

EMR 6970:

Computer Applications for Educational Research



When: Summer I 2018
Tuesdays & Thursday
5:00 – 7:30 pm

Description: The use of computer programs is an important aspect of conducting quantitative research. This course focuses on introducing three frequently used computer packages in educational research including SPSS, SAS, and R. Different stages of data analysis will be addressed including data coding, data manipulation, data visualization, and data analyzing. Built-in functions will be introduced to deal with different types of data structure (i.e., clustered and longitudinal dataset). Course materials will be presented through lecture, discussion, lab demonstration, and hands-on use of SPSS, SAS, and R.

Textbooks: Boslaugh, S. (2004). *An intermediate guide to SPSS programming: Using syntax for data management*. Sage Publications.

Newton, R. R., & Rudestam, K. E. (2012). *Your statistical consultant*. Sage.

Chambers, J. (2008). *Software for data analysis: programming with R*. Springer Science & Business Media.

Prerequisites: EMR 6650 or permission of instructor

Questions: Please email me at ya.zhang@wmich.edu