

The University of Texas at El Paso



Decision Support Systems (Online)

Course Number: IE 4395 / IE 5390
Summer 2020

Class Details:

Instructor : Sreenath Chalil Madathil, Ph.D.
Schedule : June 8th 2020 – July 6th 2020
Location : Online
Office Hours : Tuesday 3:00 PM – 4:00 PM on Blackboard Collaborate
: Thursday 3:00 PM – 4:00 PM on Blackboard Collaborate
: By Appointment in Microsoft Teams
TA Office Hours : 11:00 AM to 12:00 Noon on all working days
Email : schalil@utep.edu
Course Link : UTEP Blackboard

Course Description:

Decision support systems (DSS) compile raw data from various inputs, organizes the data, and help decision makers analyze the data and generate meaningful insights that can solve their problems and make better decisions. This course, a complete online class, guides to design decision support systems for industries and service systems based on operations research models. Includes use of spreadsheets, databases, and integrated software development environments to implement decision support systems. This course covers methods, tools, and techniques for designing the functional aspects of enhanced decision making and developing DSS interfaces.

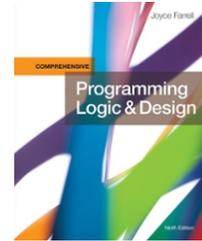
Course Objectives:

After completion of this course, students will be able to:

- Design useful and usable OR-based DSSs for decision makers and operators in your (future) company
- Develop DSSs with appropriately sophisticated core technologies that are integrated with MS office tools that are readily available in most organizations and familiar to many.

Preferred Reference Books:

- Programming Logic and Design, Introductory, 9th Edition, Joyce Farrell
ISBN-10: 1-337-10963-0
ISBN-13: 978-1-337-10963-5
- Relational Databases and Microsoft Access
<https://open.umn.edu/opentextbooks/textbooks/442>
- VBA for modelers, 5th Edition, Christian S Albright
ISBN: 978-1-285-86961-2
- Beginning Excel, Noreen Brown, Barbara Lave, Julie Romey, Mary Schatz and Diane Shingledecker
<https://openoregon.pressbooks.pub/beginningexcel/>



Other Reference Books:

- Smith, Excel VBA: A Step-By-Step Guide to Learn and Master Excel VBA Programming
https://www.amazon.com/Excel-VBA-Step-Step-Programming/dp/1722122129/ref=tmm_pap_swatch_0?encoding=UTF8&qid=1534175534&sr=8-6
- Friedrichsen, Microsoft® Access 2013: Illustrated Brief, 1st Edition
https://www.amazon.com/Microsoft-Access-2013-Illustrated-Brief/dp/1285093291/ref=sr_1_6?ie=UTF8&qid=1534175833&sr=8-6&keywords=Lisa+Friedrichsen

Class Attendance:

The students are expected to participate in all class sessions and activities. It is the responsibility of the student to inform each instructor of extended absences. When, in the judgment of the instructor, a student has been absent to such a degree as to impair his or her status relative to credit for the course, the instructor can drop the student from the class with a grade of W before the course-drop deadline or with a grade of F after the course-drop deadline.

Laptop Information:

This course has been designated as a laptop course. Most class activities will be conducted using laptops. You will need to bring your laptop every class unless otherwise noted explicitly. In general, I assume that each student has a laptop with the appropriate software.

Required Software and Computing Resources

You will need to have / install Excel, Access, Word and PowerPoint Professional 2013 or 2016 or later. You must have this installed, even if you have a Mac, by the first Monday class of the semester. If you have a Mac, you must use an emulator such as VMWare to be able to use Office 2013 or Office 2016 or later for PCs (VBA is VERY problematic on a Mac, unfortunately).

You also must be able to create PDF files. One way to do this is to print to PDF.

If you encounter technical difficulties beyond your scope of troubleshooting, please contact the [Help Desk](#) as they are trained specifically in assisting with technological needs of students.

Exam Make-up Policy:

There will be **NO** make-up policy for exams, homework, and quizzes in this class.

Late-Submission Policy:

All late submissions for homework, poster presentation, and exams are automatically awarded zero points.

Course Materials and Office Hours:

I will post lectures, links to other relevant reading materials, homework questions, and other relevant details on blackboard. All submissions **MUST** be submitted through blackboard. Paper submissions will not be accepted. The office hours are on Tuesday between 3:00 PM and 5:00 PM in Blackboard Collaborate. However, I can also meet with you using these video conferencing services (such as Blackboard Collaborate, Microsoft teams) based on a pre-determined meeting time.

Evaluation:

I expect that each assignment (projects, examinations, and homework) be neat, professional, and submitted on time. I reserve the right to penalize unprofessional responses to any assignment up to including awarding a zero (0) for the assignment. Late work will not be accepted.

All assignments are due in blackboard by the specified time on the due date as prescribed by the instructor. Students may not use/re-use any materials from previous semester offerings of this course.

Each week you will be awarded the below ratings based on your assignments and course progress. The final grade will be based on the sum of your scores each week.

Ratings	Total weekly %	Score
Expert	≥ 90	4
Advanced	< 90 and ≥ 90	3
Satisfactory	< 80 and ≥ 70	2
Novice	< 70 and ≥ 60	1
No Major Progress	< 60	0

Grades:

Grade	Score
A	14 - 16
B	11 - 13
C	8 - 10
D	5 - 7
F	0 - 4

Example Grade Calculation (for 4 students – for illustrative purposes ONLY):

Student	Week 1	Week 2	Week 3	Week 4	Total Score	Final grade
S01	4	4	3	3	14	A
S02	3	3	3	4	13	B
S03	2	2	2	4	10	C
S04	3	3	2	2	10	C

Netiquette:

- Always consider audience. Remember that members of the class and the instructor will be reading any postings.
- Respect and courtesy must be provided to classmates and to instructor at all times. No harassment or inappropriate postings will be tolerated.
- When reacting to someone else's message, address the ideas, not the person. Post only what anyone would comfortably state in a F2F situation.
- Blackboard is not a public internet venue; all postings to it should be considered private and confidential. Whatever is posted on in these online spaces is intended for classmates and professor only. Please do not copy documents and paste them to a publicly accessible website, blog, or other space. If students wish to do so, they have the ethical obligation to first request the permission of the writer(s).

Civility Statement:

Please be respectful of all students' right to learn without disruptions. In line with this statement, please make an active effort to keep the talking to a minimum during lectures and presentations. Also make an active effort to either turn cell phones off or turn them to vibrate mode prior to the start of class. Appointments with instructor should be made in advance.

Center for Accommodations and Support Services:

If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services. Schedule an appointment with the professor(s) during the first week of classes to clarify any accommodation needs and resolve all questions pertaining to course assignments and the classroom environment. Students should present a Faculty Accommodation Letter for Student Disability Services when they meet with instructors. Accommodations are not retroactive and new Faculty Accommodation Letters must be presented each semester.

Academic Integrity:

The University of Texas at El Paso prides itself on its standards of academic excellence. In all matters of intellectual pursuit, UTEP faculty and students must strive to achieve excellence based on the quality of work produced by the individual. In the classroom and in all other academic activities, students are expected to uphold the highest standards of academic integrity. Any form of scholastic dishonesty is an affront to the pursuit of knowledge and jeopardizes the quality of the degree awarded to all graduates of UTEP. It is

imperative, therefore, that the members of this academic community understand the regulations pertaining to academic integrity and that all faculty members insist on adherence to these standards.

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes is 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; and any act designed to give unfair advantage to a student or the attempt to commit such acts. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more HOOP: Student Conduct and Discipline. Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures (HOP) and available in the Office of Student Life and the homepage of the Office of Student Life at www.utep.edu/dos, can result in sanctions ranging from disciplinary probation, to failing a grade on the work in question, to a failing grade in the course, to suspension or dismissal, among others.

Student Resources:

UTEP provides a variety of student services and support:

- [UTEP Library](#): Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- [Help Desk](#): Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.
- [University Writing Center \(UWC\)](#): Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
- [Math Tutoring Center \(MaRCS\)](#): Ask a tutor for help and explore other available math resources.
- [History Tutoring Center \(HTC\)](#): Receive assistance with writing history papers, get help from a tutor and explore other history resources.
- [Military Student Success Center](#): UTEP welcomes military-affiliated students to its degree programs, and the Military Student Success Center and its dedicated staff (many of whom are veterans and students themselves) are here to help personnel in any branch of service to reach their educational goals.
- [RefWorks](#): A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.

Email

You are responsible for all e-mail messages sent by the instructor. Public messages intended for the entire class are sent automatically to campus accounts. If the student elects to forward campus mail to an off-campus account, the student remains responsible for these messages regardless of whether they are successfully delivered.

I will be communicating a variety of important course information to you via e-mail, so I would encourage you to get in the habit of regularly checking your e-mail account. At minimum, you should check your e-mail at least once per day, every day.

Course Outline (Tentative)

Week	Topic
1	Course overview
	Important Excel Functions
	Advanced Excel Tools
	VBA Introduction
2	Data Interface
	Data Handling and Manipulation
	Decision making
	Errors and Debugging
3	Modular codes and functions
	Arrays and user defined types
	User forms
	Access to database
4	Queries
	Access operators
5	Final Exam

PS: I reserve the right to change the course outline based on the course progress.