The course uses landmark studies to demonstrate the principles, methods, and applications in clinical trials, epidemiology, preventive trials of mental disorders, study of aging, and medical genetics and genomics. It uses statistical software R and SAS extensively to illustrate the concepts of variation, distribution, sampling error, association. The course takes the students to various clinical and health research settings to observe and participate in the conduct of research activities involving Biostatistics.

The students will gain extensive hands-on experience through analyzing real datasets as well as conducting an independent project in group of small size, and present findings. Students will work as biostatisticians on a final group projects and present their research and findings at the end of the six weeks.

**Sample Course Projects and Presentation**

**Project #1**
Surveillance, Epidemiology, and End Results (SEER) Project
Site: Moffitt Cancer Center and Research Institute

**Project #2**
The National Household Travel Survey Project
Site: Moffitt Cancer Center

**Project #3**
The Codon Usage Investigation Project
Site: Moffitt Cancer Center

**Project #4 and #5**
Clinical Trial Design
Site: JAEB Center for Health Research

**Project # 6**
Does Grape Fruit Juice Interact with Statin in Patients on Cholesterol Lowering Regimens?
Site: USF Biostatistics

**Project #7**
Performance of the mCDR: A Modification of the Clinical Dementia Rating Scale for Diagnosing and Staging MCI
Site: USF Biostatistics