

**COURSE:** CIS 249 Advanced Object Oriented Programming  
**CREDIT:** 3 semester hours

**INSTRUCTOR:** Roger Morris  
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**SCHOOL:** Southeast Technical Institute  
**ADDRESS:** 2205 N. Career Avenue, Sioux Falls, SD 57107

**DESCRIPTION:** This course is designed to provide students with the knowledge necessary to understand, write and debug object-oriented applications. Topics covered include Object Oriented Application Development (OOAD), UML (Unified Modeling Language), and Web server support for general purpose programming languages. Accessing DBMS (Database Management Systems) using SQL statements imbedded in middle tier classes with HTML web pages utilized for the input and output to web applications will also be covered.

**PREREQUISITES:** CIS149 Intro to Java or equivalent.

**TEXT:** "Murach's beginning Java with Eclipse", by Joel Murach. ISBN: 978-1-890774-89-9 Publisher: Mike Murach & Associates, Inc.

**COMPETENCIES:** The student should demonstrate the following competencies upon successful completion of this course:

- Recognize and define certain words, terms, expressions, and phrases associated with object oriented programming (OOP).
- Analyze a problem and design a viable OOP software solution based on the analysis.
- Implement an established software development process (design, implement, document and test).
- Design and implement web-based, multi-tier OOP applications.

### **BASIS FOR EVALUATION:**

Exams & Quizzes (60% of grade)- Four exams will be given after major topics. Exams will consist of open book performance tests including coding, documenting and debugging Java programs. Make-up exams are not available unless mutually agreed to and scheduled BEFORE the related test date.

Programming Problems/Lab Exercises/Miscellaneous Assignments (40% of grade)- All assignments have a due date posted on STInet. No assignments will be accepted after the due date unless arrangements have been made with your instructor on or before the due date.

Regular class attendance is expected and non-excused absences will result in substantial reduction in grades. Please refer to the **ATTENDANCE POLICY** section of this syllabus for additional information.

## GRADING

Grades will be earned on a point system, and will be determined by using the following formula:

$$(\text{Points Earned} - \text{Deductions}) / \text{Points Possible}$$

The grading scale is as follows:

A+ = 99 to 100	A = 94 to 98.99	A- = 89.5 to 93.99
B+ = 89 to 89.49	B = 84 to 88.99	B- = 79.5 to 83.99
C+ = 79 to 79.49	C = 74 to 78.99	C- = 69.5 to 73.99
D = 63 to 69.49	D- = 59.5 to 62.99	F = 0 to 59.49

The +/- designators are not used to calculate Grade Point Average (GPA) on STI transcripts

**ATTENDANCE POLICY:** Punctuality and good attendance are important. Being tardy or absent has a negative effect on the learning environment and ultimately the employment environment. To better prepare you for employment, this course has expectations that emulate those of a normal job. Students are responsible for monitoring their attendance (posted on STINet).

**Tardiness** - Tardiness begins the minute class starts, so plan to be on time. We expect that students will have their work done before leaving a lab early.

**Absences** – It is expected that you will notify your instructor if you will be absent for the day. Any assignments due the day of an absence is still due that day.

## STUDENT RESPONSIBILITY

It is the student's responsibility to be an active participant in class. Integrity and professional work ethics will be demonstrated by the instructor and required from the students. Please refer to your Student Handbook for more details. Cheating and plagiarism will result in a zero for that work. Further unethical behavior will result in a failing grade for the course.

*Violations of safety to self and others and/or violation of safe operating practices of equipment may result in: the reduction or loss of your daily grade; removal from class; and/or other disciplinary action.*

*The instructors and the faculty members in this course will act with integrity and strive to engage in equitable verbal and nonverbal behavior with respect to differences arising from age, gender, race, handicapping conditions and religion. If you have special needs as addressed by the American with Disabilities Act and need course materials in alternative formats, notify your instructor immediately. Reasonable efforts will be made to accommodate your special needs.*

## **STUDENT SUCCESS**

Student success is important to our faculty, and all faculty are involved in assessing learning. Upon completion of a degree, Southeast graduates will have demonstrated competence in the following areas:

Science and Technology : Technical competence including knowledge of technology and/or scientific principles as these apply to programs.

Problem Solving & Critical Thinking : The ability to select and use various approaches to solve a wide variety of problems – scientific, mathematical, social and personal. Graduates will also be able to evaluate information from a variety of perspectives, analyze data, and make appropriate judgments.

Communication : The ability to communicate effectively in several forms – oral, written, nonverbal and interpersonal. Graduates will also demonstrate knowledge of how to manage and access information.

Professionalism : Strong work ethic, including responsible attendance; skill in teamwork and collaboration, as well as an ability to work with others, respecting diversity; ability to adapt to change; commitment to lifelong learning; adherence to professional standards; and positive self-esteem and integrity.