Applied Data Analysis
MTHS 683W: Fall 2011
Website: moodle.wesleyan.edu

WHO SHOULD TAKE THIS COURSE
This course is designed for individuals who are interested in developing skills for working with data and using statistical tools to analyze them.

WHAT ELSE YOU SHOULD KNOW
The approach is "statistics in the service of questions". As such, the research question that you choose (from data sets made available through the course) is of paramount importance to your learning experience. It must interest you enough that you will be willing to spend many hours reading about it, thinking about it and analyzing data having to do with it.

COURSE REQUIREMENTS
The course will revolve around a research project of your choosing and will offer an intensive hands-on experience in the research process. Students will develop skills in 1) generating testable hypotheses; 2) understanding large data sets; 3) formatting and managing data; 4) conducting descriptive and inferential analyses; and 5) reporting and interpreting results.

Lessons:
Rather than traditional readings and lectures, this course provides multi-media "lessons" aimed at preparing you conceptually and technically for the various steps taken in completing a research project. Lessons are presented as on-line text, graphical slides with audio overlay, and interactive exercises.

Many of these lessons are available through the Open Learning Initiative (OLI) https://oli.web.cmu.edu/ which also provides opportunities for taking non-graded self-assessments to gauge your understanding of the course material. You may use the free version or to access the links set up through Moodle, the cost of access to OLI is $25.00 USD. Visa and MasterCard credit and debit cards are accepted. *If registering with OLI, please use your Wesleyan username as your Account ID*.

The Course Key for enrollment is *QAC201-F2011*

Class Sessions:
I will be available during the class sessions to support you in completing your research project. You are also encouraged to take advantage of the support available through the Quantitative Analysis Center (located on the second floor of Allbritton). You are also more than welcome to work together.

Lectures:
Class lectures will be designed to provide students with additional substantive and practical background for completing cumulative laboratory assignments toward the completion of a research project.

Lab Assignments:
Students will be asked to complete several lab assignments during the semester. Lab assignments must be turned in on time through Moodle. Assignment made during a class session, will be due prior to the start of the next class session (i.e. by 6:30 the following Monday). Late assignments will not receive credit.

Research Presentation:
Lab assignments will build to the completion of an individual project that will be presented at the end of the semester.

Commitment to the Course:
Students are encouraged to make marked progress each week and to come to class sessions prepared with questions and planned next steps. Attendance is required.

Grades:
Course grades will be based on:
Lab Assignments (50%)
Research presentation (40%)
Attendance (10%)