

DEPARTMENT OF COMPUTER SCIENCE

Location: 57 Maes Building

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Mission Statement

The department will offer an education that is highly regarded by students, colleagues, industry, and other universities for its quality in teaching and in pure and applied research. We recognize that computer science requires a solid foundation in fundamental principles in order to prepare our graduates for continued learning and adaptation to the increasingly rapid changes likely to occur in information technology. Our department prepares its students for professional employment and graduate education through the study and implementation of the fundamental principles of the theory, abstraction, and software design, while at the same time presenting the ethical and social issues associated with computer science. We believe that the work environment should enable everyone involved to feel a sense of confidence, power, and self-worth that will lead to the joyful pursuit of learning and effective teaching. We believe this environment is best fostered when there is a climate of collegiality and collaboration among the participants. We believe that integrity, honesty and trust are the foundation for success in any enterprise.

Objectives of the Computer Science Undergraduate Programs

- a. Graduates of the Computer Science Program will develop professional skills and the necessary technical knowledge both in breadth and depth that prepare them for employment and advanced study in computer science.
- b. Graduates of the Computer Science Program will have sufficient awareness of the local and global societal impact of technology and of the related legal and ethical issues in computer science to make decisions regarding their personal and professional responsibilities.
- c. Graduates of the Computer Science Program will be aware of ethical and professional responsibilities and the need to engage in life-long learning.
- d. Graduates of the Computer Science Program will have the communication, teamwork, and leadership skills necessary to function productively and professionally.

Computing Facilities

The Computer Science Department has six switched Ethernet laboratories attached to the gigabit-bandwidth campus network infrastructure through which Lamar University is connected to the Internet and World Wide Web. The equipment in the labs is abundant and available to all students. It is comprised of a diverse assortment of hardware and software running on dual-processor AMD 64-bit workstations, Sun workstations, and servers and Intel-based PCs. The department offers image and video processing equipment for multimedia-related classes. Software for advanced courses and research in database, network simulation, symbolic computation, neural networks, continuous

and discrete simulation, artificial intelligence and computer graphics can be readily accessed from servers. Wireless access to the Internet is in place within the Maes Building including the area where computer science offices are housed. The department also has high-performance computing equipment for use with GPGPU programming and gaming.

Academic Policies of the Computer Science Department

In addition to the general university and college standards and policies stated in the Lamar University Catalog, the Computer Science Department enforces the following academic standards and policies:

- a. In most cases, successful completion of a class requires a grade of C or better. There are two exceptions. CS and CIS majors are expected to make a B or better in COSC 1336 Programming Fundamentals I before taking COSC 1337 Programming Fundamentals II. Similarly, a grade of B or better in COSC 1337 Programming Fundamentals II is required before taking COSC 2336 Programming Fundamentals III.
- b. Our majors are expected to be successful in their chosen discipline. Students who have attempted at least 12 hours of computer science courses and whose GPA in such courses drops below 2.00 will be required to declare another major. Students receiving a B.S. in CS or a B.S. in CIS will be required to have an overall GPA of at least 2.25 and a GPA in courses taken from the computer science department of at least 2.25.
- c. Pursuant to university policy, full-time students must take English composition each long semester until the minimum requirements in those areas are satisfied. In addition, full-time students must also take mathematics each long semester until at least twelve (12) hours towards the degree is completed. Students are expected to have taken mathematics at least through pre-calculus or equivalent in high school.
- d. No freshman student will be allowed to take any senior-level computer science course. A student may not register for the same class more than four times. If the student later drops the course or withdraws from school for that semester (receiving a "Q" or "W" for that course), the course counts as one attempt.

Programs

- [Computer Game Development \(B.S.\)](https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-game-development-bs/) (<https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-game-development-bs/>)
- [Computer Game Development Certificate](https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-game-development-certificate/) (<https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-game-development-certificate/>)
- [Computer Information Sciences \(B.S.\)](https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-information-sciences-bs/) (<https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-information-sciences-bs/>)
- [Computer Information Sciences/MBA Track](https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-information-sciences-mba-track/) (<https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-information-sciences-mba-track/>)
- [Computer Science \(B.S.\)](https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-science-bs/) (<https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-science-bs/>)
- [Computer Science \(M.S.\) Non-Thesis](https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-science-ms/) (<https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-science-ms/>)
- [Computer Science \(MS\) Thesis](https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-science-ms-thesis/) (<https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-science-ms-thesis/>)

- Computer Science Minor (<https://catalog.lamar.edu/college-arts-sciences/computer-science/computer-science-minor/>)
- Cybersecurity (B.S.) (<https://catalog.lamar.edu/college-arts-sciences/computer-science/cybersecurity-bs/>)
- Industrial Cybersecurity Certificate (<https://catalog.lamar.edu/college-arts-sciences/computer-science/cybersecurity-certificate/>)