CDS 490 Syllabus
Version 1

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Fall 2021

1 Vitals

- Course: CDS 490

- Instructor: J. M. Kinser, D.Sc.

- Meeting Time: Asynchronous online

- Contact: Course questions will be submitted through the Blackboard website: Personal issues should be emailed to jkinser@gmu.edu

- Phone Number: 703 993 3785

This course will be based on individual research projects. It will require you to be independent and self-sufficient. These are good talents to have. If you are like me, then time management is not a strong attribute, and I would suggest setting up your own deadline schedule.

2 Individual Projects

You will create a research project, and provide intermediate updates. By the end of the semester you will create a poster presentation. Many of you will be asked to present your work at the COS Research Day, which will add a *publication* to your resume.

You will be able to choose your research project, but each project will require the approval of the instructor. This approval stage is necessary as it acts as a contract between you and the instructor. It also provides the instructor an opportunity to make sure your project is not too big. Often, enthusiastic students want to solve tough problems with huge data sets. While an admirable quest it is, we should make sure that your project is of reasonable scope for a semester project.

A list of possible projects is provided, and many of these have documents or Python scripts which can aid in your project. However, you are not restricted to the projects on this page. You should not use a group project being worked on elsewhere for this class. For example, if you work in someone's lab, then you can't use the work from that lab as your project. The project for this class needs to be one contained within this semester, from start to finish.

Many projects will need data. Make sure the data is available before deciding on a project. (Trust me on this. I've seen many students spend a half semester on a project that they couldn't finish because of data issues.)

3 Goal

A semester has 14 weeks. The first one is an introduction, and the last one will be for final presentations, which leaves with 12 weeks.

During each of the 12 weeks, you will turn in a status report. This will be NO MORE than 4 Powerpoint slides. The slides will address:

1. Your goals for the past week, and the status of reaching those goals.

2. A brief summary of work accomplished. The early weeks may include literature reviews.

3. Results obtained in the past week and answers to questions posed by other students.

4. Goals for the next week and an indicator as to your current momentum. On this last slide, you will paste an image of a green light, yellow light or red light. Green means that you are on-track and things are progressing. Yellow means that you are mired and could use some assistance. Red means ... well you don't want Red. It means that your project is dying a horrible and gruesome death.

Usually, these slides are made in Powerpoint, but you can use any other tool that produces a similar output (Libreoffice, Google Slides, Beamer, etc.). You can even provide a voice-over on your slides - but keep the voice to just a few minutes.

There will be 12 (or so) of these intermediate reports, and the final output of your project is a single poster presentation. The template will be provided for Powerpoint. If you are using another tool, then we may need to find a different template.

4 Questions

Normally, this class would meet in-person, and during class time each person would present their update and field questions. But due to the ongoing pandemic issues, this course is meeting asynchronously online, which makes questions and answers harder to manage.

Thus, we will do the Q&A in a different manner. Once an update is posted, students may ask questions of the provider. These questions will be part of the grade. You should ask about 12 questions throughout the semester, directing them to different researchers.

We will use the Blackboard Discussion tool to post the questions. Answers can be provided there or in the update presentations.

5 Expectations

You are expected to have a reasonable project. That is the main reason that instructor approval is required. This is not a PhD project, but it also not a review of previous works. You will need to do an appropriate amount of research.

Some programming will be required. You can't just use someone else's code and say, "Ta dum! Look at my research."

You will need access to data. Be sure of your data before you propose a project. Some resources may be huge in size, and your project may use only a subset of that data.

Some projects may not reach a successful conclusion. Welcome to the world of *research*. Your grade will then be based on your effort, as I will have to determine if you gave the project your best effort, or the project ran into problems due to laziness.

6 Grading

1. 50% Timeliness of presentations.

2. 10% Quality of effort.

3. 10% Application of theory

4. 10% Realization of the project (coding, execution of protocol, etc.)

5. 15% Quality of presentation. (Can we understand your slides?)

6. 5% Q &A

7 Dealing with the Pandemic

7.1 Illness

Students who are experiencing a longer term illness should contact the instructor as soon as possible. We will figure out the best way to see you through the semester. Accommodations are possible only if you contact me (or in serious cases - someone else contact me on your behalf) during the illness. Students who wait until December to say, "But I was sick back in October," have a much harder time getting accommodations for that illness.

7.2 Being On Campus

One of the best tools Mason has to track and understand the behavior of the COVID virus is through Mason Covid Health Check (MCHC). This is a simple webpage interface that all people associated with Mason should fill out on a daily basis. It asks a few questions and then provides a color-coded response. Before stepping foot on campus, you should have a Green response. Other colors mean that you need to pay attention to your health.

All instructors and offices at Mason can request that you show a MCHC Green before entering a classroom or office. This policy applies to students, staff and faculty.

This tool helps Mason make its plans, and so off-campus students, are asked to fill it out as well.

Please note, all students who come to campus are required to follow the university's public health and safety precautions and the procedures outlined on the university Safe Return to Campus webpage (`https://www2.gmu.edu/safe-return-campus`).

8 Assistance and Legalities

Below are just of few support services available to students. The full list is at: `https://stearnscenter.gmu.edu/knowledge-center/knowing-mason-students/student-support-resources-on-campus/`.

8.1 IT Support

If you are having difficulties with your Mason network account, or with software on the Mason network , please contact IT support: support@gmu.edu . Or pay them a visit in Innovation Hall: ITS Support Center, Innovation Hall, Room 226. You can also call them: 703-993-8870.

8.2   Academic Integrity

It is expected that students adhere to the George Mason University Honor Code as it relates to integrity regarding coursework and grades. The Honor Code reads as follows: "To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community have set forth this: Student members of the George Mason University community pledge not to cheat, plagiarize, steal and/or lie in matters related to academic work." More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found at the Office of Academic Integrity website at `http://oai.gmu.edu/honor-code/`.

8.3   Accommodations

If you are a student with a disability and you need academic accommodations, please contact Disability Services (DS) at 703-993-2474. All academic accommodations must be arranged through DS.

8.4   Digital Communication

Privacy is important for faculty and student communications. Students are required to use their Mason email when communicating their instructors. Instructors, being employees of the State of Virginia, are required to use their Mason email when communicating with students.

8.5   Freedom

This course will encourage students to respectfully present their thoughts. At Mason, we have a wonderful diversity of students providing a rich resource of education, thoughts, and growth. Through this unique Mason community, we can learn more about ourselves and our world then we could in almost every other university.

   `https://www2.gmu.edu/1stAmendment`

8.6   Respect for Diversity

Mason is a great example of a diverse society, where students and faculty can embrace the knowledge and relationships gained from being in an academic environment with people from a large variety of countries, backgrounds, experiences, heritages, and so on. All students are expected to respect people within this diverse population, and they could greatly benefit from its riches by immersing in the Mason experience. Disrespect will not be tolerated in this class.

8.7   Title IX

Notice of Mandatory Reporting of Sexual Assault, Interpersonal Violence and Stalking: As a faculty member, I am designated as a "Responsible Employee," and must report all disclosures of sexual assault, interpersonal violence and stalking to Mason's Title IX Coordinator per University Policy 1412. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as the Student Support and Advocacy Center (SSAC) at 703- 380-1434 or Counseling and Psychology Services (CAPS) at 703-993-2380. You may also seek assistance from Mason's Title IX Coordinator by calling 703-993-8730 or emailing cde@gmu.edu