Bachelor of Science in Computer Science

FIU | Computing & Information Sciences

Software Design & Development Track (effective 8/2012)

Core Courses

- **MAC 2311*** — *Calculus I* (4 credits)
- **Natural^ Science Elective** — See PDA/Advisor
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- **COP 2210** — *Programming I and Lab* (4 credits)
- **COT3100*** — *Discrete Structures* **OR** **MAD 2104*** — *Discrete Math*
- **CGS 1920** — *Introduction To Computing* (1 credit)
- **ENC 3249*** — *Professional & Technical Writing for Computing* **(GRW)**

- **MAC 2312** — *Calculus II* (4 credits)
- **PHY 2048/2048L** — *Physics I w/Calculus* (5 credits)
- **CDA 3103** — *Fundamentals of Computer Systems*
- **COP 3337** — *Programming II*
- **CGS 3095** — *Technology in the Global Arena* **(GL)**

- **PHY 2049/2049L** — *Physics II w/Calculus* (5 credits)
- **CDA 4101** — *Computer Organization*
- **COT 3541** — *Logic for Computer Science*
- **COP 3530** — *Data Structures*
- **COP 4710** — *Database*

- **STA 3033** — *Probability & Statistics*
- **MAD 3512** — *Algorithms*
- **COP 4338** — *Programming III*
- **COP 4555** — *Programming Languages*
- **CEN 4072** — *Software Testing*

- **COP 4610** — *Operating Systems*
- **CNT 4713** — *Net Centric Computing*
- **CEN 4010** — *Software Engineering I*

- **CEN 4021** — *Software Engineering II*
- **CIS 4911** — *Senior Project*

CS Electives (choose one)

All courses are 3 credits, except as noted.

- **CAP 4104** — *Human Cmptr Interaction* — Pre: COP3337
- **CAP 4453** — *Robot Vision* — Pre: COP3530 & MAC2312
- **CAP 4506** — *Intro to Game Theory* — Pre: MAC2312
- **CAP 4630** — *Artificial Intelligence* — Pre: COP3530
- **CAP 4641** — *Natural Lang Processing* — Pre: COP3530
- **CAP 4710** — *Computer Graphics* — Pre: COP3337, MAC2312
- **CAP 4770** — *Introduction to Data Mining* — Pre: COP3530 Co: COP 4710
- **CDA 4625** — *Intro to Mobile Robotics* — Pre: COP3530 & STA3033
- **CEN 4083** — *Cloud Computing* — Pre: CNT4713, CDA4101
- **COP 4226** — *Advanced Windows Programming* — Pre: COP3530
- **COP 4520** — *Intro to Parallel Computing* — Pre: COP3530, CDA4101
- **COP 4534** — *Algorithm Techniques* — Pre: COP3530
- **COP 4604** — *Advanced UNIX Programming* — Pre: COP 4610
- **COP 4722** — *Survey of Database Systems* — Pre: COP4710
- **COT 4521** — *Intro to Computational Geometry* — Pre: COP3530
- **MAD 3401** — *Numerical Analysis* — Pre: COP2210, MAC2312
- **MAD 3305** — *Graph Theory* — Pre: COP2210, MAD2104
- **MAD 4203** — *Combinatorics* — Pre: MAD2104, MAC2312
- **MHF 4302** — *Math Logic* — Pre: MAD 3512

Legend

- A line indicates a prerequisite. The course above must be completed before the course below can be taken.
- A diamond indicates a co-requisite. The course closer to the diamond may be taken at the same time as the co-requisite. The co-requisite is a prerequisite for any course that requires the course closer to the diamond.
- A junction is where multiple prerequisites are joined.

* Prerequisites:
 - ENC 3249: UCC English requirements
 - MAC 2311: (MAC1140 + MAC1114) or MAC1147

^ Natural Science electives: lab not needed unless required by offering dept.

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