COMPUTER SCIENCE †

120 Hours

(revised 10/12/2017)

Freshman Year	***Credit***
UNIV 100	3
CMPS 150	3
CMPS 260[1]	3
EECE 140	3
ENGL 101	3
ENGL 102	3
MATH 270	4
MATH 301	4
Elective (BHSC) [2,3]	3
Elective (HIST)	3
	32

Sophomore Year	***Credit***
CMPS 261[1]	3
CMPS 310	2
CMPS 340	3
CMPS 341	3
CMPS 351	3
MATH 362	3
Elective (LIT) [5]	3
Electives (SCI) [3,6]	6
Concentration Elective [7]	3
	29

Junior Year	***Credit***
CMPS 430	3
CMPS 453	3
CMPS 455	3
STAT 325 or 427	3
ENGL 365	3
STAT 454	3
Electives	3
Elective (SCI) [3,6]	4
Concentration Elective [7]	3
	28

Senior Year	***Credit***
CMPS 450	3
CMPS 460	3
CMPS 4xx	3
Elective (CMPS) [8]	3
Concentration Electives [7]	9
Elective (BHSC) [2,3]	3
Electives (ARTS) [4]	3
Electives	4
	31

†This program is accredited by the Computing Sciences Accreditation Board (CSAB/ABET). Students will be allowed to enter Upper Division if they have earned a grade of "C" or better in CMPS 261. To qualify for graduation, a student must earn a grade of "C" or better in all CMPS, MATH, STAT, and EECE courses which are applied to the degree, as well as all concentration electives.

[1] On the third grade of "W", "D", or "F" in any of these courses, the student will not be permitted to continue pursuing a major in Computer Science at the University of Louisiana at Lafayette.

[2] To be chosen from Anthropology, Criminal Justice, Geography, Economics, Political Science, Psychology, or Sociology. At least 3 hours of behavioral science must be at the 200-level or above.

[3] Selection may depend on concentration.

[4] To be chosen from DANC, MUS, THEA, or VIAR, ARCH or Design.

[5] Any course in ENGL or MODL that focuses on literary texts.

[6] Must include both biological and physical sciences. All three courses must be courses for science majors. One of these courses must be taken with its associated lab.

[7] Concentrations: Video Game Design and Development, Cognitive Science, Information Technology, Scientific Computing, and Computer Engineering. A list of courses that satisfy concentration electives is available in the CMPS department.

[8] Must be a course for majors.

CONCENTRATION AREAS & REQUIREMENTS

2015-2017

Revised: January 2017

Cognitive Science

CMPS[1]
CMPS[1]
ENGL 351 Linguistics
ELECT[2]
ELECT[2]

[1] Chosen from CMPS 415, 420, 452 or 359/499s that apply to the concentration
[2] Chosen from PSYC 110,313,315,330,340,360; ENGL 425,452,458; PHIL 342,349,361,448; INFX 301

Computer Engineering

MATH 302/350 Calculus III / Differential Equations
EECE 240 Digital Systems
EECE 355 Circuits and Signals
EECE[1]
EECE[1]

[1] Chosen from EECE 233, 335, 340, 413
Note: This concentration requires PHYS 201/207, 202/208 for the physical science lectures.

Information Technology

CMPS[1]
CMPS[1]
ACCT 201 Principles of Accounting I
ELECT[2]
ELECT[2]

[1] Chosen from CMPS 353,360, 420, 452, 359/499s that apply to concentration, or INFX 240, 320, 450, 451
[2] Choose from ACCT 202, MGMT 320, 350, 390, BLAW 310, 415, 425, ECON 300, 320, 330, BSAT 303

Scientific Computing

CMPS 352[+] Scientific Computing
CMPS 415 Graphics
MATH 302 Calculus III
MATH 350 Differential Equations
MATH[1]

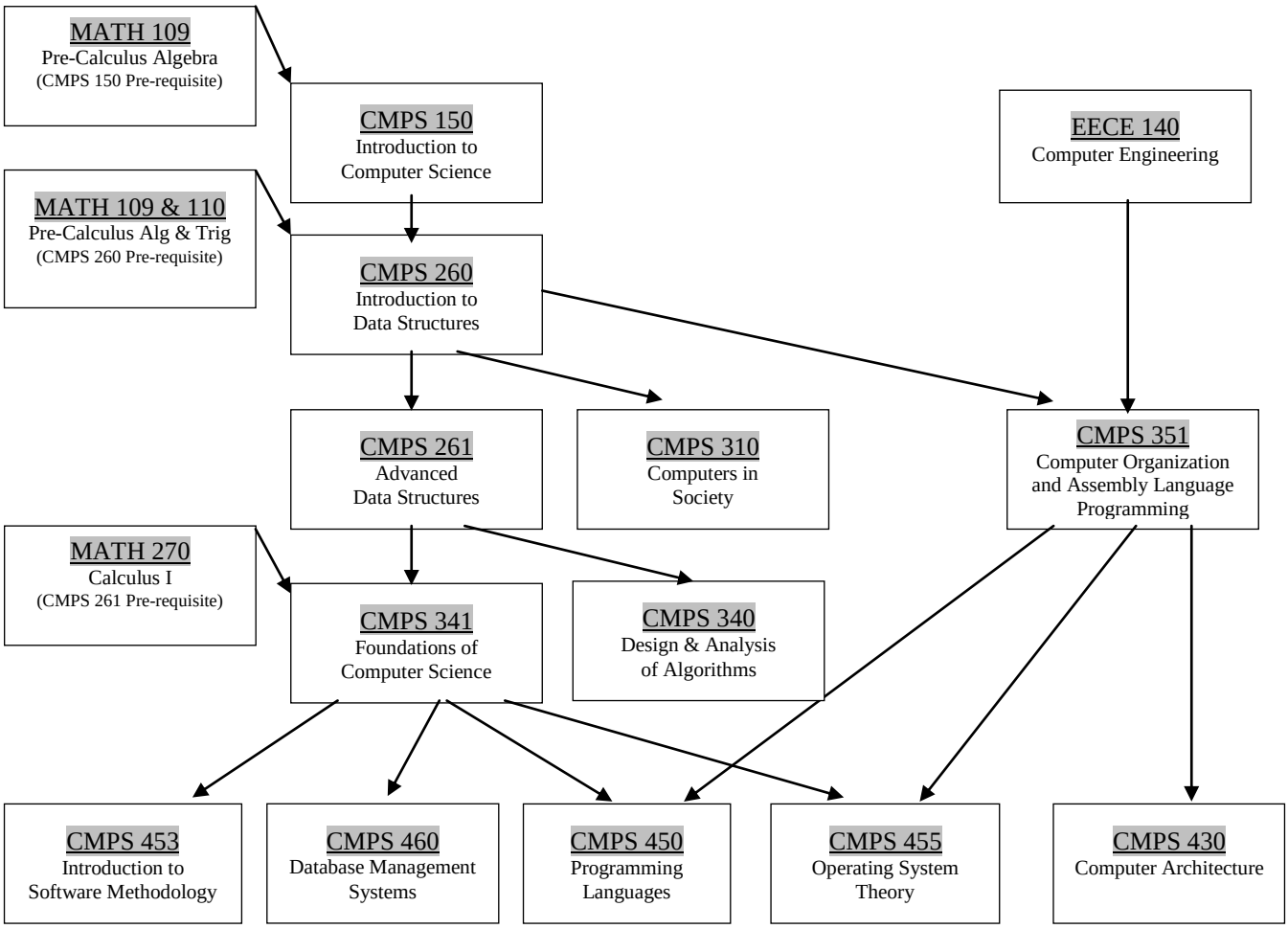
[+] If CMPS 352 not offered, choose from CMPS 3xx/4xx or MATH 3xx/4xx that applies to concentration.
[1] Chosen from MATH 435, 440, 450, 455, 475, 481, 483, 487, 491, 493, 495

Video Game Design & Development

CMPS 327 Introduction to Video Game Design & Development
CMPS 427 Video Game Design & Development
Choose 3 from the following: CMPS 359 (Gaming Topic), 415, 420, 452, 499
CMCN 365
ENGL 223, 325, 327
THEA 251, 300
VIAR 235, 335, 365, 366, 465
Note: This concentration requires PHYS 207 (or PHYS 201) as a SCI elective.

Summary of Computer Science Requirements

Computer Science Core and Pre-requisite Structure



Computer Science Electives

CMPS 327 Introduction to Video Game Design and Development	CMPS 352 Scientific Computing	CMPS 353 Principles of File Organization	CMPS 358 C# / .Net Software Development	CMPS 359 Topics in Software Development (1 - 3 Credits)
CMPS 360 Programming in Java	CMPS 415 Computer Graphics	CMPS 420 Artificial Intelligence	CMPS 427 Video Game Design and Development	CMPS 440 Theory of Computation
CMPS 451 Compiler Construction	CMPS 452 Human-Computer Interface Design	CMPS 490 Senior Project	CMPS 497/498 Special Projects	CMPS 499 Special Topics in Computer Science

SCIENCE ELECTIVES

Physical Sciences Lectures

CHEM 107	3 hrs	
CHEM 108	3 hrs	
GEOL 105	3 hrs	
GEOL 106	3 hrs	
PHYS 207	3 hrs	
PHYS 208	3 hrs	
PHYS 201	4 hrs	**
PHYS 202	4 hrs	**

NOTE:
If a student takes GEOL 111, this is a GEOL lecture and lab course in one. It is four (4) credit hours.
It is equivalent to GEOL 105+7

Biological Sciences Lectures

BIOL 121	3 hrs	
BIOL 122	3 hrs	
BIOL 110	3 hrs	**
BIOL 111	3 hrs	**

Physical Sciences Labs

CHEM 115	2 hrs	(pre-requisite is CHEM 108)
GEOL 107	1 hr	
GEOL 108	1 hr	
PHYS 215	1 hr	

Biological Sciences Labs

BIOL 123	1 hr	
BIOL 112	1 hr	
BIOL 113	1 hr	

** these science lectures are those required by PHYS and BIOL majors

A student must select 9 hours of lecture, where at least one biological science and one physical science are included in the 9 hours. A student must also select one respective lab. Six of the nine lecture hours must be in the same science.

Students in the Computer Engineering concentration must take PHYS 207/208 for 6 of their 9 lecture hours. They are allowed, however, to take PHYS 201/202, which is the calculus-based sequence.

Note:

Students in the Computer Engineering concentration must earn a grade of C or better in PHYS 202 if they choose EECE 335 as one of their concentration electives.

NOTES:

Students who wish to enroll for a Special Project (CMPS 497 or 498) must have completed CMPS 341 and CMPS 351 and have an overall GPA of 2.5 or better.

Students who wish to enroll in the Senior Project course (CMPS 490) must have completed 3 hours of 400-level CMPS courses, with a grade of 'C' or better, and permission of instructor.

LITERATURE ELECTIVES

ENGLISH – Any ENGL course that focuses on literary text. Linguistics, vocabulary development, and language courses do not qualify.

ARTS ELECTIVES

DANCE – DANC 101, 102, 113, 114

MUSIC – 105 (All Styles), 108 (Jazz), 109 (Broadway), 308 (Fund. of Music),
321/322 (Voice I/II), 323/324 (Piano Class), 325/326 (Guitar Class),
360 (Cajun & Zydeco Music), 362 (Creole & Black Music), 364 (Music of the World)

THEATRE – THEA 161, 261

VISUAL ARTS – VIAR 120, 121, 122

DSGN 121 (Survey of Design)

COMMUNICATIONS ELECTIVES (see note **)

COMMUNICATION
CMCN 100 (Principles of Human Communication), 101 (for international students only)
202 (Argumentation & Debate), 203 (Honors 100), 212 (Introductory Newswriting)
302 (Competitive Forensics), 310 (Public Speaking)
ENGL 360 (Advanced Writing)
ENGL 365 (Technical Writing) ***** Note: This requirement is fulfilled with our curriculum.***
THEA 261 (Acting I)

HISTORY ELECTIVES

HISTORY - All courses except HIST 490

BEHAVIORAL SCIENCES ELECTIVES

ANTHROPOLOGY – Any ANTH course.
CRIMINAL JUSTICE – Any CJUS course.
ECONOMICS - 201, 202, 300
GEOGRAPHY – Any GEOG course.
POLITICAL SCIENCE –Any POLS course.
PSYCHOLOGY – Any PSYC course.
SOCIOLOGY – Any SOCI course.

At least one of the two BHSC requirements MUST be at the 200-level or above.

NON-CREDIT COURSES

No Computer Science major may receive credit for ANY of the following:

1. ACSK courses
2. ADOS, All courses except ADOS 420
3. BSAT 101, 205, 206, 306, 311, 321
4. BCOM All courses
6. CMPS All courses for non-majors
7. ENGR 101
8. ITEC 101
9. MATH - No course that is a prerequisite to a required course: 92, 100, 105, 107, 140, 143, 117, 201, 206, 210, 217, 250, 317, 470
10. Any KNEA courses beyond 4 credit hours
11. QMET 251, 252, 450
12. STAT 214
13. HONR 110, 210, 310, 410

SEMESTER COURSE OFFERINGS

Course	FALL	SPRING
CMPS 150	√	√
CMPS 207	√	√
CMPS 260	√	√
CMPS 261	√	√
CMPS 310	√	√
CMPS 327	√	
CMPS 340	√	√
CMPS 341	√	√
CMPS 351	√	√
CMPS 358/359/360	√ **(distributed odd/even years)**	√ **(distributed odd/even years)**
CMPS 415	√	
CMPS 420		√
CMPS 427		√
CMPS 430	√	
CMPS 440		√ **(when possible)**
CMPS 450	√	
CMPS 451		√ **(when possible)**
CMPS 452		√ **(when possible)**
CMPS 453	√	
CMPS 455		√
CMPS 460		√
CMPS 499*	√	√

***Topics vary by semester**

Advising

The Computer Science Department has established an advising structure that is supported by the Computer Science faculty and graduate students.

During the early advising period, you will be assigned to one of the faculty members by your last name. You may sign up with your advisor using the sign-up sheets in the CMPS Department office, Room 222.

After the early advising period, students will be advised by either setting up an appointment with their faculty member advisor, or by setting up an appointment with the department's graduate student advisor in Room 222G.

Appointments for Advising

You must make an appointment with your assigned faculty advisor. Please refer to ULink to see who your faculty advisor is. During the early advising period, sign up for an advising appointment using the sign-up sheet in the CMPS Department office, Room 222.

Schedule of Classes

The Schedule of Classes can be accessed online. Select the *Current Students Link,* then the *Schedules of Classes* link under the heading **Courses and Calendars**. Use information found in the schedule of classes to complete a trial schedule **before your appointment.**

Your advisor will clear your advising hold after you have completed an advising session with him/her.

Advantages of Early Registration

Scheduling is not something that should be done at the last minute. Taking some time to choose your classes wisely will help you graduate on schedule and also improves your performance each semester by distributing the workload of difficult project courses.

Information about Courses and Curriculum

Prerequisite – A prerequisite is an academic requirement which must be satisfied prior to enrolling in a course.

Corequisite – A corequisite is an academic requirement which must be satisfied concurrent with enrolling in a course. A student requesting a course must be currently enrolled in all corequisites listed for that course or must otherwise satisfy the instructor and the head of the department that he/she has had the equivalent preparation.

To obtain information about courses and the curriculum, consult the UL Lafayette catalog, the Computer Science Web Page (http://www.louisiana.edu/Academic/Sciences/CMPS), or this *Advising Handout*. These sources of information include the curriculum, the prerequisite structure of the computer science core, courses which may be chosen to fulfill the various degree requirements, regular fall and spring course offerings, and courses which do not count towards your degree.