



SYLLABUS
IE 4933/6933 INFORMATION SYSTEM FOR INDUSTRIAL ENGINEERING
Fall 2022

INSTRUCTOR: Haifeng Wang, Ph.D.
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OFFICE: McCain 260P
Tel.: 662-325-3923
CLASS HOURS: M, W, F: 10:00AM - 10:50AM (Location: **MCCAIN 190**)
OFFICE HOURS: M, W: 1:00PM - 2:30PM (McCain 260P); or by appointment
TEACHING ASSISTANT: Ellen Reaux (eor11@msstate.edu, McCain 320C)
WEBSITE: canvas.msstate.edu

CATALOG DESCRIPTION:

Three hours lecture. An introduction to the design and development of information systems for use in industrial engineering applications.

PREREQUISITES:

IE 1911: Introduction to Industrial Engineering

TEXTBOOKS:

- 1) Walkenbach, J., and Kusleika, D. "Excel 2016 Power Programming with VBA," John Wiley & Sons, 2016.
- 2) Alexander, M., and Kusleika, D. "Access 2019 Bible," John Wiley & Sons, 2019.
- 3) "Developing Spreadsheet-Based Decision Support Systems" 2nd Edition, by Eksioglu, Hanna, Ahuja, Winston, Dynamic Ideas Publishers (<http://www.dssbooks.com/excel2/index.html>).
- 4) Jelen, B., Alexander M. "Pivot Table Data Crunching," Pearson Education Inc., 2016.

SOFTWARE:

Windows 10/11
Microsoft Access and Excel 2016 (or later)
(<http://it.engr.msstate.edu/software>, sign in with MSU NetID and MSU)

COURSE OBJECTIVES:

- To learn and practice the fundamentals of programming for the purpose of applications development.
- To be able to design and program Excel & Access applications to support industrial engineering analyses using the Visual Basic for Applications (VBA) language.
- To learn and practice the design and implementation of database systems considering the needs of the applications and its users.
- To perform query operations on a real problem dataset.
- Learn how to learn a programming language.

GRADE DETERMINATION:

- Quizzes 20%
- Mid-term Exam 25% (tentatively October 10th Monday)
- Final Exam 30% (TBD)
- Homework Assignments 20%
- Participation 5%

Final letter grades will be determined: A = 90% through 100%; B = 80% through 89%; C = 70% through 79%; D = 60% through 69%; F = Less than 60%. Grades will be posted on-line. Disputations of assignment or exam grade should be discussed with the professor within one week from the date the grade is submitted. As a note: A request for grade review will result in a complete regrading of the assignment or exam, not only those items in the request.

Quizzes (20%): There will be five online quizzes (the exact time will be notified through Canvas). Quizzes are close book, close notes. You can drop one lowest quiz grades. There will be no make-up for the quizzes (unless this is the result of an officially excused absence).

Exams (55%): There will be two exams (midterm and final), and the final exam will be cumulative, but with an emphasis on the material covered since the midterm.

Assignments (20%): Four assignments will be assigned. These assignments will consist of a few exercises which you should complete after class. The assignment will be due at noon on the due date (more details will be noticed in each assignment). A 15% penalty will be assessed for assignments submitted by 5pm on the day the assignment is due. No credit will be given for an assignment that is turned in after 5pm on the day that it is due (unless it is the result of an officially excused absence). Assignments should be submitted on-line. Emailing assignments is unacceptable unless prior arrangement is made with the instructor. Emailing an assignment does not mean an assignment is turned in for credit. You can drop one lowest assignment grade.

Participation (5%): Class attendance (on-campus students) and CANVAS discussions will be considered for the participation. For on-campus students, excessive unexcused absences will result in a deduction to their participation grade as follows:

- 0-3 unexcused absences: 0% deduction
- 4-6 unexcused absences: 20% deduction
- 7-9 unexcused absences: 50% deduction
- 10+ unexcused absences: 100% deduction

Working Together: It is ok to discuss together on Assignments. However, when it comes time for you to write up the solutions/codes, you need to do this on your own. Working together on exams and quizzes are expressly forbidden.

Absences: Students are expected to attend every class. If you are not able to turn in a assignment, take a quiz, or take an exam because of an unexcused absence, you will not be able to turn the assignment in late or take the quiz or exam. A university excuse from a scheduled class activity such as an exam must be presented in writing no later than two weeks prior to the date of the absence. An absence due to illness or family emergency may be excused, provided that you can supply acceptable written evidence to the instructor as soon as possible.

Absent Professor: Students will be notified in advance if the instructor is going to be late for class. However, if an unscheduled conflict or emergency occurs which prevents the instructor (or someone else to take his place) from meeting the class, the students are authorized to leave after 15 min.

Suggestions: Suggestions for improvement are welcome at any time.

EXPECTED TOPICS COVERED SCHEDULE:

Topics Covered	Classes
Programming Applications in Excel	
➤ Excel Background	3
➤ VBA Programming Fundamentals	2
➤ Procedures and Functions	4
➤ User Forms	3
➤ Advanced Features	2
➤ Application Development	3
Pivot Table in Excel	
➤ Creating a Basic Pivot Table	1
➤ Grouping, Sorting, and Filtering Pivot Data	2
➤ Using Pivot Charts and Other Visualization	2
➤ Mashing up Data with Power Pivot	1
Database Design and Development	
➤ Introduction to Databases	1
➤ Creating a Tables	3
➤ Queries	2
➤ Forms	2
➤ Structured Query Languages	1
➤ Normalization in Design	1
➤ Reports	1

University Syllabus Statement

"The Mississippi State University Syllabus contains all policies and procedures that are applicable to every course on campus and online. The policies in the University Syllabus describe the official policies of the University and will take precedence over those found elsewhere. It is the student's responsibility to read and be familiar with every policy. The University Syllabus may be accessed at any time on the Provost website under Faculty and Student Resources and at <https://www.provost.msstate.edu/faculty-student-resources/university-syllabus>"

Other Policies: Make sure cell phones are OFF while in class.

Important MSU Dates

August 17	Classes begin
August 23	Last day to drop a course without a grade (5th class day) 11:59 p.m.
September 5	Labor Day Holiday - no classes scheduled
September 28	First progress grades reporting deadline (30th class day)
October 13 to October 14	Fall Break - no classes scheduled (subject to change)
October 6	Last day to drop a course with a “W” grade (36th class day) 5:00 p.m.
October 21	Second progress grade reporting deadline (end of week 10)
November 23 to November 25	Thanksgiving holiday - no classes scheduled
November 30	Classes end

NOTE

- This syllabus is subject to change based on the needs of the class; course announcements will be made during the class period or via email.
- If you are a student with special needs, please contact the instructor ASAP.