

# Graduate Seminar

## Topics in Integrative Biology: Neural Engineering

**Joseph Ayers**

Marine Science Center, (781) 581-7370 x309

444 Richards, x4044

, Email: [lobster@neu.edu](mailto:lobster@neu.edu) <http://www.neurotechnology.neu.edu/>

Key Numbers: 52186

This course will survey recent developments in Neural Engineering through oral presentations and discussions of recent publications in the peer reviewed literature. Each presenter will present a ½ hour talk followed by a ½ hour slide-by-slide analysis/discussion by the group. The focus will be on exploration of the subject matter and development of effective communication skills.. Source material is on the Blackboard web site.

<b>Date</b>	<b>Topics/Presenters</b>
Sept 6	Organizational Meeting: Neurotechnology Joseph Ayers
13	Transcranial Magnetic Stimulation Rebecca Bonaiuto, Glen Coppersmith
20	Electronic Neurons William Orsi, Joseph Ayers
27	Artificial Muscle Kristen Severi, Colin Ashe
Oct. 4	Biomimetic Robots: CPGs Daniel Schulman, Joseph Ayers
11	Biomimetic Robots: Navigation and Orientation Glen Coppersmith, Kristen Severi
18	Learning Machines Daniel Schulman, Colin Ashe
25	Functional Electrical Stimulation; BIONs William Orsi, Joseph Ayers
Nov. 1	Neuronal Prostheses Sucharita Saha, Daniel Schulman
8	Brain Machine Interfaces Rebecca Bonaiuto, Glen Coppersmith
15	Stem Cell Implants Sucharita Saha, Kristen Severi
22	<i>THANKSGIVING</i>
29	Deep Brain Stimulation William Orsi, Colin Ashe
Dec. 6	Ethics of Neural Engineering Rebecca Bonaiuto, Sucharita Saha
13	<i>Reading Day: no Class</i>