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# Advanced Application Development

## CIS-248 1C H

Spring Term 2020-2021 School Year Section 1C H 3.00 Credits 01/11/2021 to 05/07/2021 Modified 01/13/2021

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### Meeting Times and Location

Wednesday, 1:00 PM - 3:15 PM, Technology Center 118

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### Contact Information

#### Instructor: Ms. Anju Wadhwa

Email: [anju.wadhwa@southeasttech.edu](mailto:anju.wadhwa@southeasttech.edu)

Phone: 7036534526

**The best way to contact me is to send me an email. I will respond within 24 hours.**

#### Office Hours

By appointment

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### 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. Prerequisites: CIS 130, plus a minimum of 4 credits in one programming language.

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### 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, selection, design and implementation of a software development project
- An understanding of project planning and project selection activities including a general understanding of when an organization should develop an IT application vs. when it should acquire the application
- 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 UML Class 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 languages & IDE
- A basic understanding of software application testing and implementation procedures

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### Additional Outcomes

### Essentials of System Analysis & Design

**Author:** Valacich, George, and Hoffer

**Publisher:** Pearson

**Edition:** 6th edition

**ISBN:** ISBN-13: 978-0133546231

**Optional**

**Availability:** Amazon

ISBN-10: 0133546233

Note: This is a recommended text and not available in the campus bookstore.

## Deliverables

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### Project: 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.

You will do this with your partner/group.

### Project: Final Presentation

The presentation on the project should be a PowerPoint presentation delivered in class with your partner/group and a product demonstration.

### Project: Information Systems 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.

You will do this with your partner/group.

### Homework: Individual 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.

### Project: Weekly project 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.

You will do this with your partner/group.

### Homework: Individual: 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

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### Criteria

The grading scale is as follows:

|                   |                    |                    |
|-------------------|--------------------|--------------------|
| A = 92.5 to 100   | A- = 89.5 to 92.49 | B+ = 86.5 to 89.49 |
| B = 82.5 to 86.49 | B- = 79.5 to 82.49 | C+ = 76.5 to 79.49 |
| C = 72.5 to 76.49 | C- = 69.5 to 72.49 | D+ = 66.5 to 69.49 |
| D = 62.5 to 66.49 | D- = 59.5 to 62.49 | F = 0 to 59.49     |

| Type        | Weight | Topic                              | Notes   |
|-------------|--------|------------------------------------|---|
| Project     | 30%    | Information System/Prototype       |   |
| Project     | 10%    | Final Presentation                 |   |
| Project     | 20%    | Information Systems Report         | This report will comprise of 4 deliverables graded at 5% each.                                    |
| Project     | 5%     | Final Project Report               |   |
| Project     | 15%    | Weekly progress reports            |   |
| Homework    | 5%     | Individual time sheets             |   |
| Online Test | 5%     | Quiz 1                             | This online quiz will be based on lectures and materials provided. You will complete it in class. |
| Homework    | 5%     | Writing Across the Curriculum Memo |   |
| Online Test | 5%     | Quiz 2                             | This online quiz will be based on lectures and materials provided. You will complete it in class. |

## \* Course Expectations

### Late work

Late work will be accepted with penalty, with prior approval (before assignment deadline) from instructor. Makeup for quizzes and exams will not be allowed for any reason. It is the student's responsibility to ensure adequate time is allowed to complete assignments and other assessments on time.

### INSTRUCTIONAL METHODS

Class time will include lecture, group activities and discussion, assessments, and projects. PowerPoint presentations for each chapter will be available to students on STInet. All course information and assignments will be posted to STInet, and it is the student's responsibility to stay current with course materials.

### Grading for group work

While all members typically receive the same grade for each deliverable, it will NOT be the case if the distribution of workload and contribution vary greatly across team members.

### Ask questions

Do not hesitate to email me any time for help. Remember...no questions are bad questions.

### Check your email

Please check your email at least once a day. Announcements and notices will be sent via email and STI net.

## Back-up your work

Make sure to take back-up copies of your work. Students lose their work all the time and don't have back-ups. Also, save your work periodically as you complete your assignments.

## Attendance and class participation

Students are expected to attend each class, to complete any required preparatory work, and to participate actively in lectures, discussions, and exercises. As members of the academic community, all students are expected to contribute regardless of their proficiency with the subject matter. Students should try their best to avoid late arrival to class, as late arrival is disruptive to both the instructor and the other students. Students are expected to make prior arrangements with the instructor if they know in advance that they will miss any class and to consult with the instructor as soon as possible if they miss any class without prior notice.

## Additional Items

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### Camera and microphone policy

FOR THOSE JOINING THE CLASS FROM HOME

While it is not mandatory to keep your camera on during the lecture, I prefer for students to have their cameras on. It is much easier to have an interactive classroom if cameras are on. It allows me to check if you are engaged, following along, or confused. It also leads to better accountability of learning. It can be draining for an instructor to talk to a collection of black boxes.

You **MUST** have your cameras on when you are speaking to me, taking a test, or presenting. It is **MANDATORY** to have cameras on under these conditions. If for some reason you cannot keep your camera on, please let me know separately in advance by email.

Microphones must be kept on mute unless you are asking/answering a question or presenting.

## Course Outline

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## Institutional Policies

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### Course Subject to Change

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

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](#)

[\(http://catalog.southeasttech.edu/\)](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:

**Technology:** 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 rules, regulations, policies and requirements in the Southeast Technical College Student Handbook: [STC Student Handbook \(https://catalog.southeasttech.edu/content.php?catoid=26&navoid=18251\)](https://catalog.southeasttech.edu/content.php?catoid=26&navoid=18251). In addition, departments such as Health and Human Services, have academic handbooks for their areas that outline expected student conduct. [Academic Handbook for Health and Human Services Programs \(https://catalog.southeasttech.edu/content.php?catoid=26&navoid=18250\)](https://catalog.southeasttech.edu/content.php?catoid=26&navoid=18250). Refer to your program handbook for further details.

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. Parking is located just north of the building. Online instructors will communicate details regarding required test proctoring and how to sign up to take these assessments. Contact the Testing Center at 605.367.6014 or email [testing@southeasttech.edu](mailto:testing@southeasttech.edu) for more information.

## Coronavirus Face Masks, Coverings and Distancing

Southeast Tech is a face mask-required institution. Southeast Tech is committed to providing a safe environment for all members of our community. To honor that commitment, the health and safety of our students, faculty, staff and guests must be a top priority. For all Coronavirus updates and plans for keeping everyone safe, please visit our website: [Southeast Coronavirus Website \(https://www.southeasttech.edu/coronavirus/face-masks.php\)](https://www.southeasttech.edu/coronavirus/face-masks.php)

## 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.

## Disability Services

Students with documented disabilities may be eligible for certain classroom accommodations. Disabilities may include hearing, visual, physical, psychological and learning impairments. Accommodations may include additional testing time, private testing rooms, readers, note takers, interpreters, and taped/digital texts. Students must provide the Disability Services Coordinator with recent written documentation of a disability before qualifying for services. Contact the Disability Services Coordinator at 605.367.4450 for more information.

## 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 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.

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.

## Netiquette Guidelines

Netiquette should be used in all electronic communications. Please review this "Top Ten" list for successfully communicating with your instructors and classmates.

### Respect Goes a Long Way!

*Treat instructors, classmates and all others in a professional and respectful manner in all communications. A good rule of thumb is to only post what you would be willing to say to your reader's face.*

### Say What?

*Use a clear, descriptive subject line when sending email messages.*

### Use Your Inside Voice Please

*Be cautious of using ALL CAPS. This implies you are yelling at your reader.*

### Proofread, Proofread, Proofread

*Always make an effort to use proper punctuation, spelling and grammar.*

### Know Your Audience

*Sarcasm and humor can easily be misinterpreted. Online messages are lacking the non-verbal communication cues that face-to-face conversations allow.*

### Attempt to Find Your Own Answer

*If you are stuck on an assignment, it is easy to reach out and ask for clarification. Part of the learning process is to try to problem-solve on your own first. If you are still confused, we are here to help!*

### Think Before you Type

*Never type when you are angry or frustrated. Please consider having a neutral third party read your message prior to sending.*

### Agree to Disagree

*Remember you may not always have the same viewpoint as others. It is fine to disagree as long as you are respectful. There can be disagreement without disrespect.*

### Shorter is Better

*Keep paragraphs and messages short and to the point.*

### Patience is Key

*Allow for response time. It is easy to forget that there are people on the other side of the online communication. An immediate response is not always feasible. Please plan accordingly.*

## Notice of Nondiscriminatory Policy

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. Inquiries regarding this policy may be directed to:

**Tracy Noldner**

2320 N. Career Ave.  
Sioux Falls, SD 57107  
605-367-7487

[tracy.noldner@southeasttech.edu](mailto:tracy.noldner@southeasttech.edu)

*or to the*

Kansas City Office  
Office of Civil Rights  
U.S. Department of Education  
One Petticoat Lane  
1010 Walnut Street, 3<sup>rd</sup> Floor, Suite 320  
Kansas City, MO 64106

Telephone: 816-268-0550  
FAX: 816-268-0599 TDD: 800-877-8339  
email: [OCR.KansasCity@ed.gov](mailto:OCR.KansasCity@ed.gov)

## 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.

Part of the institute's goal and responsibilities is to provide training for employees and students regarding how to respond to and report sexual misconduct/harassment concerns, how to intervene, and how to maintain a working and learning environment that is positive and respectful.

All reports of sexual misconduct, harassment or discrimination at Southeast Tech are investigated with the goal of eliminating the concern, preventing its recurrence, and addressing its effects. See Student/Complaint Process and Harassment for more information.

Contact Information for the Southeast Technical College Title IX Coordinator:

**Brett Arenz**

201 E. 38th Street  
Sioux Falls, SD 57105  
605-367-4670

[Brett.Arenz@k12.sd.us](mailto:Brett.Arenz@k12.sd.us)

Concerns may be reported directly to this individual in person, by calling 605-367-4670, or by emailing [Brett.Arenz@k12.sd.us](mailto:Brett.Arenz@k12.sd.us). Individuals with immediate concerns should call campus security at 605-941-9003.

The following are additional resources regarding Title IX, sexual misconduct, harassment and discrimination:

- [Sexual Assault Awareness, Prevention & Reporting \(http://catalog.southeasttech.edu/content.php?catoid=23&navoid=15183\)](http://catalog.southeasttech.edu/content.php?catoid=23&navoid=15183)
- [Title IX and Sex Discrimination \(U.S. Department of Education\) \(http://www2.ed.gov/about/offices/list/ocr/docs/tix\\_dis.html\)](http://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html)
- [Know Your IX \(http://knowyourix.org/\)](http://knowyourix.org/)

- [Sioux Falls Helpline Center \(http://helplinecenter.org/\)](http://helplinecenter.org/)

## 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. The Southeast Tech Campus is policed by the Sioux Falls Police Department and Minnehaha County Sheriff's Department. Southeast Tech's security officers are contracted through the Minnehaha County Sheriff's Department or independent security.

Access to the Southeast Tech campus facilities is authorized through the President's Office. Building keys are issued to staff as needed. All staff are authorized to call the appropriate authorities in case of an emergency. All buildings shall be locked and unlocked by Southeast Tech employees. Southeast Tech employees must be present when buildings are open. Unless other arrangements have been made, Southeast Tech buildings will open at approximately 7:00 am during weekdays and will close Monday through Thursday at approximately 10:00 pm. On Friday, the buildings will close at approximately 5:00 pm. All buildings remain locked after hours and throughout the weekend unless prior arrangements have been made.

Southeast Tech provides students and staff with educational programs/information established to prevent the occurrence of all crimes (including sex offenses) on campus and procedures to be followed, if such crimes occur. These programs/information are provided during campus events, within courses, or through media such as brochures, websites, the Catalog, etc. In addition, Southeast Tech provides a full-time day security officer and part-time evening security coverage.

In the event a student believes that a crime (including all types of sexual misconduct) has occurred, the student should contact local law enforcement authorities and notify a Southeast Tech administrator or campus security. It is important that all evidence be preserved for law enforcement investigation. In addition to criminal prosecution, institutional disciplinary action may be taken in all situations involving a crime conviction on the Southeast Tech campus. Sanctions may include oral or written reprimand, short-term suspension, long-term suspension, or termination. Accuser and accused will have the same opportunities during disciplinary proceedings and both will be informed of the outcome of these proceedings. Students involved in campus crimes will be counseled by Southeast Tech staff and referrals made as needed.

## 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 STInet 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.

## Services for Non-traditional Students

Southeast Tech offers special targeted services for a wide variety of nontraditional students. Success Advisors are available to assist eligible individuals in selecting a program of study, applying for financial assistance, locating childcare, and networking with community resources. Students considered nontraditional fit into one of the following categories:

Individuals in training programs that are nontraditional for their gender (25% or less of the individuals working in that field are of the same gender);

1. Single parents;
2. Single pregnant women;
3. Displaced homemakers;
4. Dislocated workers;
5. Students not coming directly out of high school;
6. Individuals unsure of their career direction.