



COURSE INFORMATION SHEET

Title of Course: Brain and Behavior

Academic Year: 2018-2019

Duration of Course: 9 weeks

Course Director(s): **Carrie Ernst, MD**
carrie.ernst@mssm.edu
Tele: 212-659-8856
Office: Icahn (East Building) L6-34

Associate Director: Mark Green, MD
mark.green@mssm.edu

Course Coordinator: **Bee Jaworski** – bee.jaworski@mssm.edu
Tele: 212-241-2777
Office: Annenberg 13-40

Mission Statement of Course:

The Brain and Behavior course will make up an important part of your studies this fall and we hope that you will find the course both educational and exciting. This is a large and diverse course, in which you will be exposed to a wide variety of topics, including neuroanatomy, neuropathology, neurophysiology, neuropharmacology, neurochemistry, neuroradiology, clinical neurology, psychiatry, and behavioral science. This course will approach the brain from many different levels and perspectives, including basic neuroscience, systems neuroscience, normal regulation of emotion and behavior, clinical disease states, and the pathology of diseased brain. Our goal is to make sure that you receive a strong grounding in the basic neuroscience and neuroanatomy disciplines being taught in this course, but as clinicians, we will be emphasizing the relationship to human diseases throughout the course. We hope that the tools that you acquire from this course will help you in your clinical approach to patients with neurological and psychiatric disorders. We also plan to show you patients that we approach from both a psychiatric and a neurologic perspective, and how both approaches can enrich your care of future patients.

Goals of Course:

The overall goal of the Brain and Behavior course is for students to gain knowledge about the anatomical organization and physiology of the CNS in order to understand how normal function occurs and compare this to disease states, both neurological and psychiatric.



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More specific goals include the following:

- 1) Provide you with a survey of basic neuroanatomy, neuropathology, neurophysiology, neurohistology, neuropharmacology and neurochemistry.
- 2) Understand the ways in which the brain is different from other organs.
- 3) Learn to use basic neuroscience tools to approach and understand patients with neurological and psychiatric disorders.
- 4) Review the current scientific basis for understanding, classifying, and treating psychiatric disease.

Objectives of Course:

Course Objective	MD Program Objective
<ul style="list-style-type: none"> • Describe how the brain is different from other organs in the human body. 	<ul style="list-style-type: none"> • Organ structure and function 1
<ul style="list-style-type: none"> • Identify major neuroanatomical structures and define the primary functions of these structures. 	<ul style="list-style-type: none"> • Organ structure and function 1
<ul style="list-style-type: none"> • Describe how specific structural and functional abnormalities of the central nervous system are implicated in neurological and psychiatric disease states. 	<ul style="list-style-type: none"> • Characteristics & mechanisms of disease 2
<ul style="list-style-type: none"> • Apply basic neurophysiologic and neurochemical concepts to understanding normal brain function as well as the pathophysiology of neurological and psychiatric disorders. 	<ul style="list-style-type: none"> • Organ structure and function 1 • Characteristics & mechanisms of disease 2
<ul style="list-style-type: none"> • Describe the diagnostic criteria for the major psychiatric disorders and identify important symptoms and management principles in clinical cases. 	<ul style="list-style-type: none"> • Characteristics & mechanisms of disease 2 • Characteristics & mechanisms of disease 5
<ul style="list-style-type: none"> • Describe the clinical features associated with the major neurologic disorders and identify important symptoms and management principles in clinical cases. 	<ul style="list-style-type: none"> • Characteristics & mechanisms of disease 2 • Characteristics &



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	mechanisms of disease 5
<ul style="list-style-type: none">• Discuss the distinction between normal behavior and psychopathology.	<ul style="list-style-type: none">• Characteristics & mechanisms of disease 5
<ul style="list-style-type: none">• Assess the relationship between the disciplines of neurology and psychiatry.	
<ul style="list-style-type: none">• Describe the major classes of medications utilized in the management of psychiatric and neurologic diseases; name specific drugs within each class; discuss the primary mechanism of action and identify both common and life threatening side effects.	<ul style="list-style-type: none">• Healing and therapeutics 3• Healing and therapeutics 4