GENERAL EDUCATION (18)***

Composition (includes ENC 3254).................................3
Social and Behavioral*..............................................6-9
Humanities* (includes HUM 2305).........................6-9
International and Diversity**.................................6

* Both categories combined must total 15 hours with no fewer than 6 hours taken in either category (i.e. 6 in one, 9 in other).
**Courses selected will also fulfill the General Education requirement in Social and Behavioral (S) or Humanities (H).
***The Mathematics, Physical Sciences, and Biological Sciences requirements are covered by the departmental requirements below.

DEPARTMENTAL REQUIREMENTS

Mathematics (21)
_ MAC 2311 Analytic Geometry & Calculus 1 .........................4
_ MAC 2312 Analytic Geometry & Calculus 2 .........................4
_ MAC 2313 Analytic Geometry & Calculus 3 .........................4
_ MAP 2302 Elementary Differential Equations (Cal 2) ........3
_ MAS 3114 Comp. Linear Algebra (Cal 2 & prog. lang.exp.) .3
_ STA 3032 Engineering Statistics (Cal 1) .......................3

Physics (8)
_ PHY 2048 Physics w/Cal 1 (HS Physics, Cal 1; Cal 2, PHY2048L) .3
_ PHY 2048L Lab for PHY 2048 (PHY 2048) .....................1
_ PHY 2049 Physics w/Cal 2 (PHY 2048; Cal 3, PHY2049L) .....3
_ PHY 2049L Lab for PHY 2049 (PHY 2049) ..................1

Chemistry (4)
_ CHM 2045 Gen Chemistry (CHM 1025; pass chem. readiness).3
_ CHM 2045L Lab for CHM 2045 (CHM 2045) ...................1

Communications (6)
_ ENC 3254 Professional Communications for Engineers .......3
_ Writing or Public Speaking course (advisor approval) .......3

Interdisciplinary Electives (15) (choose one option)
Option A*: 15 credits applicable to a formal UF minor; completion of minor not required if it exceeds 15 credits, however, it is highly recommended.
Option B: 15 credit hours in courses at 3000-level or above in the same area of study (advisor approval required).
* If the minor requires less than 15 credits, the remaining credits can be fulfilled with additional upper-division coursework in the area of the minor or with CISE technical electives.

Computer Science Major Courses (36)
_ COP 3504 Adv. Prog. Fund. for CISE Majors (Cal 1, prog. exp.) ..3
_ OR COP 3502 + COP 3503 Prog. for CISE Majors & 2 ..........3*
_ COT 3100 App. of Discrete Structures (Cal 1; COP 3504/03) ....3
_ COP 3530 Data Struct & Algorithms (COP 3504/03, COP 3100, Cal 2) ....4
_ CDA 3101 Intro to Comp Organization (Cal 1, COP 3504/03) .....3
_ CEN 3031 Intro to Software Engineering (COP 3530) .........3
_ COP 4501 Numerical Analysis (COP 3504/03, MAS3114) ....3
_ OR MAD 4401 Int. Num. Anlys. (MAS 3114) if Math minor ....3
_ COP 4600 Operating Systems (COP 3530, CDA 3101) .........3
_ CNT 4007C Comp. Network Fund. (COP 4600) ...............4
_ CIS 4914 Sr. Project or CIS 4913C-IPPD 2 (4EG) .............3
_ CIS 4301 Info & DB Sys Dsgn & Dev 1(COP 3504/03, COP 3100) .3
_ EEL 3701C Digital Logic & Computer Systems (COP 3504/03) ......4
_ * COP 3502 will count for 3 hrs of Technical Elective.

Ethics (1)
_ EGN 4034 Professional Ethics (4EG) ..........................1
_ OR CGS 3065Legal & Social Issues in Computing (F) ..........3

Technical Electives (15*) - 11 hrs must be CISE courses
_ CAP 4053 AI for Computer Games (COP 3530) ..................3
_ CAP 4410 Digital Image Processing (COP 3530) .............3
_ CAP 4621 Artificial Intelligence & Heuristics (COP 3530) ....3
_ CAP 4680 Knowledge-Based Syst.: Theory & Pract. (CAP 4621) ....3
_ CAP 4730 Comp. Structures in Computer Graphics (COP 3530) ....3
_ CAP 4800 Systems Simulation (COP 3530) .................3
_ CAP 4403 Aesthetic Computing (COP 3530) .............3
_ CDA 4102 Computer Architecture (CDA 3101, COP 3530) ....3
_ CEN 4012 Software System Development (CEN 3031) .......3
_ CEN 4072 Software Testing & Verification (CEN 3031) .......3
_ CIS 4905 Individual Study ......................................1-4
_ CIS 4912CI/PDD 1 (CDA 3101, COP 3530, consent of instr.) ....3
_ COP 4020 Programming Language Concepts (COP 3530) .....3
_ COP 4331 Object-oriented Programming (COP 3530) .....3
_ COP 4343 UNIX System Administration (COP 4600) .......3
_ COP 4620 Translators & Translator Writing Sys. (COP 3530) ....3
_ COP 4720 Info & DB System Design & Dev. 2 (CIS4301, COP 3530) ....3
_ CGS 3065Legal & Social Issues in Computing (F) ...........3
_ EIN 4354 Engineering Economy (Jr. Standing) ................3
_ CIS 4930 Special Topics (advisor approval) .................3
_ CIS 4940 Internship (advisor approval) .....................1
_ CIS 4949 Co-op (advisor approval) .........................1

* The above list is not exhaustive. Electives may be:
1) Any 3000-level CISE, ECE or PHY course not taken to fulfill some other requirement, excluding EEL 3503, EEL 4834, and most CGS courses.
2) Any 4000-level math or statistics course with the prefix STA, MAA, MAD, MAP, MAS or MHF not taken to fulfill any other requirement with the following exceptions:
   - Take only ONE of these: COT 3100, MAD 4203, or MAD 3107.
   - COT 4501 and MAD 4401 may not take both
   - COT 4420 and MAD 4504 may not take both

**COP 3502, COP 3275, and COP 3229 are considered programming language courses. At most, 3 credits of a programming language course may count towards technical elective credit. See Advisor for approval.

NOTES:
- Students must complete all Critical Tracking (bold) courses with a C or better within two attempts (W counts as an attempt), while maintaining a 2.5 tracking GPA. Must maintain UF and CISE GPA of 2.0.
- COP 3504 is not equivalent to COP 3503. Any student who takes COP 3502 must then take COP 3503. If a student takes COP 3502/3503 sequence, then they do not have to take COP 3504.
- ENC 3254, EEL 3701C, COP 3530, and COP 3503 must be completed with a C or better. A grade of C- or lower will not fulfill degree requirements.
- Courses in parenthesis are prerequisites; underlined courses are corequisites.
- An Exit Interview is required during final semester. Please see an academic advisor for details.
- CGS 3065 will count for both the Ethics requirement and 3 hrs of Technical Elective.

*Minimum Total Hours........................................................................................................121

Rev 8/12: This document is intended to be used only as a counseling guide. Graduation requirements are more completely specified in the UF Undergraduate Catalog.