

University of Illinois at Urbana-Champaign

ASRM 195 Foundations of Data Management Fall 2020 Course Outline.

Last updated on August 21, 2020

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About the Course

Learning Objectives

This course will give an introduction to Excel (30%), VBA (30%) and R (40%).

Course material

- Excel: Wayne L. Winston (2016), *Microsoft Excel 2016 Data Analysis and Business Modeling* ([link](#));
- VBA and R: Slides

Recommended References

- VBA:
 - Guojun Gan (2017), *An Introduction to Excel VBA Programming with applications in Finance and Insurance*;
 - Excel VBA Programming for Dummies ([link](#))
 - R:
 - R programming for Data Science ([link](#))
 - R for Dummies ([link](#))
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Online Learning

Time zone (important)

The time and dates referred to in this outline and throughout the course correspond to the US Central Time, unless otherwise specified. Please make sure you correctly convert the time and dates according

to your own time zone. If you are not in Illinois, please be aware of the end of the daylight saving time on November 1, 2020, which will possibly affect the time difference between your time zone and Illinois.

Computing device

The topics covered in this course are computer-based, but unfortunately, the computer lab in the Department of Mathematics will likely not be accessible to you in Fall 2020. Therefore, a personal computer is required. Please also make sure that your operating system (usually Windows or macOS) can run Microsoft Excel. If you do not have a suitable operating system, you can get a free licensed copy of Microsoft Windows 10 Education Edition from WebStore ([Click here to store page](#)).

Delivery of lectures and course materials

To ensure that this course is accessible and fair to all students, teaching will be conducted online asynchronously. That is, there will be no live lectures. Lecture videos will be recorded and uploaded to the course Media Space channel ([Click here to subscribe](#)) on a weekly basis.

Links to the videos, any other learning materials, such as slides and spreadsheet or code samples, and announcements will also be posted on the Learn@Illinois Moodle (hereinafter Moodle) learning management system, with the course space name:

ASRM 195 CS FA20: Foundations of Data Management
([Click here to go to course Moodle site](#))

Discussion sessions and office hours

There will be three parallel synchronous discussion sessions over Zoom weekly on Tuesdays, and each lasts for 50 minutes. TA will lead the discussion for the first 10 minutes, and the remaining time will be used for Q&A.

Contents covered by TA in all three weekly sessions will be identical. You can choose to join one or more of the sessions based on your own availability. To make sure that all students have the equal opportunity to ask questions in each week's sessions, if you plan to join multiple parallel sessions and you have asked a question in one of the them, then your questions in other sessions will have a reduced priority.

Discussion sessions will be recorded and shared with the class. If you have questions regarding the course that you would prefer to discuss with the instructor privately, please send an email to the instructor to make an appointment.

The time of each weekly session will be determined at the beginning of the semester based on the time zone information of all students.

If you have questions that are not able to be resolved during discussion sessions, you can post them on the discussion boards on Moodle, and the instructor or the TA will answer your questions there. You are also encouraged to answer your classmates' questions.

Learning modules

This course is composed of 15 weekly learning modules. Each module (except Module 1) consists of the following items, which can all be found on Moodle:

- a collection of lecture videos

- slides
- spreadsheet or code samples
- homework
- discussions
 - synchronous discussions over Zoom (links to the recordings will be posted on Moodle)
 - discussion board on Moodle

Module 1 is introductory, and thus there is no spreadsheet or code sample or homework. There are parallel discussion sessions on August 25 (Tuesday) to address logistic, technological, and any other concerns about the course.

Except Module 1, all the other modules starts on Thursdays and ends on Wednesdays.

Assessment

Components

1. *Individual Assignments* (30%):
 - (a) Weekly assignments will be made available on Moodle on the first day of each module;
 - (b) Each assignment should be submitted on Moodle before the succeeding module starts. That is, assignments are due on Wednesdays at 11:59 PM. Late submissions will not be accepted;
 - (c) The sample solution of each assignment will be uploaded on Moodle;
 - (d) Any queries of assignment grading are forwarded to the TA;
 - (e) Unless an unexpected or a special circumstance happens, and a written consent is obtained from the instructor before the due date and time, any assignment submissions after the due date and time are not graded;
 - (f) Plagiarism is strictly prohibited;
2. *Midterm Examinations* (30%):
 - (a) There are 2 midterm examinations, with each sharing 15%;
 - (b) The midterm examinations are tentatively scheduled on October 8(Thursday) and November 12 (Thursday);
 - (c) The sample solution of each midterm examination will be uploaded on Moodle;
 - (d) Any queries of midterm examination grading are forwarded to the TA;
 - (e) Unless an unexpected or a special circumstance happens, and a written consent is obtained from the instructor before the examination, no make-up midterm examination is arranged;
 - (f) Cheating is strictly prohibited.
3. *Final Project* (40%):
 - (a) There is 1 final group project;
 - (b) Each group can have at most 4 members. You can also choose to work individually;
 - (c) Project details will be made available two weeks before the due date;
 - (d) The coverage of the final project is all teaching materials;
 - (e) The sample solution of the final project will not be uploaded;
 - (f) The marked and graded final project is available for checking within a week after the due date;
 - (g) Any queries of final project grading are forwarded to the TA;
 - (h) Unless an unexpected or a special circumstance happens, and a written consent is obtained from the instructor before the due date of the project, no make-up submission is arranged;
 - (i) There must be no collaboration between groups.

4. *Attendance and Participation* (5%):

- (a) This is an extra credit opportunity. Attendance and participation are not required;
- (b) For all 14 modules (excluding Module 1), if you finish watching the lecture videos in each module before the succeeding module starts, *i.e.*, 11:59 PM on Wednesdays, you will receive 3% extra credit at the end of the semester;
- (c) If you attend at least 12 different discussion sessions (parallel sessions are counted as one), you will receive 2% extra credit at the end of the semester;
- (d) 5% can possibly change you letter grade.

Final Grades

The final score is calculated based on the formula:

$$\begin{aligned} & 30\% \text{ assignments} \\ & +30\% \text{ midterm examinations} \\ & +40\% \text{ final examination} \\ & +5\% \text{ attendance\&participation.} \end{aligned}$$

Grades will not be curved.

Grading Scale

A+	[97%, 105%]	C+	[76%, 80%]
A	[93%, 97%)	C	[70%, 76%)
A-	[90%, 93%)	C-	[65%, 70%)
B+	[87%, 90%)	D	[56%, 65%)
B	[83%, 87%)	F	≤ 55%
B-	[80%, 83%)		

Academic Integrity Statement

The University has the responsibility for maintaining academic integrity so as to protect the quality of education and research on our campus and to protect those who depend upon our integrity.

1. **Expectations of Students.** It is the responsibility of each student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions. Students have been given notice of this Part by virtue of its publication. Regardless of whether a student has actually read this Part, a student is charged with knowledge of it. Ignorance is not a defense.
2. **Expectations of Instructors.** It is the responsibility of each Instructor to establish and maintain an environment that supports academic integrity. An essential part of each Instructors responsibility is the enforcement of existing standards of academic integrity. If Instructors do not discourage and act upon violations of which they become aware, respect for those standards is undermined. Instructors should provide their students with a clear statement of their expectations concerning academic integrity.

Further details: <https://studentcode.illinois.edu/article1/part4/1-401/>

Accommodations Statement

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES, you may visit 1207 S. Oak St., Champaign, call 333-4603, e-mail disability@illinois.edu or go to the DRES website. If you are concerned you have a disability-related condition that is impacting your academic progress, there are academic screening appointments available on campus that can help diagnosis a previously undiagnosed disability by visiting the DRES website and selecting “Sign-Up for an Academic Screening” at the bottom of the page.

Further details: <https://www.disability.illinois.edu/>