computer science degree.

**BS+MS Degree in Computer Science is also offered by the Dept of CS**

**Earn BOTH degrees in 5 years!**

For more information on the BS+MS, contact:  
**Dr. Dan Marinescu, CS Graduate Program Coordinator**  
[BSMSinCS@cs.ucf.edu](mailto:BSMSinCS@cs.ucf.edu)

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**DEPARTMENT OF COMPUTER SCIENCE**

Plan	Fall-1 (Sem 1)	Cr	Spring-1 (Sem 2)	Cr	Smmr-1 (Sem 3)	Cr	Fall-2 (Sem 4)	Cr	Spring-2 (Sem 5)	Cr	Smmr-2 (Sem 6)	Cr	Fall-3 (Sem 7)	Cr	Spring-3 (Sem 8)	Cr	Smmr-3 (Sem 9)	Cr	Fall-4 (Sem 10)	Cr	Spring-4 (Sem 11)	Cr	Total Credits	
4Year	COP3223	3	COP3502C	3	COT3960	0	COP3503C	3	COP4331C	3	STA2023	3	1st CS Elective	3	3rd CS Elect.	3	COT4210	3	COP4934	3	6th CS Elect.	3		
	MAC2311	4	MAC2312	4	COP3330	3	COP3402	3	ENC3241	3	GEP□	3	2nd CS Elective	3	4th CS Elect.	3	GEP□	3	5th CS Elect.	3	Free Elect.	3		
	ENC1101	3	COT3100C	3	CDA3103	3	PHY2048C	4	PHY2049C	4			SUP-1	4	SUP-1	4			SUP-2	3	GEP□	3		
	SPC1016	3	ENC1102	3			EP□	3	CIS3360	3			GEP□	3	SUP-2	3			Free Elect.	3	COP4935	3		
																								Total
	TOTALS=>	13		13		6		13		13		6		13		13		6		12		12	120	

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## 2.1 Course Requirements

### 2.1.1 Computer Science Core (54 hours)

#### Basic Core (Total 21 hours)

COP 3223	Intro to Programming with C
COP 3330	Intro to OO Programming with Java
COP 3502C	Computer Science I
COP 3503C	Computer Science II (3 cr)
CDA 3103	Computer Organization (3 cr)
COP 3402	Systems Software
COT 3100C	Intro to Discrete Structures
COT 3960	Passed CS Foundation Exam

#### Support Courses (Total 33 hours)

MAC 2311	Calculus w/ Analytic Geometry I
MAC 2312	Calculus w/ Analytic Geometry II
STA 2023	Statistical Methods I
PHY 2048C	Physics for Engr. & Sci. I
PHY 2049C	Physics for Engr. & Sci. II

ENC 3241	Technical Report Writing
CIS 3360	Security in Computing

Two (2) Science Courses<sup>1</sup>

<sup>1</sup> These must be courses required by the respective science majors, such as BSC 2010, BSC 2011, CHM 2045 or CHM 2046. (8 cr)

### 2.1.2 Upper Division Required Courses (21 hours)

COP 4331C	Procs for OO Development (3 cr)
COT 4210	Discrete Computational Structures
COP 4934	Senior Design I
COP 4935	Senior Design II

### 2.1.3 CS Restricted Electives (18 hours)<sup>2</sup>

Eighteen (18) additional hours of 4000- and 5000-level computer science courses. A complete list of such elective courses is available at [http://www.cs.ucf.edu/files/CS/CSIT\\_Elective\\_List\\_AY2017-2018.pdf](http://www.cs.ucf.edu/files/CS/CSIT_Elective_List_AY2017-2018.pdf). No more than three (3) hours of independent study in computer science may be used.

<sup>2</sup> Students must earn a 2.5 GPA in above courses.

### 2.1.4 Math/Stat Restricted Electives (6 hours)

Six (6) hours of math or statistics, exclusive of independent study. Course work must be selected from STA, MAP, MAA, MAD, MAS prefixes at the 4000 or 5000 level and MAC 2313, MAP 2302, MAS 3105 and MAS 3106.

## 2.2 Special Departmental Requirements

**Foundation Exam:** Prior to taking COP 4331C and COT 4210 (and beyond), students MUST pass the Foundation Exam, which covers problem solving techniques, algorithms, abstractions, proofs, programming skills, etc. Typically, students are expected to take the Foundation Exam the semester following the completion of COP 3502C (CS1).

**Grade Requirements:** All department-required courses (listed in sections 2.1.1, 2.1.2, 2.1.3 and 2.1.4) must be passed with a "C" grade or better. A minimum GPA of 2.5 is required in the courses listed in section 2.1.3.

**Departmental Residency Requirement:** At least 24 hours of computer science coursework must be completed in the CS department at UCF (18 hours of these in regularly scheduled 4000-5000-level courses and six (6) of these in 3000- to 5000-level).

## 2.3 Transfer of Credit

Courses with a common course number taken at any Florida State University System (SUS) institution or Florida State or community college are automatically transferable. Students with a Bachelor of Science from an accredited institution or an Associate of Arts degree from a Florida SUS institution or Florida community college automatically satisfy the GEP. Substitutions for GEP must be approved through Academic Services, Millican Hall (MH) 210.

Substitutions for department requirements are on a course-by-course basis and MUST be approved by the CS Undergraduate Coordinator and the CS Chair. Instructions for this process are in the Computer Science office: Harris Corporation Engineering Center (HEC 346). The decision is typically based on the degree of similarity of the two courses both in content and level of presentation. Regardless of transfer credit, the University and Department residency requirements must be satisfied. **Exception:** Substitution requests for courses offered by other departments must be filed in the Academic Affairs Office (Eng1-107) or the department offering the course.

Plan	Fall-1 (Sem 1)	Cr	Spring-1 (Sem 2)	Cr	Smmr-1 (Sem 3)	Cr	Fall-2 (Sem 4)	Cr	Spring-2 (Sem 5)	Cr	Smmr-2 (Sem 6)	Cr	Total Credits	Cr
AA + 2years	COP3223	3	COP3502C	3	COT3960	0	COP4331C	3	COP4934	3	COP4600	3	AA-Degree	60
	SUP-2	3	CDA3103	3	COP3402	3	CIS3360	3	4th CS Elect.	3	COP4020	3		
	ENC3241	3	COP3330	3	COP3503C	3	1st CS Elect.	3	5th CS Elect.	3				
	COT3100C	3	SUP-2	3			2nd CS Elect.	3	6th CS Elect.	3				
													Total	
	TOTALS=>	12		12		6		15		12		6	60	123

We assume the AA degree includes:

MAC2311, MAC2312, STA2023, PHY2048, PHY2048L, PHY2049, PHY2049L and 6 credits from BSC2010, BSC2011, CHM2045, CHM2046.

Total Degree Hours = 120 Credit Hours

PLAN COMMENTS:		
SUP-1	CS Science	Choose <b>two courses</b> (at least 6 cr) from the <b>Science Group</b> ; one sequence in the same discipline or one course from each discipline.
SUP-2	CS Math/Stat	Choose <b>two courses</b> from the <b>Upper Division Math/Stat Group</b> .
CS-Elective	CS - 4000/5000	Choose <b>six courses</b> from the link below: <a href="http://www.cs.ucf.edu/files/CS/CSIT_Elective_List_AY2017-2018.pdf">http://www.cs.ucf.edu/files/CS/CSIT_Elective_List_AY2017-2018.pdf</a> Any 4000/5000 level regular or special topics course offered by the CS faculty. This group also includes at most 3cr of 4000 level Independent Study or Directed Research on the undergraduate plan of study.

**Note:** The "Sample Program of Study" assumes that the student has an AA from a Florida Community College and has completed all science/math courses.

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