Statistics 4410/8416
Introduction to Data Science
Sections 820 and 850, Fall 2020

Instructor: Dr. Mahbubul Majumder — Office: DSC 238
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Lecture: Section 820: Mondays and Wednesdays 4 PM - 5:15 PM in zoom
zoom link https://unomaha.zoom.us/j/98496142621

Office Hours: Mondays and Wednesdays, 3:30 PM - 4 PM and 5:15-6:15 in above zoom link

TA: Bikram Maharjan — Email: bikrammaharjan@unomaha.edu
zoom link: https://unomaha.zoom.us/my/maharjan Password: 004410

TA Office Hours Tuesdays and Thursdays, 4 PM - 6 PM

Course web page: Canvas

Text books: Modern Data Science with R by Baumer et al. Other notes will be provided.

Course outline (approximate)

Topic	Chapter Description	Assignment
1	Introduction to data science, data product and reproducible report	HW1
2	Data visualization, subsetting, reshaping, manipulating and statistical modeling	HW2
	Abstract of the project due: Sep 24	
3	Regular expression, working with text and date, scripting language	HW3
4	Reading and scrapping data, dynamic and interactive data visualization	HW4
	First draft of the project due: October 22	
5	Creating data products and working with RDBMS(MySQL) and Linux	HW5
6	Working with Hadoop, high performance computing and predictive modeling	HW6
	Final Project due: December 18	

Practical Assignments: There will be six practical data assignments throughout the semester, one per topic listed above, however for certain topics the assignment may be split into two parts. Assignments will be posted on Canvas with due date listed. No late assignments will be accepted. It is important that students make every effort to complete all the homeworks. Any sign of copying other people's work will result into a zero score. The total score for these assignments would be 120 points (20 points per topic).

Project work: There will be no exam for this course but students have to turn in a real data project. Student will work in a group of 4/5 people and each group will turn one project paper.

Project Abstract: The project title and abstract are worth 30 points. Each group will turn one title and abstract. All the names of the group members should be listed under the title.

Draft Project: The project draft is worth 50 points. The draft is initial work which may change later.

Final Project: The final project is worth 60 points. It will be due on the final presentation day.

Final Presentation: The final presentation is worth 40 points. It will be due on the final exam day. Each group will make one presentation on their work. The length of the presentation would be 10 minutes.

Worksheets: Students are responsible to complete practical worksheets given for practice.

Canvas: Canvas will be used extensively for this course. It is your responsibility to make sure your Canvas account is functioning properly and to check the site daily for announcements and updates. Your access to the Canvas site is tied to your registration for this course. If you have concerns about your registration,

please inform the instructor as soon as possible.

Reading assignment: Topic-wise reading assignments will be given with the class notes.

Grading: Assignments = 120, Project = 140 (30+50+60) and Presentation = 40 constitute a total point of 300. Final letter grade are determined as below;

Points	Grade	Points	Grade
290 to 300	A+	230 to 238	C+
278 to 289	A	218 to 229	C
269 to 277	A-	209 to 217	C-
260 to 268	B+	200 to 208	D+
248 to 259	B	188 to 199	D
239 to 247	B-	179 to 187	D-
		0 to 178	F

Students need to check their grades on the Canvas once the graded assignments or the projects are handed back. No changes of grades will be made if it is notified 1 week after the grade is posted.

Student Behavior and Respect: It is expected that every student enrolled in this course will show respect to their fellow students and the instructor. Below are some examples.

- In class:
  - Arrive on time.
  - Do not hold conversations with other students during lecture.
  - Turn off mobile phones, and all other non-course related electronic devices.
  - Do not surf the web, check email or do homework for other classes during lecture.
- At all times:
  - Your **attendance** to each class (listening and watching lecture video) and your genuine effort on the homework and exams (doing) are two of the most important factors affecting your success in this class. Statistics requires both listening and doing. Feel free to ask me about problems after you have honestly tried—*my office hours are for you.*
  - Be polite and respectful in all communications (both in person and electronically) with other students and the instructor.
  - Simple manners go a long way; if you have asked the instructor a question via email and they have responded with the answer then a simple reply saying 'Thank You' is always appreciated.

Continued incidences of disrespect may result in removal of the student from the classroom, or in the case of more serious incidents, removal from the course and possible further disciplinary action consistent with the rules of the university.

Course Accommodations: Reasonable accommodations are provided for students who are registered with Accessibility Services Center (ASC) and make their requests sufficiently in advance. For more information, contact ASC (Location: H&K 104, Phone: 402.554.2872, Email: unoaccessibility@unomaha.edu).

Collaboration and academic honesty:

- Collaboration on assignments is permitted and encouraged. But outright copying is not allowed.
- Projects are intended to be group efforts. Students can discuss with different groups as well.
- The university academic integrity policy and its corresponding penalties apply to this course. If you are unsure whether an activity would constitute a violation of the academic honesty policy, please ask the instructor.