The STAMPS course consists of lectures by experts in the analysis of molecular datasets and hands-on tutorials in the use of computational packages by their designers, and emphasizes discussion and the exchange of ideas between faculty and students. The course focuses on the use of next generation sequencing data for the analysis of microbial communities from the human and indoor microbiomes, and aquatic and terrestrial environments. Topics will include acquisition, quality control, and organization of next generation sequence data; cluster and rarefaction analyses; taxonomic assignments; statistical models for estimating microbial diversity; microbial community comparison methodology and metrics; and analysis of shotgun metagenomic data. The lectures will be augmented by a computer laboratory where students will have the opportunity to use state of the art facilities to test concepts described in the lectures series. The course serves graduate students, postdoctoral students, and established faculty from around the world.

Faculty for 2011 will include:
Gary Anderson, Lawrence Berkeley National Lab
John Bunge, Cornell University
James Cole, Michigan State University
Robert Edgar, gentleman scholar
Jed Fuhrman, University of Southern California
Susan Huse, Marine Biological Laboratory
Rob Knight, University of Colorado at Boulder
Hilary Morrison, Marine Biological Laboratory
Elmer Pruesse, Max Planck Institute for Marine Microbiology
Chris Quince, University of Glasgow
Antonis Rokas, Vanderbilt University
Patrick Schloss, University of Michigan
Yijun Sun, University of Florida
Peter Turnbough, Harvard University