Course Description
Students learn fundamental information technology concepts, processes and tools that drive business innovations resulting in local and distributed product and service solutions. Specifically, students will be introduced to solution design, prototyping, solution development and deployment, communication, and user-data analytics in startup and growth companies. Students end the course with a technology portfolio of installed and cloud-based platforms and services.

Course Prerequisite
MATH 111 or MATHH 250 or DSCI 232

This class is an in-depth life cycle approach to information systems analysis, design, and implementation. As a senior level course, its purpose is to provide the student with an understanding of issues involved in analyzing business problems and then designing, constructing, and implementing technology-based solutions to those problems. Our domain specific objectives involve both (1) concepts and (2) application of concepts.
**Course Learning Objectives**

- Understand fundamental issues involved in system development to include the system development life cycle and its phases
- Understand and properly apply analysis methods to systems development
- Understand and properly apply design methods to systems development
- Demonstrate the implementation of an analysis and design model

More specifically, through readings, lecture, exercises, exams and a comprehensive term project, students will:

- Understand the importance of linking an information system to business objectives
- Understand how to assess technical, economic and organizational feasibility
- Understand how & why to use good project management techniques
- Be able to perform systems analysis
- Be able to perform process modeling and data modeling
- Be able to plan and design a new information system or develop enhancements to an existing information system
- Be able to develop a prototype of a system and/or major system component
- Be capable of fully participating in the management of a systems development project

Since the information systems work in this course is project teamwork, expectations associated with project team process on the comprehensive project include the following:

- demonstrating effective and efficient meeting management skills
- demonstrating written and oral communication skills
- demonstrating conflict resolution skill
- demonstrating skill in playing the roles of facilitator, scheduler, and scribe

**Required Material**

- Students will need to bring laptops to class to be used with:
  - Microsoft Office (Word, Excel, Access, PowerPoint)
  - OAKS

**Student Learning Objectives**

1. **Design and implement a major research project that reflects a high level of proficiency in methods of inquiry and ways of thinking.**

   Through a major, team-engaged, industrial research project, students will deliver a product that reflects proficient utility with concepts, data, processes and tooling. Evidence of engagement in a major, team-engaged, industrial research project will be treated with quantitative and qualitative methods at the empirical level. Theoretical engagement precedes and underpins synthetic and empirical thinking.

**Measurement**

1: Students in teams synthesize a business solution as a product and/or as a service using a visual language (low code) and with supporting software tools. Measurement
2: Students in teams apply an agile methodology (Scrum) for iterative product development.
2. **Demonstrate the ability to create and communicate analytic arguments supported by evidence.**

   Students apply the concepts of process creation, process composition and process orchestration in analyzing and designing Information Systems.

   **Measurement**
   1: Students apply the concepts of information flow and process flow to define the information and communication architecture that determines the nature of a system. Students will be assessed on their ability to define a solution on which to implement their team-based solutions.

**Method of Teaching/Learning**

This course is a face-to-face, in-person course. The course is organized on OAKS with excel, Information Management, and Tableau material. Live Zoom sessions will be held for students who cannot make it to class due to COVID-related reasons.

**Teaching and Learning Philosophy**

Tell me and I forget.
Teach me and I remember.
Involve me and I learn.

Benjamin Franklin

We learn by doing. We are learning together through active engagement with each other and with the material in the course. Just as important as the material are your ideas, reflections and feelings about the material and what matters to you. My foundation for my interaction is simple.

**Be human.** Open yourself up. Treat others with respect.

**Be present.** Be engaging. Share your thoughts with me and other students.

**Be adaptable.** Expect things to change. Work with me. I’ll work with you.

Let’s ready our minds for new ideas and skills, challenging preconceptions about technology in business. In doing so, we’ll all be successful in the end and satisfied with the experiential learning journey that got us there.

**What is Experiential Education?**

Challenge and experience followed by reflection leading to learning and growth.

Experiential education is a teaching philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities.

See [https://www.aee.org/what-is-ee](https://www.aee.org/what-is-ee)

**Course Schedule**

The updated schedule will be provided on OAKS as a course map.

**COURSE ACTIVITIES & REQUIREMENTS**

**Exams (40%):** There will be three exams administered in this course. Exams will cover material from text, lecture materials, assignments, lab exercises, notes and any handouts. Exams will consist of various types of questions such as multiple choice, short answer, and discussion. Failure to attend an exam, except in the case of an emergency* will result in a zero on the exam. No makeup exams are given. However, if you must miss an
exam for an excusable* reason and you discuss it with me BEFORE the exam, you may take an optional comprehensive exam at the end of the semester to replace the zero. If the case of an emergency, documentation of the emergency must be submitted within 7 calendar days of the exam absence or by the next to last day of class in the quarter, whichever is sooner.  
*see section on absences and tardiness for a description of what is and is not excusable

**Term Project (60%)**: The emphasis in our text and in this class will be on **DOING** systems analysis, design AND implementation, not just talking and reading about it. So, we will do an outside project that will follow an information system through the systems development life cycle. The complete details, requirement specifications, and expectations will be presented in a separate handout. To summarize a few of the details:

- By the 7th calendar day of the quarter, students should select their groups. One member of each group should turn in to me a group list and rules of engagement.
- Your group will then work together to determine the objective and scope of your development project. Groups will then find a business or organization who has a system development need that needs to be met, a social or security-focused need that can be met with IS. Your project should be an application in a business, organization, social or industry setting with which you are familiar or about which you are willing to learn (on your own).
- At various stages during the system development life cycle, there are various deliverables and documentation that must be prepared. As we cover each stage, you will be given further instructions on how to prepare those documents and deliverables for your project. Each team will work together during this time to perform each phase of the systems development process for their chosen project, with a limited implementation phase.
- At the end of the quarter, each team will submit documentation as outlined in the supplemental materials for each phase of the project and will present their findings, recommendations, and a working prototype to the class.
- **ATTENDANCE IN CLASS** is a major part of class expectations and your grade. Excessive absences will result in a 10% reduction of your final course grade. See the course policies for details.

Rather than overwhelming you with all material for the course all at one time, the modules are released in weekly sets of modules. As for the group project, you will work at your own pace and share with us your progress every Friday.

**Numerical Grade to Letter Grade Mapping**

<table>
<thead>
<tr>
<th>Points</th>
<th>Letter Grade</th>
<th>Points</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 94</td>
<td>A</td>
<td>73-75.99</td>
<td>C</td>
</tr>
<tr>
<td>90-93.99</td>
<td>A-</td>
<td>70-72.99</td>
<td>C-</td>
</tr>
<tr>
<td>86-89.99</td>
<td>B+</td>
<td>66-69.99</td>
<td>D+</td>
</tr>
<tr>
<td>83-85.99</td>
<td>B</td>
<td>63-65.99</td>
<td>D</td>
</tr>
<tr>
<td>80-82.99</td>
<td>B-</td>
<td>60-62.99</td>
<td>D-</td>
</tr>
<tr>
<td>76-79.99</td>
<td>C+</td>
<td>&lt;60</td>
<td>F</td>
</tr>
</tbody>
</table>

**What can you expect from me?**

My goal is to challenge you and help you excel. I will set high expectations and push you to surpass them. I plan to do this in the most enthusiastic and supportive way I can.

I will provide you with instructions and expectations for your work and fairly evaluate you according to those expectations.

I will always make time to listen to your ideas and concerns and support your endeavors to become a more competent communicator.
This course will only succeed if, together, we create an atmosphere of respect, openness, and honesty.

What can I expect from you?
You will be engaging, inquisitive, and respectful. Take time to engage with your colleagues in the class. Be present and helpful. Ask questions. Help others to understand better. Pay it forward when you can. It’s OK if you, like me, make mistakes, that is the best way to learn.

At the beginning of every week, you are expected to log in to the course to review the upcoming modules. Then at least one time per day, check for new announcements and review assignments.

Course Policies
I treat class like a job, and I expect students to do the same. Thus, I take professionalism very seriously and I hope you will, too. A professional is courteous, focused, motivated, and reliable. A professional also contributes to the community, whether that community is a classroom or workplace. In this course, being a professional involves several elements:

Late Work
I expect you to treat this class like a job and deadlines must be met. Please don’t make things awkward by asking for an extension.

Unless otherwise noted, all assignments are due on the due date and time listed in the OAKS calendar or by that graded item.

If you are in a time zone other than Eastern, make sure you pay very close attention to dates/times. I recommend changing your time zone setting in OAKS to Eastern Time to prevent confusion. You can accomplish this by clicking on your name in the upper right corner of OAKS, then choose Account Settings.

If extraordinary circumstances arise (e.g., hospitalization) or family emergency, or network outage, notify me as soon as possible so arrangements can be made.

If you know you will not have access to OAKS when an assignment is due, it is your responsibility to turn in the assignment early.

Murphy’s Law: “Anything that can go wrong, will go wrong.” Laptops are stolen. Hard drives crash. Your wireless connection fails. So, do not wait until the last minute to submit your assignments and SAVE OFTEN.

Always save duplicates of your work on an external source (e.g., thumb drive, Google Drive, Dropbox.com). Every single semester, a student loses their work because of a hard drive crash or the Library computer logging off unexpectedly.

For good records management, keep all assignments that are graded and handed back to you until final grades have been submitted at the end of the semester.

Communication
Communication will occur in multiple ways: Zoom (classes and office hours), OAKS announcements, OAKS content, OAKS gradebook, OAKS discussions, and CofC email.

Ask Three, Then Me
Before emailing me, please follow these steps:

1. Consult the class schedule and syllabus on OAKS.
2. Check OAKS for announcements.
3. Confer with one classmate.

Then, if you still don’t know the answer to your question, you may email me.

**Email**

Most organizations are dependent on email for internal and external communications. The way you present yourself in emails says a lot about your work ethic and your priorities. Start practicing email etiquette now so that it will be second nature when you enter the workforce.

When corresponding with me, please:
- include INFM 220 in the subject line
- include a respectful greeting (e.g., “Dear Dr. Tazkarji”)
- fully sign your name
- use complete sentences
- proofread your email

Typically, I will respond to your email within 24 hours.

If you do not receive a reply within 48 hours, please re-send your message.

**Technical Difficulties**

If you have questions or problems related to the course, please follow the communication procedures noted above. If you have technical problems, please contact Student Computing Support or Helpdesk using these methods:

Student Computing Support
843-953-5457
studentcomputingsupport@cofc.edu
blogs.cofc.edu/scs

Helpdesk
843-953-3375
helpdesk@cofc.edu
https://help.cofc.edu

It’s important to resolve technical problems swiftly, so do not delay getting support. Computer failure or unavailability does not constitute an excuse for not completing assignments.

**Class Climate and Etiquette**

As stated in the Student Handbook: “a college classroom requires a higher level of courtesy than many people exercise in ordinary public space. Everyone in a classroom is there for the purpose of learning, and no one should be able to deprive another person of the chance to learn. Expressions of rudeness and even carelessness degrade the high purpose of learning that should be paramount in a college classroom.” This applies equally to the online classroom.

To maintain a respectful and supportive environment, please uphold these rules of netiquette. Netiquette is network etiquette, the do's and don'ts of online communication.

Be kind and ethical. Avoid using sexist, racist, and homophobic language in your writing and speaking; it will not be tolerated. Ask yourself, "Would I say this to the person's face?" If the answer is no, rewrite. And I'm assuming here that you would not feel comfortable saying rude or harassing things to a person's face.
Be aware of how your communication may be perceived by others. For example, if you use ALL CAPITAL LETTERS, will folks feel like you are angry or shouting? Or, if you have a dry sense of humor, will your sarcasm be evident, or might others misinterpret your message?

Be forgiving. We all make communication faux pas, so ask clarifying questions rather than attacking. But if you experience any questionable or outright inappropriate behavior from your colleagues, please let me know.

Respect disagreement. I expect everyone in the class to respect others’ rights to speak, to listen attentively to what is said, and to use discretion and sensitivity when speaking. This does not mean you have to agree with everything said. Debate is a valuable component of a learning community. However, I expect you to be respectful of me and of your colleagues.

Share your knowledge. As Bill Nye says, “everyone you will ever meet knows something you don’t.” You are an expert in something (perhaps many things), so if that expertise becomes relevant, share your knowledge.

Cite your sources. When you share opinions, it’s important to support your claims with sources. This doesn’t mean that you must have a citation for everything you post but providing evidence will strengthen your arguments and will also provide additional resources for your colleagues. But whenever you are using the intellectual property of others, you must always cite your sources.

Help each other. If you notice a colleague has asked a question or written about a problem, jump in and offer assistance. This is especially true on discussion boards.

**Attendance and Absence Policy**
Just like any organization, this class is a community whose success is dependent on everyone’s participation. Your performance will likely correlate to getting the job done by doing assignments and interacting with me and your classmates.

Your level of class attendance is not part of your grade. Your number of class absences is not part of your grade. Your grade is directly impacted level of participation in assigned class work, so doing the work when scheduled or making up work when late (due to an absence) is your responsibility.

If you are absent, I will be happy to work with you to catch up. Just ask. Communication is the best way to reduce anxiety and increase your success.

**OAKS**
OAKS, including Gradebook, will be used for this course throughout the semester to provide the syllabus and class materials and grades for each assignment, which will be regularly posted.

**Errors in the Gradebook on OAKS**
Grades will be posted on OAKS. It is the student’s responsibility to ensure that all grades entered are correct. If I have made a mistake, the student has **two weeks** from when the assignment/exam was graded to notify the instructor of the mistake. Failure to notify the instructor within this time frame will result in the recorded grade becoming permanent.

**Test, Exam and Quiz Proctoring**
Tests and the final exam are proctored by the instructor in the classroom. Tests and the final exam are closed book, closed notes, closed phone, with no other browser windows or tabs open on your computer. Tests and the final exam are timed.

**Inclement Weather, Pandemic or Substantial Interruption of Instruction**
If in-person classes are suspended, faculty will announce to their students a detailed plan for a change in modality to ensure the continuity of learning. All students must have access to a computer equipped with a
web camera, microphone, and Internet access. Resources are available to provide students with these essential tools.

**Laptop Requirement**
All students must have access to a computer equipped with Internet access. Resources are available to provide students with these essential tools.

**Questions and Problems**
You are encouraged to ask questions during class and office hours. Your problems, ideas and opinions need to be expressed in a professional way.

**Academic Integrity**
“Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when suspected, are investigated. Each incident will be examined to determine the degree of deception involved.

Incidents where the instructor determines the student’s actions are related more to misunderstanding and confusion will be handled by the instructor. The instructor designs an intervention or assigns a grade reduction to help prevent the student from repeating the error. The response is recorded on a form and signed both by the instructor and the student. It is forwarded to the Office of the Dean of Students and placed in the student’s file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XXF in the course, indicating failure of the course due to academic dishonesty. This status indicator will appear on the student’s transcript for two years after which the student may petition for the XX to be expunged. The F is permanent.

Students can find the complete Honor Code and all related processes in the Student Handbook at: http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php.”

**Gender Equity**
The instructor will gladly honor your request to address you by the name, nickname and/or gender pronouns of your choice. Please advise the instructor of this early in the semester via your college-issued email account or during office hours so that I may make the appropriate notation on my class list.

**Inclusion**
The College of Charleston offers many resources for LGBTQ+ students, faculty and staff along with their allies.

- Preferred Name and Pronoun Information
- On Campus Gender Inclusive facilities
- Campus Resources
- College of Charleston Reporting Portals
- National Resources for Faculty & Staff
- GSEC Reports
- Documenting LGBTQ Life in the Lowcountry (CofC Addlestone Library Special Collections Project)
- College of Charleston Quality Enhancement Plan (QEP)
- Articles about CofC and LGBTQ+ Issues

**Disability Accommodation**
1. Any student eligible for and needing accommodations because of a disability is requested to speak with the professor during the first two weeks of class or as soon as the student has been approved for services so that reasonable accommodations can be arranged. Center for Disability Services/SNAP.

2. The College will make reasonable accommodations for persons with documented disabilities. Students should apply for services at the Center for Disability Services/SNAP located on the first floor of the Lightsey Center, Suite 104. Students approved for accommodations are responsible for notifying me as soon as possible and for contacting me one week before accommodation is needed.

3. This College abides by section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. If you have a documented disability that may have some impact on your work in this class and for which you may require accommodations, please see an administrator at the Center of Disability Services/SNAP, 843.953.1431 or me so that such accommodation may be arranged.

Center for Student Learning
The Center for Student Learning’s (CSL) academic support services provide assistance in study strategies, speaking & writing skills, and course content. Services include tutoring, Supplemental Instruction, study skills appointments, and workshops. Students of all abilities have become more successful using these programs throughout their academic career and the services are available to you at no additional cost. For more information regarding these services please visit the CSL website at http://csl.cofc.edu or call (843) 953-5635.

Mental & Physical Wellbeing
At the college, we take every student’s mental and physical wellbeing seriously. If you find yourself experiencing physical illnesses, please reach out to student health services (843.953.5520). And if you find yourself experiencing any mental health challenges (for example, anxiety, depression, stressful life events, sleep deprivation, and/or loneliness/homesickness) please consider contacting either the Counseling Center (professional counselors at http://counseling.cofc.edu or 843.953.5640 3rd Robert Scott Small Building) or the Students 4 Support (certified volunteers through texting "4support" to 839863, visit http://counseling.cofc.edu/cct/index.php, or meet with them in person 3rd Floor Stern Center). These services are there for you to help you cope with difficulties you may be experiencing and to maintain optimal physical and mental health.

Food & Housing Resources
Many CofC students report experiencing food and housing insecurity. If you are facing challenges in securing food (such as not being able to afford groceries or get sufficient food to eat every day) and housing (such as lacking a safe and stable place to live), please contact the Dean of Students for support (http://studentaffairs.cofc.edu/about/salt.php). Also, you can go to http://studentaffairs.cofc.edu/student-food-housing-insecurity/index.php to learn about food and housing assistance that is available to you. In addition, there are several resources on and off campus to help. You can visit the Cougar Pantry in the Stern Center (2nd floor), a student-run food pantry that provides dry-goods and hygiene products at no charge to any student in need. Please also consider reaching out to Professor ABC if you are comfortable in doing so.

Statement on “Religious Accommodation for Students”
The College of Charleston community is enriched by students of many faiths that have various religious observances, practices, and beliefs. We value student rights and freedoms, including the right of each student to adhere to individual systems of religion. The College prohibits discrimination against any student because of such student’s religious belief or any absence thereof.

The College acknowledges that religious practices differ from tradition to tradition and that the demands of religious observances in some traditions may cause conflicts with student schedules. In affirming this diversity, like many other colleges and universities, the College supports the concept of “reasonable accommodation for religious observance” in regard to class attendance, and the scheduling of examinations and other academic work requirements, unless the accommodation would create an undue hardship on the College. Faculty are
required, as part of their responsibility to students and the College, to ascribe to this policy and to ensure its fair and full implementation.

The accommodation request imposes responsibilities and obligations on both the individual requesting the accommodation and the College. Faculty members are expected to reasonably accommodate individual religious practices. Examples of reasonable accommodations for student absences might include: rescheduling of an exam or giving a make-up exam for the student in question; altering the time of a student’s presentation; allowing extra-credit assignments to substitute for missed class work or arranging for an increased flexibility in assignment dates. Regardless of any accommodation that may be granted, students are responsible for satisfying all academic objectives, requirements and prerequisites as defined by the instructor and by the College.

### 2021 – 2022 Religious Holidays

<table>
<thead>
<tr>
<th>Date</th>
<th>Holiday</th>
<th>Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 6 – September 8, 2021</td>
<td>Rosh Hashanah&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Jewish</td>
</tr>
<tr>
<td>September 15 – September 16, 2021</td>
<td>Yom Kippur&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Jewish</td>
</tr>
<tr>
<td>September 20 – September 27, 2021</td>
<td>Sukkot&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Jewish</td>
</tr>
<tr>
<td>September 27 – September 29, 2021</td>
<td>Shemini Atzeret&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Jewish</td>
</tr>
<tr>
<td>October 6 - October 14, 2021</td>
<td>Navaratri</td>
<td>Hindu</td>
</tr>
<tr>
<td>November 4, 2021</td>
<td>Diwali</td>
<td>Hindu</td>
</tr>
<tr>
<td>November 28 – December 6 2021</td>
<td>Hanukkah</td>
<td>Jewish</td>
</tr>
<tr>
<td>January 7, 2022</td>
<td>Christmas&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Orthodox Christian</td>
</tr>
<tr>
<td>January 14, 2022</td>
<td>Sankranti</td>
<td>Hindu</td>
</tr>
<tr>
<td>March 2, 2022</td>
<td>Ash Wednesday (Beginning of Lent)</td>
<td>Christian</td>
</tr>
<tr>
<td>March 7, 2022</td>
<td>Eastern Orthodox Beginning of Lent</td>
<td>Orthodox Christian</td>
</tr>
<tr>
<td>March 16- March 17, 2022</td>
<td>Purim&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Jewish</td>
</tr>
<tr>
<td>March 21, 2022</td>
<td>Naw-Rúz</td>
<td>Baha’i</td>
</tr>
<tr>
<td>April 2 - May 1, 2022</td>
<td>Ramadan</td>
<td>Muslim</td>
</tr>
<tr>
<td>April 15, 2022</td>
<td>Good Friday</td>
<td>Christian</td>
</tr>
<tr>
<td>April 15 - April 23, 2022</td>
<td>Passover&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Jewish</td>
</tr>
<tr>
<td>April 24, 2022</td>
<td>Good Friday (Orthodox)&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Orthodox Christian</td>
</tr>
<tr>
<td>April 20 – 29, 2022 and May 2, 2022</td>
<td>Ridván</td>
<td>Baha’i</td>
</tr>
</tbody>
</table>

<sup>1</sup>The previously included Islamic holidays of Eid al-Adha and Eid al-Fitr fall outside the regular academic year and are therefore not listed here.

<sup>2</sup>All Jewish holidays begin at sunset on the evening before the date given.

<sup>3</sup>Orthodox Christian holidays begin at sunset on the evening before the date given.