COSC 1337 – THE OBJECT-ORIENTED PARADIGM

Syllabus

Catalog Description:

Introduction to the concepts of object-oriented programming to students with a background in the procedural paradigm. Topics covered include a review of control structures and data types, the object-oriented programming paradigm, object-oriented design, an overview of programming language principles, and an introduction to software engineering issues.

Text Books:
Recommended:

Java Illuminated
By Anderson, Julie
Edition : 6TH 24
Publisher : JONES+BART
ISBN 13 : 9781284250480

Class Times:

COSC1337.001	Lecture:	MWF 8:00am-8:55am	COB255
Lecture	Monday, Wednesday		
Lab	Friday		

Grading Policy:

Test 1	20%
Ratliff Relay	20%
Final Project	20%
Programs/Labs	40%

Labs will be due at the end of class period for full credit.
Project online submissions will be due by 11:59PM on designated nights unless otherwise stated.
No late submissions will be accepted.

Late Submissions and Tests:
Assignments/Labs/Projects/Presentations will not be accepted after the due date.

Ratliff Relays:
There will also be one group project for the Department of Engineering's Ratliff Relays.

- You will be assigned a team that spans different classes (Capstone, COSC4336, COSC1337) with members of varying levels of experience.
- This project accounts for 20% of your overall grade.

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Homework Policy:
All homework must be self-generated unless otherwise assigned **(i.e NO AI generated work unless assigned specifically)**. The use of Java Libraries outside those taught in class will not be used unless for added functionality beyond the purpose of the programming assignment (such as java.util.ArrayList, java.util.LInkedLIst, java.util.Stack, etc). The purpose of this class is to get the experience and knowledge of how these structures work, rather than how to use libraries that already do the work for you. Use of these libraries before being introduced in class will result in a '0' grade.

Group projects will be submitted individually by each team member to their Canvas portal. Files should all be submitted individually and not in a zip file, as the grading system cannot properly display zip file contents.

Academic Dishonesty: You are expected to do your own work. You may assist each other with general concepts, but direct assistance with a particular assignment or any attempts to gain an unfair academic advantage will not be tolerated. Cheating is considered a serious academic offense both by the department and the University. It may result in a failing grade from this course for all parties involved. The instructor reserves the right to ask you to explain any assignment that you turn in to judge if the work is actually yours. AI generated work will not be accepted.

Use of Artificial Intelligence (AI)

You can use AI such as Grok, ChatGPT, etc and websites such as Reddit, W3 Schools, etc. to find code examples for solutions that you "hit a brick wall" when trying to solve. When doing so, you MUST do the following for credit:

1. Comment above methods that you import (copy) from outside sources with the issue you were having, a description of this solution, and the source of the solution. If AI generated, include the prompt in the comments

2. Comment on each line of code in the imported method so I can see you understand what is happening (do not just have AI generate the comments. I may have you appear personally to explain how a method works and what individual lines do)

3. Try to rewrite the code into your own style with level-appropriate coding (code that another person at your programming level can easily interpret)

Failure to follow the above rules will result in your work considered as "plagiarism" and receive a '0'. Repeated plagiarism may result in University disciplinary action.

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Contact Information:

Danny Morris
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Phone: 903-566-7403
E-mail: danielmorris@uttyler.edu
Office Hours: MW 9:00am – 12:00noon, 1:00pm - 3:45pm
TTH, 1:00pm-3:15pm
And by Appointment

Course Topics:

Topic	Hours
Review Java programming fundamental, data types	3
Classes	6
Inheritance & Polymorphism	6
File IO & Exceptions	6
Computer Graphics	9
Game logic	9

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Course Timeline: (TENTATIVE)

Course Time Room	COSC1337 Section 001: MWF 8:00am-8:55am COB255
8/24/2026	Intro, Hello World, Procedural vs Object Oriented Design (C vs Java), Intro to Ratliff Relay/Team Assignment
8/31/2026	Classes (The heart of Object-Oriented Design).
9/7/2026	**(No Class Monday – Labor Day)** File Input/Output, Exceptions Going on an Adventure… Map
9/14/2026	Inheritance, Polymorphism
9/21/2026	Abstract Classes, Interfaces **Test 1**
9/28/2026	Graphics using Java Swing
10/5/2026	Graphics using Java Swing
10/12/2026	Game Time - Putting it all Together - Design map, set rules, **Ratliff Relays Competition**
10/19/2026	Map Game – Move around Map
10/26/2026	Map Game – Add characters to game
11/2/2026	Map Game – Add items to game
11/9/026	Map Game – More on Items
11/16/2026	Map Game – Combat
11/23/2026	**Thanksgiving Break**
11/30/2026	Map Game – How to Win
12/7/2026	**Final Project Due**

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Course Objectives:

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1. Choose the appropriate data structure for modeling a given problem.
2. Design, code, test, and debug simple event-driven programs that respond to user events.
3. Explore data input/output with files
4. Explain exception conditions raised during execution.
5. Demonstrate different forms of binding, visibility, scoping, and lifetime management.
6. Defend the importance of abstractions, especially with respect to programming-in the-large.
7. Design, implement, test, and debug simple programs in an object-oriented programming language.
8. Design, implement, and test the implementation of “is-a” relationships among objects using a class hierarchy and inheritance.
9. Explain the relationship between the static structure of the class and the dynamic structure of the instances of the class.
10. Describe how the class mechanism supports encapsulation and information hiding.
11. Explore computer graphics and graphical user interfaces

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Additional Policies:

Students Rights and Responsibilities
To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html

Grade Replacement/Forgiveness
If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the 12th day of class. Failure to do so will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates will receive grade forgiveness (grade replacement) for only three course repeats; graduates, for two course repeats during his/her career at UT Tyler.

State-Mandated Course Drop Policy
Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the 12th day of class (See Schedule of Classes for the specific date).
Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Registrar's Office and must be accompanied by documentation of the extenuating circumstance. Please contact the Registrar's Office if you have any questions.

Disability Services
If you have a disability, including a learning disability, for which you request disability support services/accommodation(s), please contact Ida MacDonald in the Disability Services office so that the appropriate arrangements may be made. In accordance with federal law, a student requesting disability services/accommodation(s) must provide appropriate documentation of his/her disability to the Disability Services counselor. In order to assure approved services the first week of class, diagnostic, prognostic, and prescriptive information should be received 30 days prior to the beginning of the semester services are requested. For more information, call or visit Disability Services located in the University Center, Room 3150. The telephone number is (903) 566-7079. Additional information may also be obtained at the following UT Tyler Web address: http://www.uttyler.edu/disabilityservices.

Student Absence due to Religious Observance
Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities
If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:
It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation:

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do Not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.