SOUTHEAST Technical College

Southeast Tech · · Computer Information Systems

Advanced Application Development

CIS-248 30 O

Summer Term 2021-2022 School Year   Section 30 O   3.00 Credits   05/16/2022 to 07/22/2022   Modified 05/16/2022

🕐 Meeting Times and Location

ONLINE

👤 Contact Information

Instructor: Ms. Anju Wadhwa

Email: anju.wadhwa@southeasttech.edu
Phone: 703-653-4526

Office Hours

By appointment

Send me an email with your preferred day and time to meet.

🖥 Course Description

Provides experience in computer information project management and development. The student or a small group of students working together will design and develop a complete information systems project from start to finish. This will include utilizing the complete system development life cycle, with emphasis on the analysis and design phases of development. Students will be exposed to concepts such as project analysis, data flow diagrams, selection of design tools, creation of project schedules, project budgeting, prototyping, system proposals, user feedback, graphical user interface (GUI) design, and testing/quality assurance procedures. Prerequisite: CIS 130, plus a minimum of 4 credits in one programming language.

📊 Outcomes

The student should have the following skills upon successful completion of this course:

- An understanding of the Agile Software Development approach and how to apply it to the planning, design, and implementation of a software development project
- An understanding of project planning and project selection activities
- An understanding of user requirements as they relate to an IT project and how to determine and document the requirements
- The ability to create Progress Reports and Time Sheets for planning and tracking progress on projects
- The ability to create Data Flow Diagrams (DFDs), Entity Relationship Diagrams (ERDs) and Activity Diagrams and to utilize them in the project design process
- The ability to fully develop the software for a computer application using their choice of programming language
- A basic understanding of software application testing and implementation procedures

◎ Additional Outcomes

📘 Course Materials

Essentials of System Analysis and Design

Author: Valacich, George, and Hoffer
Publisher: Pearson
Edition: 6th edition
ISBN: ISBN-13: 9780137612420
Optional

It's okay to have an online copy of this week. Remember: Textbook is not mandatory.

📋 Deliverables

Information System/Prototype:
A working system is expected to be at least prototyped (preferably completed) by the end of the semester. The capstone project grade will include measures of the level of difficulty and professionalism of the design/development effort, and the working project prototype/application.

Final Presentation:
The presentation on the project should be a PowerPoint presentation and a video product demonstration.

Information System Report:
This report will consist of 4 deliverables due every three weeks during the semester. The content for each deliverable will be provided later. The final project report will include all the deliverables, an introduction, conclusion, and all the connecting parts.

Weekly Time Sheets:
Weekly time sheets must track the time utilized on each project activity each week along with the total accumulated time spent on the project.

Weekly Progress Reports:
Each progress report should consist of an in class presentation of the progress made during the previous week. It should include project status in addition to challenges and problems.

Writing Across the Curriculum Memo:
A self-assessment memo to your instructor describing your project, your progress results, and future applications/reflections on what this project experience taught you, the skills learned, how you feel about what you accomplished and how you think the skills learned apply in the workplace or future career.

✔ Evaluation Procedures and Grading

Breakdown

Basis of Evaluation will be as follows:

Grade	Range	Notes
A	90% and above	
B	80 - 89.5%	
C	70 -79.5%	
D	60 - 69.5%	
F	59.5% and below	

Criteria

The grade break-down in terms of weights is as follows:

Type	Weight	Topic	Notes
Information System/Prototype	30%		
Final Presentation	15%		
Interim project updates	15%		
Final Project Report	10%		
Weekly timesheets	10%		
Weekly progress reports	15%		
Writing Across the Curriculum Memo	5%		

✳ Course Expectations

Timing of assignments

Late homework will be accepted with penalty, with prior approval of instructor obtained BEFORE the deadline. Makeup for exams and quizzes will not be allowed for ANY reason, including but not limited to: work, illness, and technical difficulties. It is the student's responsibility to ensure adequate time is allowed to complete the assignments and other assessments on time.

Instructional Methods

Course will include PDF lectures, web-based activities, and a semester long project which involves the creation of a simple web-based application or system prototype. All course information and assignments will be posted to myTech, and it is the student's responsibility to stay current with course materials.

Extra credit

It is at the discretion of the instructor to give extra credit throughout the course.

▤ Additional Items

📅 Course Outline

🏛 Institutional Policies

Course Subject to Change

The syllabus is a statement of intent and schedule of topics, activities, assessments, and requirements as well as an overall road map to ensure students will achieve both the course learning objectives and the program-level learning objectives.

The scheduled educational activities are subject to change with reasonable advance notice to students by either the instructor or academic administration. The grading and attendance policies are not subject to change once posted.

Students wishing to appeal changes to a course syllabus must first do so in writing to their instructor. If a successful resolution is not achieved after submitting the written appeal, the student has the option to file a written appeal to the appropriate Associate Dean of Curriculum and Instruction or Dean of Curriculum and Instruction. If the second level appeal does not result in a resolution, the student can submit a final appeal to the Vice President of Academic Affairs. The review and final decision of the Vice President of Academic Affairs is final and not subject to appeal.

Attendance

Administrative Withdraw for Non-Attendance

Students are expected to attend all sessions of courses for which they are enrolled. Absences do not excuse the student from meeting course requirements. Each instructor will evaluate the student's progress to determine how to handle outstanding assignments and assessments. Students who have a record of zero attendance for fourteen (14) calendar days will be administratively withdrawn from the course(s) the absence is occurring, resulting in a grade of "W" for the course. Students who receive financial aid may have their financial aid status affected. More information is located in the Southeast Tech Catalog (http://catalog.southeasttech.edu/):

Student Learning Outcomes

Student success is important to Southeast Tech faculty, and all faculty are involved in assessing student learning. Upon graduation, Southeast students will have competence in the following four common learning outcomes:

Technical Skills: Students will be able to explain industry-relevant concepts (knowledge) and demonstrate industry-relevant technical skills (performance).

Communication: Students will be able to define the purpose of the communication; organize and structure the communication; provide supporting material; demonstrate precision of language; and professionally deliver and format the communication.

Problem Solving & Critical Thinking: Students will be able to define the problem; analyze the problem; generate solutions; evaluate solutions; and select the best solution.

Professionalism: Students will be able to demonstrate positive work ethic; collaborate as part of a team; adapt to change; adhere to professional standards; and model integrity and ethics.

Student Conduct, Cheating and Plagiarism

Students attending Southeast Technical College are expected to follow policies and requirements in the Southeast Technical College Student Handbook: STC Student Handbook (https://catalog.southeasttech.edu/content.php?catoid=27&navoid=18977). In addition, some departments have academic handbooks for their areas that outline expected student conduct.

Southeast policies authorize the Vice President of Academic Affairs to suspend or terminate any student from the college for misconduct as outlined in the rules of this policy. The following student misconduct shall constitute grounds for student discipline, suspension, or termination when such activity occurs on school grounds, in the online course environment or during an educational function under the auspices of the school board: acts of dishonesty, including cheating and plagiarism or other forms of dishonesty relating to academic achievement.

Test Proctoring

The Southeast Testing Center offers test proctoring located in the Wood Center Building, Room 103. Online instructors will communicate details regarding required test proctoring and how to sign up to take these assessments. Testing Center contact information: 605.367.6014 or testing@southeasttech.edu

Safety

Violation of safety to self and others and/or violations of safe operating practices of equipment may result in the reduction or loss of a daily grade, removal from class, and/or other disciplinary action.

Accessibility Services

It is the policy and practice of Southeast Technical College to create inclusive and accessible learning environments consistent with federal and state laws. In accordance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the Americans with Disabilities Act Amendment Act of 2008, Southeast Technical College ensures that no student with a disability will be discriminated against or denied access to participation in, or benefits of, programs, services and activities. If you are a student with a documented disability, think you may have a disability, or have a temporary health condition that

requires accommodations, please visit the Accessibility Services (https://www.southeasttech.edu/student-life/accessibility-services.php) website, call 605-367-5727, or email access@southeasttech.edu (mailto:access@southeasttech.edu). All students are encouraged to discuss access-related needs with their instructors and Accessibility Services as soon as possible.

ADA Statement

The instructor in this course will act with integrity and strive to engage in equitable verbal and nonverbal behavior with respect to differences from age, gender, race, handicapping conditions, and religion. Students with special needs as addressed by the Americans with Disabilities Act that need course materials in alternative formats should notify instructor immediately. Reasonable efforts will be made to accommodate those special needs.

Freedom of Speech

Southeast Tech strives to create an environment in which diverse opinions can be expressed and heard. Students have the right to peacefully express their views and opinions, regardless of whether others may disagree, but not in such a way as to interfere with the rights of others or the operation of the college. Views expressed should not violate any of Southeast Tech policies or core values.

Southeast Technical College students are both citizens and members of the Southeast Tech community. Students should enjoy the same freedom of speech, peaceful assembly, and right to petition that other citizens enjoy and should abide by the obligations and expectations as members of the Southeast Tech community.

Notice of Nondiscriminatory Policy

Southeast Tech is committed to a policy of equal opportunity for all in every aspect of its operations. Southeast Tech does not discriminate on the basis of race, color, creed, religion, age, gender (including pregnancy), sexual orientation, disability, national origin or ancestry, military/veteran status, genetic information, or any other category protected by law in its educational programs, admissions policies, employment policies, financial aid, or other institute-administered programs. Click this link for more information: Non-Discriminatory Policy and Contact Information (https://catalog.southeasttech.edu/content.php?catoid=27&navoid=18512)

Title IX/Sexual Misconduct/Sexual Assault/Sexual Offense

Southeast Tech is committed to providing a learning and working environment free of unlawful harassment based on an individual's race, color, religion, creed, ancestry, national origin, gender, sexual orientation, disability, age, protected military/veteran status, genetic information or any other basis protected by law. Concerns may be reported directly to this individual in person, by calling 605-367-4670, or by emailing Brett.Arenz@k12.sd.us. Individuals with immediate concerns should call campus security at 605-941-9003. For more information, click this link: Title IX in Student Catalog (https://catalog.southeasttech.edu/content.php?catoid=27&navoid=19026&hl=%22Title+IX%22&returnto=search)

Student Right-to-Know/Campus Security Act

Southeast Tech is required under Public Law 101-542 to encourage students to report all crimes (murder, rape, forcible or non-forcible sex offenses, robbery, aggravated assault, burglary, motor vehicle and other thefts or crimes) which occur on the Southeast Tech Campus to the local law enforcement offices and to the Southeast Tech Student Success Center or campus security. For more information on Student Right to Know/Campus Security Act, click this link: Student Right to Know - Campus Security Act (https://catalog.southeasttech.edu/content.php?catoid=27&navoid=19026&hl=%22Student+Right+to+Know%22&returnto=search)

Family Educational Rights & Privacy Act

FERPA stands for the Family Educational Rights and Privacy Act of 1974. It is a federal law governing the privacy and handling of educational records and giving specific rights to students. You can find more information about the law at http://www.ed.gov/policy/gen/guid/fpco/ferpa/students.html (http://www.ed.gov/policy/gen/guid/fpco/ferpa/students.html)

Student Communications

Southeast Tech's student email accounts will be used as Southeast Tech's official means of communications with students. Southeast Tech students should also use the myTech Student and Campus Life tabs for information regarding important upcoming events and required dates for fee payment, etc. The Student and Campus Life tabs will also inform students about job

opportunities, scholarship information, and other important announcements.

Academic Resource Center (ARC)

Your success is important to us! In addition to meeting with your instructor for academic assistance, STC students are encouraged to use the free tutoring and other support services in the Academic Resource Center (ARC) to reinforce understanding of course concepts and improve performance in courses. ARC offers one-on-one tutoring for course assignments or skill building (e.g., test-taking strategies, note-taking, memorization, etc.) with faculty or peer tutors. Learn more about these services by visiting the ARC page found in the Student tab of myTech.

Student Mental Health

Mental health and overall well-being are significant predictors of academic success. As such it is essential that during your college experience you develop the skills and optimize resources effectively to navigate stress, anxiety, depression, and other mental health concerns. Please familiarize yourself with the range of resources Southeast Tech provides and seek out support for mental health concerns as needed. Counseling services are available in the Sullivan Health Science Center administrative office Room 200 or by calling 605-367-7466.

Sexual Misconduct

Southeast Tech is committed to providing a learning and working environment that emphasizes the dignity and worth of every member of its community, free from discriminatory conduct. Sexual harassment in any form or context is contrary to this commitment and will not be tolerated. Sexual harassment subverts the mission and the work of Southeast Tech and can threaten the career, educational experience, and well-being of students, faculty, and staff.

Southeast Tech recognizes that sexual harassment includes harassment based on gender, sexual orientation, gender identity, or gender expression and may occur regardless of the formal position or status of each person involved. Sexual harassment is especially offensive, however, when it occurs in relationship between an instructor and student or between supervisor and subordinate. In those situations, sexual harassment exploits unfairly the power inherent in the position of the faculty member or supervisor.

Sexual harassment also constitutes a form of sexual discrimination that is illegal under Title VII of the Civil Rights Act of 1964, Title IX of the Elementary/Secondary Education Act of 1972, as amended, and state law. Southeast Tech also recognizes that sexual assault, domestic violence, dating violence, and stalking may also be considered sexual harassment.

Students have the right to be free of sexual misconduct while pursuing their education at Southeast Tech which would include participating in any off-campus activity such as internships, clinical experiences, and preceptor experiences.

Students should immediately report any form of sexual misconduct to their instructor or the designated contact at Southeast Tech.

Course Recording Statement

Delivery of some courses at STC allows flexible participation options for students in time and location. Courses may be made available to properly enrolled students who are not physically in the classroom, and/or a time delayed recording made available to all properly enrolled students. In addition to instructional content, remote delivery may include capture of all classroom audio and visual happenings during designated class times, including that of students who may be part of the class, but who are not physically in the classroom. By remaining in classes capturing audio and visual happenings, you are agreeing to this statement.