

## Cover Sheet: Request 14469

### PSY4810 Psychology of Learning and memory

#### Info

Process	Course New Ugrad/Pro
Status	Pending at PV - University Curriculum Committee (UCC)
Submitter	Neil Rowland nrowland@ufl.edu
Created	11/22/2019 10:07:51 AM
Updated	4/6/2020 2:50:16 PM
Description of request	To create a new course number, at upper undergraduate level, that presents this core component of psychology in a cross-cutting way accessible to all Psychology majors, as well as to other majors with appropriate background.

#### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CLAS - Psychology 011618000	Julia Graber		11/22/2019
No document changes					
College	Recycled	CLAS - College of Liberal Arts and Sciences	Joseph Spillane	The College Curriculum Committee recycles this request, with the following changes needed: 1) adjust the weekly contact hours to three, or explain why the current number does not match credits; 2) remove "at least" from the prerequisite description (and include the current list of Psychology course prefixes); 3) course objectives should be re-done to be consistent with UF guidelines (see <a href="https://gov.clas.ufl.edu/files/College-Curriculum-Committee-Problems-Checklist.pdf">https://gov.clas.ufl.edu/files/College-Curriculum-Committee-Problems-Checklist.pdf</a> for guidance); 4) links and policies should be complete, see <a href="http://syllabus.ufl.edu/media/syllabus">http://syllabus.ufl.edu/media/syllabus</a> for guidance.	1/10/2020
No document changes					
Department	Approved	CLAS - Psychology 011618000	Julia Graber		1/29/2020
No document changes					
College	Approved	CLAS - College of Liberal Arts and Sciences	Joseph Spillane	The College Curriculum Committee approves this request, with three minor changes: 1) use "&" in the prerequisites; 2) add a "Week 15" to the weekly schedule of courses; 3) address typos in the grading scheme	2/18/2020
No document changes					

Step	Status	Group	User	Comment	Updated
University Curriculum Committee	Conditionally Approved	PV - University Curriculum Committee (UCC)	Casey Griffith	Pending removal or information regarding how grading scheme has been set.	3/18/2020
No document changes					
College	Recycled	CLAS - College of Liberal Arts and Sciences	Joseph Spillane	Please address UCC comments, then return to college level	4/3/2020
No document changes					
Department	Approved	CLAS - Psychology 011618000	Julia Graber	The requested changes have been made.	4/6/2020
No document changes					
College	Approved	CLAS - College of Liberal Arts and Sciences	Joseph Spillane		4/6/2020
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			4/6/2020
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

## Course|New for request 14469

### Info

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**Description of request:** To create a new course number, at upper undergraduate level, that presents this core component of psychology in a cross-cutting way accessible to all Psychology majors, as well as to other majors with appropriate background.

**Submitter:** Neil Rowland nrowland@ufl.edu

**Created:** 4/6/2020 1:09:45 PM

**Form version:** 6

### Responses

**Recommended Prefix** PSY

**Course Level** 4

**Number** 810

**Category of Instruction** Advanced

**Lab Code** None

**Course Title** Psychology of Learning and Memory

**Transcript Title** PSY LEARNING MEMORY

**Degree Type** Baccalaureate

**Delivery Method(s)** Online

**Co-Listing** No

**Effective Term** Earliest Available

**Effective Year** 2020

**Rotating Topic?** No

**Repeatable Credit?** No

**Amount of Credit** 3

**S/U Only?** No

**Contact Type** Regularly Scheduled

**Weekly Contact Hours** 3

**Course Description** Theoretical foundations of learning and memory and applications to various fields of psychology.

**Prerequisites** PSY 2012 & TWO 3000 level Psychology courses (i.e., prefixes CLP, DEP, EAB, PPE, PSB, SOP)

**Co-requisites** None

**Rationale and Placement in Curriculum** Learning and memory is, arguably, one of the core and cross-cutting aspects of psychology and it is therefore odd that UF Psychology does not offer such a course that is accessible to all our majors. (We do have a Neurobiology of learning and memory course PSB 4810 that is highly molecular, and is simply not appropriate for most of our majors or those from other majors). To this end, I developed this as a fully on-line course under a rotating topics number, but it has proven increasingly popular (>80 are preregistered for Spring 2020) and merits a separate course number. This course is and will be taken by seniors, and some juniors, and is in many ways integrative across many fields of Psychology - hence the prerequisites requested. This course will likely be offered both fall and Spring semesters, and could be equally effective in bricks and mortar as well as online formats.

**Course Objectives** A student who successfully completes this course will be able to:

1. Identify key findings or landmarks in the experimental study of learning and memory
2. Critically evaluate research methods and findings in the area of learning and memory
3. Apply contemporary theories of learning and memory to solve practical problems

**Course Textbook(s) and/or Other Assigned Reading** The core text is Learning and memory: from brain to behavior (4th ed, 2019) Gluck, Mercado & Myers. This is the most comprehensive text I have been able to find.

In the online course, each section of each module is accompanied by a voice over slide presentation not only explaining book materials, but selected extensions thereof.

Some sections have additional video segments, for example illustrating a concept or technique.

As noted above, students self-select ONE scholarly article per week to read and summarize.

**Weekly Schedule of Topics** Week 1-2: Introduction to Psychology of learning and memory: Includes historical foundations (Aristotle, Darwin, James, etc), birth of experimental psychology (Ebbinghaus, Pavlov, Thorndike), the school of behaviorism (Skinner, Tolman) and the cognitive school (Miller, Rumelhart). [This module has no neuroscience or clinical sections]

Week 3-4: Neuroscience of learning and memory: Includes Structure of the human brain and methods for imaging, functional aspects for learning and memory (synaptic plasticity, connectivity), manipulating brain activity (long term potentiation and depression, brain damage, drugs).

Week 5: habituation, sensitization and familiarization: dual process theory, priming, perceptual and spatial learning; heterosynaptic facilitation, hippocampal navigational neurons; stress and mood disorders, neurorehabilitation, sensory prosthetics

Week 6: Classical conditioning: basic terminology, appetitive and aversive, acquisition and extinction, cause-effect judgments, ecological constraints; cerebellum and hippocampus mechanisms of classical conditioning; drug addiction, tolerance and overdose.

Week 7: Operant conditioning: reinforcers and punishers, behavioral change, behavioral economics, reinforcer substitution; dopamine and incentive salience, dorsal striatum and S-R relationships, orbitofrontal cortex and response-outcome evaluation; drug reinforcement, treatment strategies

Week 8: Generalization, discrimination, and concept formation: categories of generalization, discrimination training, network node models, category formation; cortical plasticity and salience, hippocampus and generalization; stereotyping, medial temporal lobe dysfunction and schizophrenia

Week 9: Episodic and semantic memory: Principles governing formation of new memories, improving recall, false memory, memory failure; hippocampus and memory formation, consolidation of memory, role of frontal cortex; amnesias

Week 10: Skill memory: Perceptual-motor vs cognitive skills, practice, learning set; basal ganglia and skill learning, cerebellum and sequence learning; loss of skill capacity (neurodegenerative diseases), motor prostheses

Week 11: Working memory and cognitive control: visuospatial sketchpad and phonological loop, contrasting models of memory storage - single vs multiple systems; relative roles of dorsal and ventrolateral prefrontal cortex in memory, anterior-to-posterior gradient of activation; impairments in schizophrenia and ADHD

Week 12: Emotional influences on learning and memory: Components and models of emotion, escape learning, learned helplessness, stress and memory storage; amygdala and emotion, frontal cortex and interpretation of emotion in others; phobias, PTSD, and treatment strategies

Week 13: Social learning and memory: imitation and social contagion, social transmission of learning; mirror neurons, species differences in brain substrates of social learning; autism spectrum disorders, frontal cortex and social learning

Week 14: Development and aging: processes in infants, sensitive periods, sex-linked differences, age-related decline; genetic and epigenetic factors, hormonal mechanisms in brain, neurogenesis, neurodegeneration; structural and function impairments in Down syndrome and Alzheimer disease.

Week 15: Overview, any special topics, and final assignments

**Links and Policies** Attendance. Requirements for class attendance and make-up exams, assignments, and other

work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

(Note that since this is an online course in Canvas, completion of assignments by designated dates is

included in this requirement).

**Accommodations.** Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

UF grading policies are at <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

**Evaluations.** Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

**Grading Scheme** As noted above, approximately 67% of these points are from the weekly multiple choice (content) quizzes and 33% of points from the weekly written paper summary.

The multiple choice questions are in part from the text publisher's bank and in part my own that probe content from the module videos or slides; these questions have a range of difficulties.

The target papers are chosen by me from the recent literature and are graded out of 10 according to this rubric (which is posted): students receive feedback about their article from the grader including specific suggestions for future improvement.

Needs Improvement(0) Satisfactory (1)

Excellent (2) for each of five categories (in summary form below):

A: Summary does not mention main points of assigned article. Summary only describes one main point of article.

Summary includes all main points of article.

B: Summary lacks understanding of main concepts

Demonstrates loose understanding of main concepts. Demonstrates thorough understanding of article.

C: does not address how pertains to course work or future Summary has some explanation  
Synthesizes main points /inferences/benefits the field.

D: shorter in length than acceptable for an essay assignment.

Summary is too "wordy" - summarize more efficiently. Summarizes main points of article succinctly.

E: Poor mechanics/grammar Acceptable mechanics/grammar with suggestions Proper use of mechanics/grammar with virtually no mistakes.

**Instructor(s)** Dr. Neil Rowland