COMPUTER SCIENCE †

120 Hours

(2024-2025, revised September 2024)

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	3
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
	30

Junior Year	***Credit***
CMPS 315	3
CMPS 320	3
CMPS 413	3
CMPS 430	3
CMPS 453	3
CMPS 455	3
STAT 325 or 427	3
ENGL 365	3
Elective (SCI) [3,6]	4
	28

Senior Year	***Credit***
CMPS 432	3
CMPS 450	3
CMPS 460	3
CMPS 490	3
Elective (CMPS) [8]	3
Concentration Electives [7]	6
Electives (BHSC) [2,3]	3
Elective (ARTS)[4]	3
Electives	3
	30

†This program is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.
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, VIAR or DSGN.

[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 intended for science or engineering majors. One of these courses must be taken with its associated lab. Six lecture hours must be in the same discipline.

[7] Concentrations: Video Game Design and Development, Cloud Computing, Cyber Security, Scientific Computing, and Computer Engineering. A list of courses that satisfy concentration electives is available in the CMPS office.

[8] Must be a course for majors.

CONCENTRATION AREAS & REQUIREMENTS
2024-2025

Computer Engineering

CMPS 315	Introduction to Cybersecurity
CMPS 432	Parallel and Distributed Computing
MATH 302/350	Calculus III or Differential Equations
Elective[1]	6 hours

[1] Chosen from CMPS 497,498,499 EECE 233,240,335,340,355,413,431,434,464,481 STAT 417,454
Note: This concentration requires PHYS 201/207, 202/208 for the physical science lectures.
Note: EECE 335 requires MATH 350 and PHYS 202.

Cloud Computing

CMPS 315	Introduction to Cybersecurity
CMPS 432	Parallel and Distributed Computing
Elective[1,2]	9 hours

[1] Chosen from CMPS 353,358,360,399,420,452,497,498,499 INFX 240,320,321,330,412,443,450,451,499
[2] Chosen from ACCT 201,BLAW 310,425,440 CJUS 303,399,401 ECON 300,320,330
EECE 464 MGMT 303,320,350 STAT 417,454
NOTE: Students cannot receive credit for both ECON 201 and ECON 300

Cyber Security

CMPS 315	Introduction to Cybersecurity
CMPS 432	Parallel and Distributed Computing
Elective[1,2]	9 hours

[1] Chosen from CMPS 358,360,399,420,497,498,499 INFX 320,321,322,412,420,455,499
[2] Chosen from EECE 431,432 BLAW 310,425,440 CJUS 303,399,401,403 SOCI 362 STAT 417,454

Scientific Computing

CMPS 315	Introduction to Cybersecurity
CMPS 432	Parallel and Distributed Computing
MATH 302	Calculus III
MATH 350	Differential Equations
Elective[1,2]	3 hours

[1] Chosen from CMPS 352,415,497,498,499 INFX 499
[2] Chosen from MATH 435,440,450,455,475,481,483,487,491,493,495 STAT 417,454

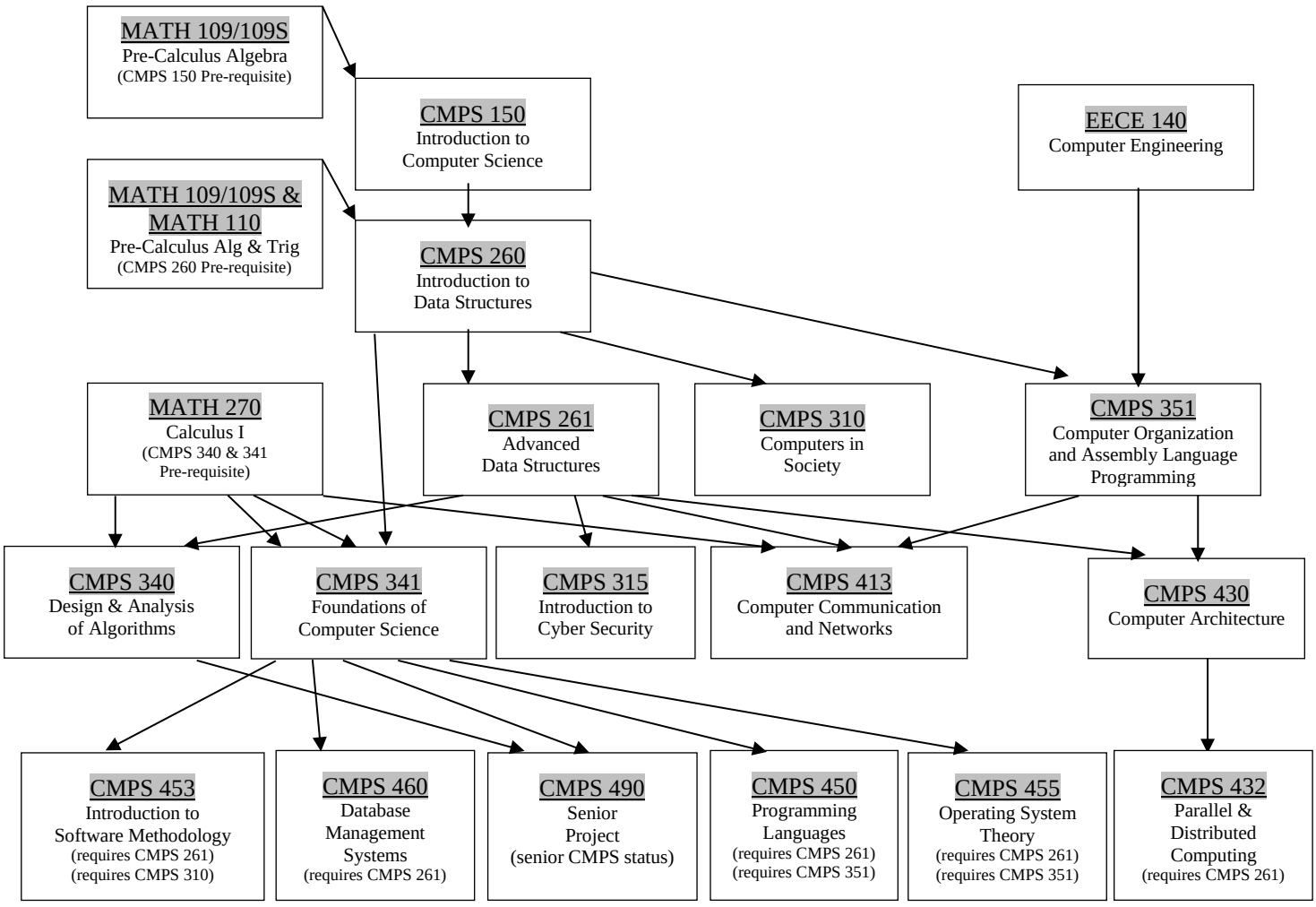
Video Game Design & Development

CMPS 327	Introduction to Video Game Design & Development
CMPS 427	Video Game Design & Development
CMPS 315	Introduction to Cybersecurity
CMPS 432	Parallel and Distributed Computing
Elective[1,2]	3 hours

[1] Chosen from CMPS 358,360,399,415,420,452,497,498,499 INFX 210,499
[2] Chosen from CMCN 365,ENGL 223,325,327,THEA 251,300,VIAR 235,236,335,365,366,465
STAT 417,454
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 422 Machine Learning	CMPS 427 Video Game Design and Development
CMPS 440 Theory of Computation	CMPS 451 Compiler Construction	CMPS 452 Human-Computer Interface Design	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.

LITERATURE ELECTIVES

ENGLISH – Any ENGL course that focuses on literary text. Linguistics, vocabulary development, and language courses do not qualify, e.g., 201, 202, 205, 206, 210, 211, 212.

ARTS ELECTIVES

DANCE – DANC 101, 102, 113, 114

MUSIC – 104 (American Pop) 105 (All Styles), 108 (Jazz), 109 (Broadway),
130 (Diatonic and Chromatic Harmony in Western Music)
321/322 (Voice I/II), 323/324 (Piano Class), 325/326 (Guitar Class),
327/328 (Fiddle I/II), 329 (Button Accordion), 360 (Cajun & Zydeco Music),
364 (Music of the World)

THEATRE – THEA 161, 261

VISUAL ARTS – VIAR 120, 121, 122

DSGN 121 (Survey of Design), 361 (Louisiana Architecture)

INDS 322 (History of Interior Design), 389 (Principles of Interior Design)

HISTORY ELECTIVES

HISTORY – All courses except HIST 490
PHILOSOPHY – PHIL 101, 321, 322

BEHAVIORAL SCIENCES ELECTIVES

ANTHROPOLOGY – Any ANTH course, e.g., 100, 201, 202, 203
CRIMINAL JUSTICE – Any CJUS course, e.g., 101, 203, 205
ECONOMICS – 201, 202, 300
GEOGRAPHY – Any GEOG course, e.g., 103, 104, 380
POLITICAL SCIENCE –Any POLS course, e.g., 110, 220, 360, 370
PSYCHOLOGY – Any PSYC course, e.g., 110, 220, 255, 311, 312, 370
SOCIOLOGY – Any SOCI course, e.g., 100, 241

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 (Academic Skills) courses
2. ADOS, All courses except ADOS 420
3. BSAT 101, 205 (or INFX 205), 206, 306, 311, 321
4. BCOM All courses
5. ENGR 101
6. ITEC 100 & ITEC 101
7. MATH - No course that is a prerequisite to a required course:
   109, 110, 143, 117, 201, 206, 210, 217, 250, 317, 470
8. Any KNEA courses beyond 4 credit hours
9. Any AMUS courses beyond 4 credit hours
10. QMET 251, 252, 450
11. STAT 214
12. UNIV 200
13. HONR 300 courses beyond 4 credit hours

Advising

The Computer Science Program has established an advising structure that is supported by the Computer Science faculty. During the early advising period, you will be assigned to one of the faculty members by your last name. Please check with your advisor to see how they will be handling advising during the early advising session/period.

After the early advising period, students will be advised by seeing their advisor during office hours.

Appointments for Advising

You must make an appointment with your assigned faculty advisor. Please refer to ULink to see who your faculty advisor is. Please check with your advisor to see how they will be handling advising during the early advising session/period.

Schedule of Classes

The Schedule of Classes can be accessed online. Use the ULink/Banner system or consult the Registrar's Web Page (https://registrar.louisiana.edu). Select *Registration*, then *Schedule of Classes*.

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 them.

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 (https://cmix.louisiana.edu/computer-sciences), 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.