Course Description

Prerequisite COSC 1307. This course is a survey of the tools and techniques for the gathering of business information and the structuring and manipulation of data to support managerial decision making. Main topic areas include decision support system technology, artificial intelligence tools, expert systems and business applications such as SAP.

Class Time

MWF 1:25 to 2:20 – COB 211

See Appendix A regarding hybrid-course structure, which we will follow if our delivery format changes from in-classroom delivery to online delivery.

Instructor Information

Dr. David Michael Hull, Assistant Professor, Computer Science Dept., COB 315.06

dhul@uttyler.edu

Office Hours

M/W/F 11:15 – 12:15.

Textbook Information

None

Course Objectives

The course is designed to meet the following objectives:

- Understanding the role of information systems in organizations
- Understanding the various information systems used
- Understanding the technical infrastructure for information systems
- Understanding the purpose and basic techniques of data management
- Understanding how to use appropriate query and search technologies to locate and retrieve pertinent business information
- Understanding the role of information technologies in solving business problems and exploiting business opportunities

We will situate portions of the instruction in contexts in which you will also learn how to apply the basics of the design thinking; and learn the basics of how to use the SAP enterprise resource planning system.

Computer Account Access

Students will need a Patriot account and password for computer access.

Course Materials

This class will use Canvas for course documents, slides and other class-related materials. I encourage you to check the website frequently to keep up to date about class changes.

The Voice of the Market—Please consider the following excerpt from one of my students from the spring of 2019:

"I just wanted to shoot you a quick email to thank you for what you've taught me. I got a job at XXX, a multi-billion-dollar consulting company. They just opened this office eighteen months ago and are establishing their cybersecurity headquarters for the whole USA in this office. It's a huge room, still under construction, with multiple security measures (separate key cards, bio metric scanning, etc.) They're looking to staff more people in it and it's where I'll be working once I complete training.

"As you can imagine, the training is very rigorous. Classroom sessions, exams where anything under a 100 is failing, the whole nine yards. EVERYTHING you've mentioned about cybersecurity has been covered and emphasized. I've been able to retain information and apply it in practice because of the way you taught it to me. When one of the instructors asked me how I knew certain things or am familiar with certain practices, I answered, "Dr. Hull taught me."

Whatever research you have going on in regards to behavioral cybersecurity, please continue.

"There's a lot of anxiety in being part of a team that protects billions of dollars' worth of assets, but you're teaching has definitely helped me. I'm sure there's many more prospective security analysts who would also benefit under your guidance."

This anecdote confirms the reliability of the following statement: "The world doesn't care what you know; the world cares about what you can do with what you know." *Tony Wagner, co-author of 'Creating Innovators' (Wagner & Compton, 2015).*

This explains why I do not measure what you know, and why I do not give objective tests (e.g., multiple-choice and true/false quizzes). I measure what you can do with what you know. I do that by having you demonstrate your reasoning skills in the service of proposing solutions to an ill-defined problem (i.e., a problem for which there is not unambiguously correct answer.

Course Grading—You can earn credit points according to the following schedule:

Table 1. Distribution of Grading Points

Activity	% of grading credits
Team-based problem-solving activities/discussion thread participation	30%
SAP assignments	Pass/fail
Mid-term exam (must be submitted to receive course credit)	30%
Final exam (must be submitted to receive course credit)	40%
Extra credit	I do not offer extra credit

Grading Rubric:

Letter Grade	Assigned Score (s)			Definition
A	90 %	$\leq s$		Mastery
B	80 %	$\leq s <$	90 %	Good Understanding
C	70 %	$\leq s <$	80 %	Adequate
D	65 %	$\leq s <$	70 %	Probably Failed to Demonstrate
F		$s <$	65 %	Definitely Failed to Demonstrate

Course Policies

1. Team-Based Problem-solving Activities—Throughout the semester, we will analyze business technology cases in a format whereby small teams (four students) will develop proposed solutions and present them in class for formative assessment by their peers. I'll explain this in detail in class and provide related explanations in Canvas.

2. SAP Assignments—SAP Assignments consist of two parts: An SAP Order-to-Cash exercise and an SAP pricing-simulation featuring the use of point-of-sale data to inform reprojections. In the SAP Order-to-Cash exercise, students will learn in a hands-on environment the document workflows whereby a customer order is converted to cash. In the SAP pricing-simulation, students will further learn how ERP systems can be used in a business by competing in groups against one another to understand how decision-making can add value to their company.

3. Mid-term Exam—The mid-term exam will consist of a take-home essay. To submit your essay, you will need to upload it as a Word document to the Assignment widget in Canvas.

4. Final Exam—The final exam will consist of a take-home essay. To submit your essay, you will need to upload it as a Word document to the Assignment widget in Canvas of your team's proposed solution to the semester-end problem (as explained in Table 1).

5. Attendance Policy—We will follow the "flipped classroom" model whereby we devote much of our classroom time not to lecture but instead to experiential learning exercises that help you develop your ability to apply relevant knowledge, using effective communication skills, teamwork skills and problem-solving skills. Thus, attending class is vitally important to your learning and academic performance. See Appendix A for detail regarding how I have adapted these guidelines for the

COVID-19 context in which we conduct class via a hybrid schedule or, if that approach proves unworkable, to an online-only format.

6. I do not allow make-up exams because the exams are take-home activities, which I assign with ample notice before the due date.

Classroom Lab Rules
1. Please do not surf the Web during class unless instructed to access the Internet.
2. Do not access inappropriate Web sites during class. Such behavior will lead to dismissal from the class.
3. Do not work on other assignments during class.
4. Please do not talk to your neighbor during class.
5. Do not use the printer during class.
6. Do not bring food or an uncovered drink into the computer classroom lab.
7. Do not use your phone during class.

University Policies and Additional Information that Must Appear in Each Course Syllabus (5/17)
UT Tyler Honor Code
> Every member of the UT Tyler community joins together to embrace the ethics of honor and integrity. These ethics prohibit lying, cheating, and stealing, and do not tolerate the actions of those who do.

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.php

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. 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 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 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.

Disability/Accessibility Services

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 psychological disabilities. If you have a disability, including non-visible disabilities such as learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to visit https://hood.accessiblelearning.com/UTTyler and fill out the New Student application. The Student Accessibility and Resources (SAR) will contact you when your application has been submitted and an appointment with Cynthia Lowery, Assistant Director of Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at http://www.uttyler.edu/disabilityservices, the SAR office located in the University Center, # 3150 or call 903.566.7079.

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 day of class 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.

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.

i.   "Cheating" includes, but is not limited to:
- copying from another student's test paper;
- 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 un-administered 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 has 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 un-administered test, test key, homework solution, or computer program or information about an un-administered test, test key, home solution or computer program;
- falsifying research data, laboratory reports, and/or other academic work offered for credit;
- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, 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.

ii.   "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.

iii.   "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

iv.   All written work that is submitted will be subject to review by plagiarism software.

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)

Tentative Course Schedule and Assignments:

Topics and scheduled dates may vary depending on the pace of the class and are subject to change at the instructor's discretion.

Week	Topic
1	Career planning: The technology-competent business professional
1	Local-device computing
2-6	Networked-device computing; databases and data analytics • Netflix case study • Cybersecurity • 5G and the Internet of Things • Expert systems and AI
7	Mid-term essay exam
7	• Introduction to MIS-enabled design thinking • Schedule team-based design-thinking presentations of design-thinking solutions
8 & 9	• SAP order-to-cash & order fulfillment (the water game). Note: I might reschedule this activity for later in the semester. I'll explain as we approach this activity.
10-13	• Team presentations of MIS-enabled design thinking solutions
14	• Reflections on themes that run throughout the activities in weeks 8-13 • Implications for your career planning • Final exam essays due last day of finals week

Appendix A: See the accompanying document entitled, "Description of Hybrid Instruction Model."