Computer Science Course Flowchart


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).

### 2.4 Transfer of Credit

Courses with a common course number taken at any Florida State University System (SUS) institution or Florida
community college are automatically transferable. Students 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 EECS Director. 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. Regardess of transer credit, He University Ex Department residency requirements must be satishic PHY 2048, PHY 2049, CHM 2045, CHM 2046, BSC 2010 and BSC 2011 must be filed in the Academic Affairs Office (ENG1 107).
3. How to Apply

For an application to UCF and CS, visit or write to: www.admissions.mca.ucf.edu PO Box 160111, Orlando, FL 32816-011

For more information contact:
Department of EECS CS Undergraduate Program Orlando, FL 32816 PO B
Orlando, FL 32816-236
www.eecs.ucf.edu or www.eecs.ucf.edu/undergrad/CS

## 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: ............................................................... 827) 823-2827 Housing. Multicultural Academic \& Support: ................ (407) 823-2716 Veteran's Affairs: ........................................ (407) 823-2707 University Honors Program: ........................ (407) 823-2076 UCF Web site: .................................................www.ucf.edu

## Stands For Opportunity

## 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 Electrical Engineering \& Computer Science . CS students have many unique advantages at UCF - The UCF Programming Team is one of the best in the world! CS Contest and annually in the ACM s internarecord - finishing in the Southeast region's top three every year since 1982! CS teams have earned five Top-10 finishes
out of 8,000 teams world-wide.

- EECS has prestigious research programs for undergraduates REUs). EECS has been an Vision since NSF started the vision since NSF
- The Association for Computin Machinery (ACM) student chapter, additional Research Experiences for Undergraduates (REUs), IEEE Comput Society and UPE Computer Science Honor Society and the CS Foundation Exam 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 student.
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 of EEC A detailed description of our computer facilities, faculty expertise and course descriptions is at: www.eecs.ucf.edu/ "B.S. in Computer Science" and the sections's other links.


## . I Accreditation

The Computer Science BS program is accredited by the omputing Accreditation Commission of ABET, 111 Marke Place, Suite 1050, Baltimore, MD 21202-4012, telephone: (410)

## 2.The Academic Program

The following information is gathered from the UCF catalog

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

## Earn BOTH degrees in 5 years!

For more information on the BS+MS, contact: Dr. Hassan Foroosh CS Graduate Program Coordinator SMSinCS@eecs.ucf.edu
the Undergraduate Policies and Procedures Manual and the This brochure should not be considered a legal document, is 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
 requirements to arn B S . in Computer Science
nputer Science
Any student wishing to receive a BS+MS degree in CS, consult the UCF catalog and the CS coordinator. A student must be an official CS major to earn the computer science degree.
2.1 Foreign Language \& Multicultural Requirements There are two separate issues with regard to foreign State of Florida requires two years of high school foreig

| Plan | $\begin{gathered} \text { Fall-1 } \\ \text { (Sem 1) } \end{gathered}$ | Cr | Spring-1 (Sem 2) | Cr | $\begin{aligned} & \text { Smmr-1 } \\ & \text { (Sem 3) } \end{aligned}$ | Cr | $\begin{gathered} \text { Fall-2 } \\ \text { (Sem 4) } \end{gathered}$ | Cr | Spring-2 (Sem 5) | Cr | $\begin{aligned} & \text { Smmr-2 } \\ & \text { (Sem 6) } \end{aligned}$ | Cr | $\begin{gathered} \text { Fall-3 } \\ \text { (Sem 7) } \\ \hline \end{gathered}$ | Cr | Spring-3 (Sem 8) | Cr | Smmr-3 <br> (Sem 9) | Cr | Fall-4 (Sem 10) | Cr | Spring -4 (Sem 11) | Cr | Total Credits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4Year | COP3223 | 3 | COP3502 | 3 | MAC2312 | 4 | COP3503C | 4 | COP4331 | 4 | STA2023 | 3 | EEL4768 | 4 | COP4600 | 3 | COT4210 | 3 | COT4810 | 3 | CS-A | 3 |  |
|  | COT3100 | 3 | CDA3103 | 3 | COP3330 | 3 | COP3402 | 3 | ENC3241 | 3 | GEP-4 | 3 | COP4020 | 3 | CS-A | 3 |  |  | CS-A | 3 | SUP-3 | 3 |  |
|  | ENC1101 | 3 | MAC2311 | 4 |  |  | PHY2048C | 4 | PHY2049C | 4 |  |  | SUP-1 | 4 | SUP-1 | 4 |  |  | GEP-2a | 3 | GEP-2b | 3 |  |
|  | GEP-1 | 3 | ENC1102 | 3 |  |  | GEP-3 | 3 | CIS3360 | 3 |  |  | GEP-5 | 3 | SUP-2 | 3 |  |  | SUP-2 | 3 | Free | 3 |  |
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|  |  |  | F.Exam | 0 | F.Exam | 0 | F.Exam | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Total |
|  | TOTALS=> | 12 |  | 13 |  | 7 |  | 14 |  | 14 |  | 6 |  | 14 |  | 13 |  | 3 |  | 12 |  | 12 | 120 |

## (Continued from front..)

anguage (or equivalent). This is called "Foreign Language Admission Requirement." In some cases, students who did not have two years of foreign language in high school are provisionally admitted but they must satisfy the requirement before graduation.

Foreign Language Graduation Requirement: All undergraduates must demonstrate proficiency in a testabl foreign language (see UCF catalog for the definition of "testable") equivalent to successful completion of one year the comege leve Altrassful completion of the equivalent course work. In the case of non-testable languages, the requirement may be satisfied by documentation through the Office of Undergraduate Studies.

Computer science students who satis atisfy the Foreign Language Admission Requirement may satisfy he Fors rom a list of multicultural or college-level foreign language courses and CIS 3360. Those who have not yet satisfied the Foreign Language Admission Requirement should complete two (2) semesters of a single foreign language at college level. This simultaneously satisfies both admission and graduation equirements.

Please see the Computer Science Academics Web page www.eecs.ucf.edu/undergrad/CS/) and click on "Foreign list of courses that satisfy this multicultural requirement.

### 2.2 Course Requirements

2.2.1 Computer Science Core ( 56 hours)

Basic Core (Total 22 hours)
COP 3223 Intro to Programming with C Intro to OO Programming with Java COP $3502 \quad$ Computer Science I
CDA 3103 Computer Organization (3 cr)
COP 3402 Systems Software
$\begin{array}{ll}\text { COT } 3100 & \text { Intro to Discrete Structures }\end{array}$
COT $3960 \quad$ CS Foundation Exam
Support Courses (Total 33 hours)
MAC $2311 \quad$ Calculus w/ Analytic Geometry I
Calculus w/ Analytic Geometry II
PHY 2048C $\quad \begin{aligned} & \text { Statistical Methods I } \\ & \text { Physics for Engr. \& Sci. }\end{aligned}$

PHY 2049C Physics for Engr. \& Sci. II
Two (2) Science Courses
ENC 3241 Technical Report Writing CIS 3360 Security in Computing ${ }^{1}$ These must be courses required by the respective science majors, such as BSC 2010, BSC 2011, CHM 2045 or CHM 2046. (8 cr)
2.2.2. Upper Division Required Courses ( 20 hours) COP $4331 \quad$ Procs for OO Development ( 4 cr ) EEL 4768 Intro to Computer Architecture ( 4 cr )
COP 4020 Programming Languages
COP 4600 Introduction to Operating Systems
$\begin{array}{ll}\text { COT } 4210 & \text { Discrete Computational Structures }\end{array}$
${ }^{2}$ Students must earn a 2.5 GPA in above courses.
COT $4810 \quad$ Topics in Computer Science
2.2.3 Restricted Electives ( 15 hours)

Nine (9) additional hours of 4000 - and 5000 -level computer science courses. A partial list of such elective courses science courses. A partial ist of such elective courses
includes: CAP 4020, CAP 4453, CAP 4630, CGS 5131, COP 4520, COP 4516, COP 4710, COT 4110, COT 4500, CIS $4361^{3}$, and CIS $4363^{3}$. No more than three (3) hours of independent study in computer science may be used. ( ${ }^{3}$ See SCAN Minor.)
Six (6) hours of math or statistics, exclusive of independent study. Course work must be selected from STA, MAP, MAA study. Course work must be selected from leve, MAP, MAA
MAD, MAS prefixes at the 4000 or 5000 level and MAC 2313, MAP 2302, MAS 3105 and MAS 3106.

### 2.3 Special Departmental Requirements

Foundation Exam: Prior to taking COP 4331 and COP 4600 (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 in the same semester they complete COP 3502 and COT 3100.

Grade Requirements: All department-required courses "isted in sections 2.2.1, 2.2 .2 and 2.2.3) must be passed with . 2.2 um GPA of 2.5 is required in the courses listed in section 2.2.2.


|  |  |  PLAN COMMENTS: <br> GEP-1 Speech GEP Choose one course from the Speech Group, GEP-1. |
| :--- | :--- | :--- |
| GEP-2 | History GEP | Choose one course from the Historical Foundations <br> Group, GEP-2. |
| GEP-3 | Culture GEP | Choose one course from the Cultural Foundations <br> Group, GEP-3. |
| GEP-4 | History or Culture GEP | Choose one additional course from GEP-2 or GEP-3, <br> GEP-4. |
| GEP-5 | Social 1 GEP | Choose one course from Social Foundations Group <br> 1, GEP-5. |
| GEP-6 | Social 2 GEP | Choose one course from Social Foundations Group <br> 2, GEP-6. |
| SUP-1 | Cs Science | Choose two courses (at least 6 cr) from the Science <br> Group; one sequence in the same discipline or one <br> course from each discipline. |
| SUP-2 | CS Math/Stat | Choose two courses from the Upper Division <br> Math/Stat Group. |
| SUP-3 | CS Culture \& FL | Choose one course from the CS Multi-culture Group. <br> This includes any college level Foreign Language. |
| CS-A | CS - 4000/5000 | Choose one course from Group, CS-A. Any 4000/5000 <br> level regular or special topics course offered by the CS <br> faculty. This group also includes at most 3cr of 4000 <br> level Independent Study or Directed Research on the <br> 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.

