

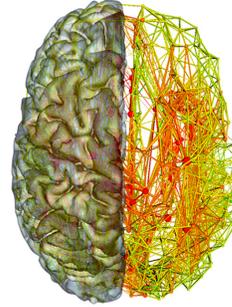
EML 4930/5930, FALL 2015

NETWORK ANALYSIS¹

(3 credit hours)



social network
(Facebook)



brain network
(van den Heuval, J. NeuroSci)

COURSE OVERVIEW

Network science studies how objects are interconnected. Some of the applications of network science include social network analysis (e.g., Facebook), modeling of epidemics (e.g., influenza), brain network, electrical power grids, and vortex dynamics. The objective of this course is to introduce students to the growing field of network science. This course will cover the basics of network analysis along with graph theory and network based dynamics and control. The instruction will also take advantage of student projects/presentations to enable the latest findings to be shared with fellow students.

CLASS LOCATION AND TIME

College of Engineering A235
12:30-13:45, Tuesday and Thursday

INSTRUCTORS

Instructor: Kunihiko Taira (office: AME216, ktaira@fsu.edu)
Teaching assistant: Aditya Nair (office: AME107, agn13@my.fsu.edu)

PREREQUISITES

The students should have completed Calculus, ODE and (basic) linear algebra (or have equivalent knowledge). Knowledge of dynamical systems is desired but not necessary.

TEXTBOOK

M. Newman, *Networks: An Introduction*, Oxford University Press, 2010

¹For ME students, this course can be taken as part of the Dynamic Systems Track and/or a technical elective.