

# Object-Oriented Programming (ITSE 2321)

## CREDIT

3 Semester Credit Hours (2 hours lecture, 2 hours lab)

## MODE OF INSTRUCTION

Face to Face

## PREREQUISITE/CO-REQUISITE:

There are no Prerequisite/Co-requisites for this course.

## COURSE LEVEL

Intermediate

## COURSE DESCRIPTION

Program design with classes, including development, testing, implementation, and documentation.

## END-OF-COURSE OUTCOMES

Design, develop, test, and document programs; and implement classes, methods, and objects.

## LAB RECOMMENDED

## COURSE OBJECTIVES

Upon completion of this course, the student will be able to

- Demonstrate possession of a solid grasp of language-independent programming logic.
- Interpret basic programming concepts including good style and logical thinking.
- List the advantages of writing structured programs.
- Detect the intricacies of decision-making, looping, and array manipulation.
- Articulate the details of file handling.
- Interpret more advanced techniques in array manipulation and modularization.
- Describe concepts and terminology used in object-oriented programming, including classes, objects, multithreading, and animation.

## END-OF-COURSE OUTCOMES

Design, develop, test, and document programs; and implement classes, methods, and objects.

## LAB RECOMMENDED

## INSTRUCTOR CONTACT INFORMATION

Instructor: Abhinav Kamatham

Approved: Initials/date



| DATE    | TOPIC                                              | ASSIGNMENTS/Readings<br>(Due on this Date) |
|---------|----------------------------------------------------|--------------------------------------------|
| Week 1  | Overview & Syllabus                                |                                            |
| Week 2  | Unit 1: An Overview of Computers and Programming   | 9/6                                        |
| Week 3  | Unit 2: Elements of High-Quality Programs          | 9/13                                       |
| Week 4  | Unit 3: Understanding Structure                    | 9/20                                       |
| Week 5  | Unit 4: Making Decisions                           | 9/27                                       |
| Week 6  | Unit 5: Looping                                    | 10/4                                       |
| Week 7  | Unit 6: Arrays                                     | 10/11                                      |
| Week 8  | Midterm Exam                                       | 10/16                                      |
| Week 9  | Unit 7: File Handling and Applications             | 10/18                                      |
| Week 10 | Unit 8: Advanced Data Handling Concepts            | 10/25                                      |
| Week 11 | Unit 9: Advanced Modularization Techniques         | 11/1                                       |
| Week 12 | Unit 10: Object-Oriented Programming               | 11/8                                       |
| Week 13 | Unit 11: More Object-Oriented Programming Concepts | 11/15                                      |

|         |                                                                      |       |
|---------|----------------------------------------------------------------------|-------|
| Week 14 | Thanksgiving break                                                   | 11/22 |
| Week 15 | Unit 12: Event-Driven GUI Programming, Multithreading, and Animation | 12/01 |
| Week 16 | Final Exam                                                           | 12/04 |

## **COURSE EVALUATION**

Final grades will be calculated according to the following criteria:

- Assignments 40%
- Midterm 25%
- Finals 35%

## **GRADE SCALE**

- 90-100 A
- 80-89 B
- 70-79 C
- 60-69 D
- 0-59 F

## **TECHNICAL REQUIREMENTS**

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

## **DISABILITIES STATEMENT**

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email [specialpopulations@lit.edu](mailto:specialpopulations@lit.edu). You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

## **STUDENT CODE OF CONDUCT STATEMENT**

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at [www.lit.edu](http://www.lit.edu). Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

### **ARTIFICIAL INTELLIGENCE STATEMENT**

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses

### **STARFISH**

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

### **ADDITIONAL COURSE POLICIES/INFORMATION**

1. Students should log onto Blackboard and access this course at least 3 times a week to keep on track with assignments. And do the assignments by each due date. There are 11 Units. For each unit, there will be a unit quiz in class, students should take it in person.
2. Students should come to class to take Midterm and Final exams in person.
3. Cheating of any kind will **not** be tolerated.
4. Internet Usage – Students are expected to use proper net etiquette while participating in course emails, assignment submissions, and online discussions.
5. Students should turn assignments in by the posted due date and time. **Late work** is not accepted. All assignments and quizzes stay open the entire term.
6. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.

7. If you need to contact the instructor, you can send an e-mail to [akamatham@lit.edu](mailto:akamatham@lit.edu). Your e-mail will be answered within 48 hours Monday – Thursday and within 72 hours Friday - Sunday.
8. Assignments may NOT be submitted via email.