HST 015 MATLAB for Medicine

Term: Summer

Course Director(s): Matthew P. Frosch
Time: T/Th 9am-12pm (7/31 - 8/30)
Location: HMS, TMEC 227
Restrictions: 1st Year HST MD Students
MIT Units: 2-0-4 [P/D/F] (G-Level Credit)

Provides a hands-on introduction to the use of quantitative methods in medicine and health research. Each session will introduce a topic in quantitative techniques, provide an application to medicine, and lead participants through an approach to modeling in MATLAB. Problem sets applying the lessons learned in this course will be assigned throughout the preclinical curriculum.

Course Summary:

Date	Details	
Tue Jul 31, 2018	Basic Computation and Graphing-Frosch	9am to 12pm
Thu Aug 2, 2018	Writing Functions; Monte Carlo Simulations; Power Calculations-Frosch	9am to 12pm
Tue Aug 14, 2018	Handling Data and Detecting Patterns; Introduction to Images-Frosch	9am to 12pm
Thu Aug 16, 2018	Using R and Image Analysis in Matlab-Frosch	9am to 12pm
	Homework #3 (due 8/16)	due by 9am
Tue Aug 21, 2018	Principle Component Analysis (PCA)-Frosch	9am to 12pm
Thu Aug 23, 2018	Signal Processing and Fourier Transforms-Frosch	9am to 12pm
Tue Aug 28, 2018	Modeling and Differential Equations-Frosch	9am to 12pm
Thu Aug 30, 2018	Clustering-Frosch	9am to 12pm