

# BMI 831 Cognitive Science for Brain-Mind Research

## On-Site Learning with Distance Learning Option

June 16 - July 5, 2014

<http://www.brain-mind-institute.org/>

Brain-Mind Institute (BMI)

Available via Internet

A survey of the psychological subjects, with an emphasis on cognitive science. Principles of learning and memory, including habituation, sensitization, classical conditioning, operant conditioning, episodic and semantic memory, skills and habits, working memory, cognitive control, executive function, emotions, observational learning, development and aging.

**Lectures:** Each lecture (pdf & video files) will be available online the next day of the lecture to registered applicants. Each lecture will take place from 9:00am-10:20am and 10:40am - noon, in Room #2, 3rd floor, Intelligence Building, Institute of Automation, Chinese Academy of Sciences, 95 Zhongguancun East Road, 100190, BEIJING, CHINA. Those who prefer to attend the live classes please send an email to the instructor.

**Instructor:** Dr. Vassilis Cutsuridis

**Course web:** <http://www.brain-mind-institute.org/bmi-831.html>

**E-mail:** [vcutsuridis@gmail.com](mailto:vcutsuridis@gmail.com)

**Prerequisites:** A bachelor degree in any discipline is generally sufficient. Physical science and social science applicants are all encouraged. This course is self-contained for the course exams.

**Text:** Mark A. Gluck, Eduardo Mercado, and Catherine Myers, *Learning and Memory: From Brain to Behavior*, 2nd edition, ISBN: 978-1429240147, Worth Publishers, New York, 2013. Each student is responsible to get the textbook from commercial vendors.

**Exams:** Three exams, one per week (Friday).

**Grading:** Composite score: 3 exams equally weighted (90%). Class participation (10%). Exam results are private and confidential. Those who successfully pass will receive a BMI 831 Certificate.

### Time Schedule

- Day 1, Monday, 06/16/2014: Chapter 1 The Psychology of Learning and Memory
- Day 2, Tuesday, 06/17/2014: Chapter 2 The Neuroscience of Learning and Memory
- Day 3, Wednesday, 06/18/2014: Chapter 3 Habituation, Sensitization, and Familiarization: Learning about Repeated Events
- Day 4, Thursday, 06/19/2014: Chapter 4 Classical Conditioning: Learning to Predict Important Events

- Day 5, Friday, 06/20/2014: Exam I
- Day 6, Monday, 06/23/2014: Chapter 5 Operant Conditioning: Learning the Outcome of Behaviors
- Day 7, Tuesday, 06/24/2014: Chapter 6 Generalization and Discrimination Learning
- Day 8, Wednesday, 06/25/2014: Chapter 7 Episodic and Semantic Memory: Memory for Facts and Events
- Day 9, Thursday, 06/26/2014: Chapter 8 Skill Memory: Learning by Doing
- Day 10, Friday, 06/27/2014: Exam II
- Day 11, Monday, 06/30/2014: Chapter 9 Working Memory and Cognitive Control
- Day 12, Tuesday, 07/01/2014: Chapter 10 Emotional Influences on Learning and Memory
- Day 13, Wednesday, 07/02/2014: Chapter 11 Social Learning and Memory: Observing, Interacting, and Reenacting
- Day 14, Thursday, 07/03/2014: Chapter 12 Development and Aging: Learning and Memory across the Lifespan
- Day 15, Friday, 07/04/2014: Exam III