

SEOUL NATIONAL UNIVERSITY
INTERNATIONAL SUMMER PROGRAM 2019

INTRODUCTION TO COGNITIVE SCIENCE
MWR 9:00-12:00

Instructor: Lisa K. Son
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OH: by appointment

About the Course

The purpose of this lecture/discussion course is to introduce you to the science of exploring human cognition: Our ways of coming to know about the world and about each other. This course will concentrate on the foundations of cognitive science, as well as on classic and up-to-date topics including: knowledge representation, attention, memory, language, problem solving, decision-making, and consciousness. Additionally, the course will cover chapters on the biological foundations of cognitive development, and on the breakdown of cognitive processes. The goals of this course are to introduce students to how the mind processes sensations and perceptions, how the mind categorizes information, how creativity complements problem solving. At the end of the semester, students will have gained insight on how research in cognitive science is conducted, on how normal brain functioning works, and on how abnormal brain functioning affects daily tasks.

Learning Goals

1. Becoming knowledgeable about the major concepts and debates in cognitive science, including those in the particular subject areas of attention, knowledge representations, learning, and reasoning.
2. Understanding how the brain's structure and activity relates to cognitive processes and how they are affected by brain injuries and abnormalities.
3. Becoming familiar with the basic scientific, empirical methods and some of the prominent experimental paradigms that have been used to investigate cognitive and perceptual capacities and phenomena.
4. Gaining first-hand experience with the process of scientific investigation, from the development of theory and hypothesis, through the implementation and running of an empirical experiment.

Required Texts

There will not be a required textbook, but there will be required readings which I will provide each week online. The readings listed in the current syllabus are tentative and are likely to change as the semester progresses.

Lecture Exams and Grading

Because this course will cover a large amount of material, it is crucial to attend class. If for some legitimate reason you are unable to attend class, you are advised to make arrangements with another student to acquire and review the lecture notes. Course-related materials – including .ppt slides and additional readings -- will be made available. There will be 2 quizzes (30% each) and a final exam (40%). You must be present for all exams, for their scheduled times. In *real emergency situations* you may be able to take a make-up. Each quiz/exam will consist of only short-answer questions, **largely based on lecture discussions**.

Tentative Schedule and Readings

Date	Lecture Topic	Potential Readings
June 25	<i>Opening Ceremony</i>	Welcome
June 26	The Cognitive Revolution	St. Augustine's Confessions Collins & Quillian, 1970 James' Principles of Psychology Graziano, 2016
June 27	Neural Basis/Vision	
July 1	Recognizing Objects/Attention	
July 3	Learning and Memory	
July 4	Quiz 1/Discussion	
July 8	Implicit Memory/ Memory Errors	Scoville & Milner, 1957 Terrace & Son, 2009 Luria's The Mnemonist de Waal, 2012 Loftus, 2013
July 10	Retrieval/Familiarity	
July 11	Metacognition/Comparative Cognition	
July 15	Quiz 2/Discussion	
July 17	Judgments and Decision Making	Gallup's Self Recognition in Primates Metcalfe & Greene, 2007 Frankfurt's On Bullshit Gino, 2018 Yagoda, 2018
July 18	Problem Solving/Creativity	
July 22	Consciousness	
July 24	Final Exam/Discussion	
July 25	Final Thoughts	
July 26	<i>Graduation Ceremony</i>	Congratulations