COSC 1337.001 – Object Oriented Paradigm (Required for BSCS, and BSIT) Spring 2025 Course Syllabus

Schedule:
Lecture: Monday, Wednesday, and Friday 8:00AM-8:55AM in COB 207

Catalog Description:
COSC 1337 introduces 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, simple analysis of algorithms, basic searching and sorting techniques, and an introduction to software engineering issues.

Required Textbook:
Julie Anderson & Herve J. Franceschi, Navigate 2 Advantage Access for Java Illuminated, 5th Edition
Jones & Bartlett Learning ISBN# 9781284141108

Contact Information:
Office: COB 315.10
E-mail: dalger@uttyler.edu
Web Site: http://www.uttyler.edu/cs/dalger.php
Office Hours: Monday, Wednesday, and Friday   10:10-11:10AM
                Tuesday, Thursday   9:30-10:30AM
                or **by appointment**

Grading Policy:

Quizzes	15%
Tests (Total)	45%
Programming Assignments	20%
Lab Assignments	20%

Grading Rubric:

Weighted Total	Letter Grade
>= 90	A
>= 80 and < 90	B
>= 70 and < 80	C
>= 60 and < 70	D
< 60	F

Course Objectives:
1. Choose the appropriate data structure for modeling a given problem.
2. Determine when a recursive solution is appropriate for a problem.
3. Design, code, test, and debug simple event-driven programs that respond to user events.
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 iterators access the elements of a container.
11. Describe how the class mechanism supports encapsulation and information hiding.

Topics:
1. Review of object-oriented programming: methodology, design; software tools.
2. Principles of object-oriented programming: Inheritance; encapsulation; polymorphism;
3. Object-oriented design: Concept of design patterns and the use of APIs; modeling tools such as UML.
4. Introduction to interactive programming, basic graphics concepts, and techniques for drawing shapes.
5. Explore services provided by the String, Random, Math classes, and the standard class library classes.
6. Arrays; Arrays of objects; Variable length parameter lists
7. Event-driven programming: Event-handling methods; event propagation; exception handling
8. Establish key issues to the design of object-oriented software.
9. Software engineering issues.

Missed Labs, Quizzes, Programming Assignments, and Tests:
Labs and Programming Assignments MAY be graded early. If they are graded early, students may resubmit labs and programming assignments for full credit before the due date. Programming assignments will be accepted as late if they are submitted within one week of the due date (the last programming assignment may be an exception). Programming assignments will have 50% deducted from their score if they are late. Labs will be due the class day after they are assigned before midnight (additional time may be given). Programs will be due before midnight on their due dates. Quizzes will be due the class day after they are assigned BEFORE CLASS. Tests must be taken when scheduled. Labs, quizzes, exams, and any extra credit assignments can NOT be submitted late. No makeup tests, quizzes or exams will be given; any missed Labs, Quizzes, Programming Assignments and Tests will get a grade of zero.

Programming Software, Tutorials, and Help:
For programming in class and for lab exercises we will be using the Eclipse compiler installed in the class computers. If you wish to practice at home, we recommend use of the free Eclipse software. Graduate assistants are available for help with learning the course material. The instructor maintains office hours and you can come by for additional help with the course material.

IMPORANT NOTE: ANYTHING you turn in for this class **must** not use any functionality of Java that we have not covered in class. This includes but is not limited to anything outside of StringBuilder, String.split, and any code involving throwing or catching Exceptions before we cover it. **Any** submission that includes **any** features not covered in class or the lecture notes will be **severely** penalized.

Tutoring Sessions Schedule:
The schedule will be posted approximately three weeks into the semester.

Plagiarism:
Plagiarism will result in disciplinary actions. To spare yourself accusations of plagiarism review the following statements: (Adapted from SFSU Department of Computer Science cheating and plagiarism policy)

Plagiarism occurs when a student:
- submits the work of another student representing it a their own.
- allows another student to replicate or submit their work.
- submits code or portions of code with modifications in an effort to make it look original.
- fails to inform the instructor of collaborating with others on code or projects.
- posts assignments on internet sites for solutions.
- submits code found online and modified without proper citation.
- submits code found online with and used verbatim regardless of proper citation.

Plagiarism does not occur when a student
- has permission to collaborate on a program or project and list all collaborators.
- receives guidance from instructors or teaching assistants
- help with errors or provide tips on programming that will help others in the learning process.
- discuss requirements of an assignment and strategies for implementation
- inclusion of code copied form another source when properly cited and specifically allowed by instructor

University Policies:
The following pages may be revised without notice. These policies can be found on UT Tyler's website:
http://www.uttyler.edu/academicaffairs/files/syllabuspolicy.pdf

UT Tyler Honor Code – Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Student Standards of Academic Conduct – Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

"Cheating" includes, but is not limited to:
- copying from another student's test paper or homework assignment;
- using, during a test, materials not authorized by the person giving the test;
- failure to comply with instructions given by the person administering the test;
- possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test
- using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;

- collaborating with or seeking aid from another student during a test or other assignment without authority;
- discussing the contents of an examination with another student who will take the examination;
- divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructors have designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
- substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
- paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
- falsifying any academic work offered for credit;
- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another person, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
- misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

Unless otherwise specified, all work submitted for a grade must be completed by yourself. You are not to submit another person's work and claim it as your own. Plagiarism and/or collusion will result in disciplinary actions. To spare yourself accusations of plagiarism:

     1. Do not show another student a copy of your work before it has been graded. The penalties for permitting your work to be copied are the same as the penalties for copying someone else's work.

     2. Do not leave printouts of your work where other students may pick them up.

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/rightsresponsibilities.php

Campus Carry – We respect the right and privacy of students 21 and over who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at
http://www.uttyler.edu/about/campus-carry/index.

UT Tyler a Tobacco-Free University – All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit
www.uttyler.edu/tobacco-free.

Grade Replacement/Forgiveness and Census Date Policies – Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. (For Spring, the Census Date is Jan. 30.) Grade Replacement Contracts are available in the Enrollment Services Center or at http://www.uttyler.edu/registrar. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract. The Census Date (Jan. 30th) is the deadline for many forms and enrollment actions of which students need to be aware. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date) • Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

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 census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

Student Accessibility and Resources – In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychiatric disabilities. If you have a disability, including non-visible disabilities such as chronic diseases, learning disabilities, head injury, PTSD or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources (SAR) office and schedule an interview with the Accessibility Case Manager/ADA Coordinator, Cynthia Lowery Staples. If you are unsure if the above criteria apply to you, but have questions or concerns please contact the SAR office. For more information or to set up an appointment please visit the SAR office located in the University Center, Room 3150 or call 903.566.7079. You may also send an email to cstaples@uttyler.edu.

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.

UT Tyler Resources for Students
UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu
UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu
The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
UT Tyler Counseling Center (903.566.7254)