**Applied Mathematics & Statistics,
and Scientific Computation Program**
William E. Kirwan Hall 3103 • 301-405-0924 • amsc@amsc.umd.edu

DATA ANALYSIS PROJECT GUIDELINES

The Data Analysis Project (AMSC 762) is designed to test the students' skills in the following 3 aspects:

- Formulating and justifying the appropriate model for the data
- Choosing the proper algorithms to analyze the data based on the selected model
- Producing a well-written report which contains both analysis results and theoretical/empirical support.

Students must request permission to enroll in AMSC 762 from AMSC coordinator. AMSC 762 is only open to Master's Non-thesis and Doctoral students in the Applied Statistics area, for whom the resulting Project serves as a Qualifying Exam component. Students who wish to enroll in AMSC 762 should have taken classes in the AMSC program for at least one semester.

PART I.
At the beginning of the semester the student will register for AMSC762. At present the section is 0101. Before attempting the "project", the student is required to watch 4 seminar presentations from the JPSM/MPSM Seminar Series (link below). These lectures, given by different faculty in the campus statistical consortium, elaborate on how data is analyzed in various fields.

Once the student has completed the lectures, he/she will write a short summary (~1-2 pages) of what was learned and then meet with the AMSC director to discuss the various methods. The student should email the AMSC Director to set up an appointment.

The lectures can be found at:
https://psm.mivideo.it.umich.edu/category/JPSM_MPSM+Seminar+Series%3E2020/149826761

PART II.

- The student will find a project advisor who will be able to provide (1) the project data, (2) a description of the scientific problem, and (3) a description of the techniques by which the data sets were sampled.
- The project advisor will send the data and descriptions directly to the AMSC Coordinator at jsadler@umd.edu. **The Project Advisor should not send the data to the student.** The purpose of this procedure is to ensure that the AMSC Coordinator can track/document the student's two-week deadline to finish the analysis and written report of the data. The student is responsible for making sure the project advisor has sent the data and descriptions to the AMSC Coordinator.

- When the student is ready to receive the data, the student will notify the AMSC Coordinator of the date the student would like to receive the data and begin the two-week analysis process. **The student should notify the AMSC Coordinator of the start date at least 1 week prior to the desired start date.**
- The project advisor will ensure the student receives no unauthorized assistance on the assignment and should have the student write and sign the Student Honor Pledge.
- **The student will be given 2 weeks to analyze the data and write an analysis.** Students can contact the AMSC Coordinator for previous student examples of the written data analysis. **The written analysis should be submitted via email or hardcopy to the AMSC Coordinator by the last day of the 2-week deadline.**
- The student will schedule a project defense which means to give an oral presentation of the implications of the findings; applications in administration, industry; etc. before a 2-person committee whose members are knowledgeable about statistics. If the defense will be held in the Math building, the student should reserve the room through Stephanie Padgett (spadgett@umd.edu, 301-405-5048, Math room 1103).
- **The 2-person committee must be composed of the advisor and at least 1 AMSC faculty.** For a listing of AMSC faculty, visit: https://amsc.umd.edu/people/faculty.html
- **At the end of the defense, the student will submit this signed form to the AMSC Coordinator:** https://amsc.umd.edu/images/documents/AS_DataAnalysisProject.pdf
- The AMSC Director will then enter a letter grade for the student.
- The Student must follow the project timeline below:

Spring 2021/Fall 2021 Timeline for Project:

Task	Spring 2021 Deadlines	Fall 2021 Deadlines
Find Project Advisor	By February 26, 2021	By September 30, 2021
View 4 seminar lectures online, write a brief summary, and meet with AMSC Director	By March 31, 2021	By October 29, 2021
Complete 2-week analysis and submit written analysis by end of 2 weeks	By April 30, 2021	By November 30, 2021
Complete project defense and submit form signed by 2-person committee	By May 14, 2021	By December 10, 2021