

Cognitive Neuroscience

BiS 41.451 – Cognitive Neuroscience

Fall 2016

Prof. Jaeseung Jeong

Class: E-16-Rm220

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Synopsis

This course is intended for senior undergraduate students in the Bio and Brain Engineering department with an interest and some background knowledge in Neuroscience. Cognitive Neuroscience is a field that aims at understanding fundamental neurobiology underlying the cognitive functions including perception, attention, learning and memory, emotion, decision-making, language, and consciousness. This class provides the students with basics of cognitive neuroscience. First, it introduces Hemispheric Specialization, Sensation and Perception, and Object Recognition. Then, we study higher cognitive functions, such as Attention, Control of Action, Memory, Emotion, Cognitive Control, Social Cognition, and Consciousness. A Brief History of Cognitive Neuroscience and Methods of Cognitive Neuroscience will be briefly discussed during the class as well. We highly expect active participation in debates and discussions during the class.

Credit 3 units (3:0:3)

Grading

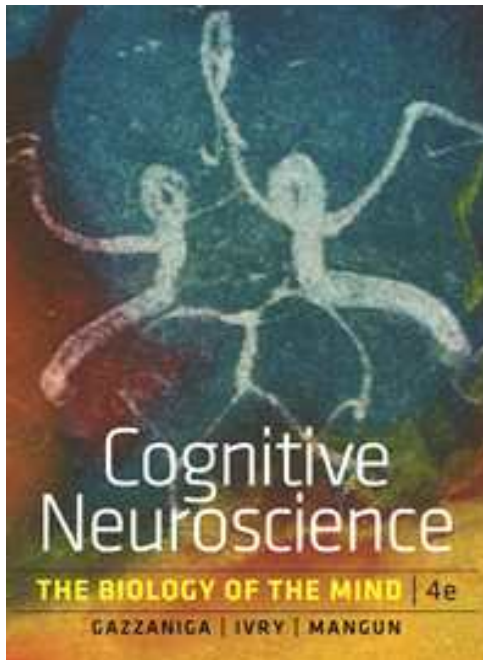
1. Mid-term Exam 40%
2. Final Exam 40%
2. Class Participation 20%

Office Hours Wednesday 12:00-2:00 pm (appointment-based)

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Textbook



Cognitive Neuroscience: The Biology of the Mind

The Fourth Edition (Hardcover ISBN 978-0-393-91348-4)

Authors: Michael Gazzaniga, Richard B. Ivry, George R. Mangun

Lecture Schedule

Week	Date	Topic	Article
1	9.5	Class Orientation	Syllabus
	9.7	Brief introduction to Cognitive Neuroscience	Chapter 1
2	9.12	Structure and Function of the Nervous System	Chapter 2
	9.14	no class (추석연휴)	
3	9.19	Methods of Cognitive Neuroscience	Chapter 3
	9.21	Hemispheric Specialization	Chapter 4
4	9.26	Hemispheric Specialization	Chapter 4
	9.28	no class (프로젝트 미팅)	
5	10.3	Hemispheric Specialization	Chapter 4
	10.5	Sensation and Perception	Chapter 5
6	10.10	Sensation and Perception	Chapter 5
	10.12	Sensation and Perception	Chapter 5
7	10.17	Attention	Chapter 7
	10.18 (make-up class)	Attention	Chapter 7
	10.19	Attention	Chapter 7
8	10.24	Mid-term Exam	Chapter 1-7

9	10.31	Control of Action	Chapter 8
	11.2	Control of Action	Chapter 8
10	11.7	Control of Action	Chapter 8
	11.9	Emotion	Chapter 10
11	11.14	no class (학회 참석)	
	11.16	no class (학회 참석)	
12	11.21	Emotion	Chapter 10
	11.23	no class (입시 휴강)	
13	11.28	Cognitive Control	Chapter 12
	11.30	Cognitive Control	Chapter 12
14	12.5	Social Cognition	Chapter 13
	12.6 (make-up class)	Social Cognition	Chapter 13
	12.7	Social Cognition	Chapter 13
15	12.12	Decision-making	Chapter 14
	12.14	Decision-making	Chapter 14
16	12.21	Final Exam	Chapter 8-14