

Syllabus Psychology 592: Cognition and Affective Basis of Behavior

Tuesday and Thursday, 1:25-2:40

Pullman=Murrow 53; Vancouver=VECS 209; Spokane=SAC 41

Professor: Lisa Fournier

Office: Johnson Tower 233D

Phone: 335-4415

E-mail: lfournier@wsu.edu

Web Page: <http://www.wsu.edu/~fournier/>

Office Hours: By appointment

Required Reading Materials:

Text Book: *Cognitive Psychology and its Implications*, 7th edition, by John R. Anderson

Articles: Weekly articles are assigned and are posted (or reference listed) on Lisa Fournier's webpage <http://public.wsu.edu/~fournier/> (Under Teaching/Psych 592). The assigned articles are organized by week and date of the lecture.

Please read each assigned textbook chapter and article before lecture (see also requirements below). The reading list is contained in the class schedule below. The articles assigned for a particular week are also listed in the class schedule (see below). Each student will be assigned to present 1-2 of the articles listed in the syllabus.

What is Cognition? Cognition is the collection of mental processes and activities used in perceiving, remembering, thinking, and understanding, as well as the act of using these processes. What forms the core of cognitive psychology is the assumption that human mental activities exist, and that these activities can be studied scientifically.

Purpose of Course: To expose students to both the classic and recent empirical research in different areas of cognition, and to discuss various theories proposed to account for these empirical findings. The areas of cognition that will be discussed include perception, attention, mental imagery, memory, problem solving, reasoning and decision making, and language.

Overview of Course: This course will include lectures, discussion, and formal student presentations.

Grading: Final grades will be calculated based on student performance on 2 exams (60%), 2 formal presentations (on a research article assigned; 30%), and class participation/discussion (10%).

Exams: The two exams will be take-home exams. All exam questions will be provided 1 week ahead of the exam due date, and a subset of these questions will be graded (graded questions will be the same for everyone). **Exams should be completed independently.** Exams should include the original exam question and your answer typed, single spaced.

Formal Class Presentation: Students will choose an article listed in the class schedule below. This presentation should be formal and brief—about 20 minutes. Please use an outline format or power point slides so that the class can easily follow along. For articles that are empirical, please describe the method, results, conclusions and implications. For articles that are more general (summaries of research), highlight the important points and empirical evidence that supports those points. Please rehearse your presentation ahead of time to ensure you do not go longer than the 20 minute time limit. This will allow the class to ask questions and will allow us to spend time discussing the information you present.

Exceptions to the 20 minute limit is the Baddeley, the Cowan, the Karpicke, the Barsalou, and the Norenzayan articles—please **allow 30 minutes** for the presentation of this information. **The article presentations will be assigned (in order) the first day of class.**

Class Participation: Students will be asked questions throughout the lecture period regarding the assigned readings. Please be prepared to discuss the goals, methods, results and implications of research and theories discussed in the chapters and articles assigned. Students will often be asked to think about certain information before the next class and will be expected to comment on these thoughts. In short, please come to class prepared to discuss the information assigned.

CLASS SCHEDULE*

Week	Date	Topic	Reading
1	1/14	Introductions/Course Requirements Assign Student Presentations	No Assigned Reading
	1/16	The Science of Cognition	Text: Chapter 1 Article: Miller (2003)
2	1/21	Perception The “what” and “where (or how)” pathways	Text: Chapter 2 Articles: <i>Goodale & Humphrey (1998)</i> ■ <u>Ezana</u> <i>Westwood & Goodale (2011)</i> Class Discussion
	1/23	Pattern Recognition (Face perception) Importance of context Failures in recognition Potter Lecture: Alfred Mele 7pm CUB Auditorium, Rm 177	Tanaka & Farah (1993) <i>Richler, Wong & Gauthier (2011)</i> ■ <u>Nora</u> “Free Will and Neuroscience: What Do Old-School and New Wave Studies Show?”
3	1/28	Attention and Performance <i>Visual Attention</i> - Early vs. Late Selection Theories - Visual Search - Feature Binding	Text: Chapter 3 (pps. 63-81) Articles: <i>Simons & Chabris (1999)*</i> ■ <u>Alyssa</u> Simons & Levin (1998) Class Discussion: <u>Amy</u>
	1/30	- Attending to objects/space - Binding perception/action - Emotion and attention - Embodied cognition	<i>Hommel (2004)</i> <u>Devon</u> <i>Ohman et al. (2001)*</i> <u>Candace</u> <i>Cattaneo (2009)*</i> <u>Kit</u>
4	2/4	Attention and Executive Control Dual Task Performance/ Time sharing Automaticity Intention and competition	Text: Chapter 3 (pps. 81-91) Articles: <i>#Strayer et al. (2003)*</i> ■ <u>Nora</u>
	2/6	Role of prefrontal cortex in executive control	<i>MacDonald et al. (2000)*</i> ■ <u>Christa</u> Kerns et al. (2004) <i>Glascher et al. (2012)</i> ■ <u>Jesse</u>
5	2/11	Mental Imagery - Visual/Spatial Imagery	Text: Chapter 4
	2/13	Kosslyn Article; Model	Article: <i>Slotnick, Thompson, & Kosslyn (2005)*</i> <u>Anna</u>

Week	Date	Topic	Reading
6	2/18	Representation of knowledge - Modal vs. Amodal or Abstraction vs. Instance Theories	Text: Chapter 5 Article: Barsalou et al. (2003)* ▪ <u>Nick</u>
	2/20	Abstraction vs. Instance Theories Handout Exam 1 Questions	Article: Tipper (2010)* ▪ <u>Candace</u>
7	2/25	No Class: Work on Exam (take home)	
	2/27	Exam 1 due: 3:00, Lisa's office	
8	3/4	Human Memory: Encoding and Storage Working Memory	Text: Chapter 6 (up to and including Baddeley's model)
	3/6	Baddeley's Model of Working Memory Differences between long-term, short-term and working memory	Article: #Baddeley (2003)* ▪ <u>Ezana</u> Article: #Cowan (2008) ▪ <u>Christa</u>
9	3/11	Activation and Long-Term Memory Power Law of Learning (PLL)	Text: Chapter 6 (entire) [Optional Articles: Brewer et al. (1998) & Wagner et al. (1998)]*
	3/13	Memory: Retention and Retrieval Associative Structure and Retrieval	Text: Chapter 7 (entire) Article: Karpicke et al. (2008)* ▪ <u>Emilia</u> Rhorer & Pashler (2010) Discussion: <u>Alyssa</u>
!!!!	3/17-3/21	SPRING BREAK! HAVE FUN!!	
10	3/25	Memory: Retention and Retrieval False Memories -True vs. False recognition and the medial temporal lobe -False Memories: How to Avoid	Text: Chapter 7 Articles: <i>Loftus (2005)</i> Discussion: <u>Kit</u> Dodson et al. (2000)* Discussion: <u>Anna</u>
	3/27	Hippocampal formation and Amnesia Implicit vs. Explicit Memory Multiple Memory Systems "The Cognitive Neuroscience of Human Memory since H.M."	Articles: Squire (2004)* ▪ <u>Amy</u> Squire & Wixted (2011) ▪ <u>Jesse</u>
11	4/1	Reasoning Judgment and Decision Making Dual Processing Model: Formal vs. Intuitive	Text: Chapter 10 Text: Chapter 11
	4/3	Cultural Differences in Reasoning	Article: #Norenzayan et al. (2002)* <u>Maria</u>

Week	Date	Topic	Reading
12	4/8	Emotion and Decision Making (Guest lecturer: John Hinson)	<i>Articles</i> Bechara et al. 1997 Discussion <u>Maria</u> Lowenstein et al. 2001 Discussion <u>Laena</u>
	4/10	Emotional Information & Comprehension	Neidenthal (2007)* ▪ <u>Emelia</u>
13	4/15	Problem Solving (Analogies) Expertise	Text: Chapter 8 Text: Chapter 9
	4/17	Expertise	<i>Articles:</i> Bukach, Phillips & Gauthier (2010)* ▪ <u>Laena</u>
14	4/22	Language Structure	Text: Chapter 12 Online Link and Exercise (all students, before class) ▪ <u>Nick</u> lead discussion on Exercise
	4/24	Language Comprehension	Text: Chapter 13 <u>Cubelli et al. (2011)*</u> ▪ <u>Devon</u>
15	4/29	Catch up; Course Evals; Assign Exam 2	DEAD WEEK
	5/1	NO CLASS: WORK ON EXAM	(Professor out of town-Cognition Conference)
16		EXAM 2: Due Wednesday, May 7 th , 1 pm (Email Exam: Ifournier@wsu.edu)	FINALS WEEK