



Cognition and Instruction I PSY 625--- 01W

COURSE SYLLABUS: Fall 2024

INSTRUCTOR INFORMATION

Instructor: Shifang Tang, Ph.D.

Office Location: Henderson 201A

Office Hours: [Zoom office hours] T/TH: 11:00 am to 2:00 pm

***In-person/Zoom meetings by appointment

Changes to office hours announced on D2L

Email Address: shifang.tang@tamuc.edu

Preferred Form of Communication: Email

Communication Response Time: 24-48 hours on weekdays

Note. Emails without proper salutations or not sent from LEOMAIL will NOT be responded to.

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Reading materials will be posted in D2L.

Optional Texts and/or Materials

Additional handouts and materials will be distributed in class or placed on D2L.

Course Description

This is NOT a course on how to teach psychology or a particular content domain. The purpose of this course is to introduce students to the field of applied cognitive science. Specifically, the insights of cognition will be applied to learning and instruction in both natural and school settings.

There are numerous theories about how people learn different topics and in different settings. We will survey some of these, and focus will be given to the learning in school

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settings as many journals in this field tend to publish such studies. We will discuss some representative studies associated with learning particular domains (e.g., math, science, and reading).

Furthermore, we will discuss issues that are relevant to learning across domains. For example, are there principles of learning? What differences might different note taking methods introduce to initial learning and later review / relearning? How can we build technology into the learning process and how can we develop research along the line?

We will also discuss assessments and evaluations of learning. For example, consider the differences between near vs far transfer.

Lastly, we will briefly discuss the current and emerging development of the field, looking at the relationship of cognition, contexts, technology use /design.

Student Learning Outcomes (SLO)

1. Students will understand the scope of the field of cognition and instruction.
2. Students will be able to appreciate and critique the important approaches to the topics discussed in this course.
3. Students will be able to apply the theories and concepts learned in this course.
4. Students will get exposed to developing research agenda in cognition and instruction.
5. Students will appreciate and critique the theories and approaches discussed in our class through the lens of remarkable stories how individual learners accomplish difficult learning tasks.

Minimal Technical Skills Needed

The essential computer skills in modern life: See an example at <http://www.yti.edu/blog/top-four-essential-computer-skills.asp>

Use at least D2L, YouTube, Zoom, Google Slides, Google Sheets

Record video presentations using Google Slides

The University has professionals (e.g., Instructional Technology, CITE, library) who will help students troubleshoot and / or teach students to use technology in this class.

Instructional Methods

This course will deploy a range of instructional methods, including video lectures, collaborative learning and instruction.

Prior to each week's lecture, students are expected to at least overview the reading.

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Student Responsibilities or Tips for Success in the Course

Throughout our course, we will discuss the science of how to learn and encourage you to practice them. The following are some basics.

- Check and read class emails promptly for announcements, updates, clarifications, etc.
- Take notes while you read the assigned materials and listen to lectures. When we travel, we take our own pictures to organize our experience instead of downloading pictures online later. Similarly when we learn, we take our own notes to organize our thoughts.
- Quiz yourself often. Can you define a concept in your own words? Study the materials on a regular basis. Consider the Pomodoro technique. Set aside 20-25 minutes each time, and study.
- Take the initiative and read a few most recent research articles on the topics we discuss in our class.

GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

Makeup exams and assignments

We all come to this course with a variety of experiences, responsibilities, needs, and feelings. This means we have much to learn from each other, but it also means that we may all learn differently and at different paces. I practice a “whole learner” approach to instruction. This means that all learners in our classroom (myself included) are not just students/instructors, but people with outside lives that will both inform and possibly sometimes interfere with this class. As such, the course policies below offer options for seeking extensions, making up missed classes, and taking an incomplete (IN grade) in the course. All of these policies offer flexibility, but also ask for accountability. Both are integral to creating a productive learning experience for our entire classroom community.

If you become sick, please schedule to retake the assignments within two weeks of the due date and provide documentation of your illness. However, presentations, can be only replaced by later ones.

If you are traveling and representing the university (e.g., band members, athletes, etc.) you need to request accommodations BEFORE the exam or assignment is due, not after.

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Questions about Grades: Any questions about a grade for a particular coursework item should be brought to my attention within a week of the particular grade being posted.

Assessments

Learning Engagement, Professionalism and Good Conduct: This class will employ active learning techniques. The criteria and expectations of each activity will be announced and adjusted as the class unfolds.

Below are a few basic elements that go into class participation and discussion requirements.

1. Respond to professor's class communications promptly.
2. Maintain good attendance. While anyone can be late on rare occasions, habitual lateness is unacceptable. **Throughout our class, demonstrate that you have done your reading.**
3. Be respectful toward all members of the class and their views.
4. Demonstrate professionalism when interacting with all members of the class.

This part will be largely based on my observations, notes and impressions.

Learning Engagement Total: 8%

Presentation: This requirement *aligns with each of the 4 learning outcomes, in particular, Learning Outcome 2 and 3.* At the beginning of the semester, students will be given a list of readings and are asked to sign up which articles they plan to present. A google sheet will be made available for sign up. The presentation should be made available to the class at the beginning of each week (no later than Tues morning 10am). Each student is expected to do 2 presentations. Students are expected to collaborate.

Grading rubric will be made available at the beginning of the semester. The following are the most important criteria: a) whether present the reading accurately; b) how engaging and easy for fellow students to follow; and c) should include more than one modality (that is, beyond the mere use of words and images on the slides).

Presentation: 20%

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Assignment: *The questions aligns with each of the 4 learning outcomes, in particular, Learning Outcome 1, 2, and 3. You are NOT allowed to submit late assignment. If fo*

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some REAL emergency you must delay your submission, make sure that you contact me immediately.

Assignment Total: 40%

Remarkable Story on Cognition, Learning and or Instruction: *This requirement aligns with learning outcome 5.* The goal of this part of the coursework is to see how individuals overcome difficulties and accomplish their learning objectives in personal contexts. The quality of the story and the reflection of theories, approaches and practices are important to the success of this part of coursework. We will have more details later as we have inputs from everyone in our class.

Highlight Total: 10% points

Exams: There is one comprehensive exam. *This requirement aligns with learning outcome 1, 2, and 3.* **There will be NO after the fact make-up examinations.** If for some REAL emergency you must miss the exam, make sure that you contact me immediately.

Exam Total: 22% points.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

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ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Interaction with Instructor Statement

You are welcomed to see me before and after class, contact me via email, and schedule an office visit appointment.

If you email me and do not receive an email response within 48 hours, most likely, your email was not received.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

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If you become sick, please schedule to retake the assignments within two weeks of the due date and provide documentation of your illness. However, presentations, can be only replaced by later ones.

Academic Honesty:

Unless authorized by me, you are expected to complete all coursework without assistance from any source.

You are expected to develop *original* work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course.

Students who violate academic integrity may receive a penalty grade, including a failing grade on the specific coursework or in the course.

Contact me if you are unsure about the appropriateness of your course work.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct can be found at <https://www.tamuc.edu/student-code-of-conduct/>.

If you believe someone has engaged in behaviors that do not align with the Code of Student Conduct or you have other concerns, please visit the File a Report page at <https://www.tamuc.edu/office-of-student-rights-and-responsibilities/concerns-incident-reporting/>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:
<https://www.britannica.com/topic/netiquette>

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Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate student academic dishonesty policy
[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

Undergraduate student academic dishonesty policy
[Undergraduate Student Academic Dishonesty Form](#)

Graduate student academic dishonesty policy:
<https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesProcedures/13students/graduate/13.99.99.R0.10.pdf>

Graduate student academic dishonesty form:
<https://inside.tamuc.edu/academics/graduateSchool/faculty/GraduateStudentAcademicDishonestyForm.pdf>

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage.

Artificial Intelligence

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, Chatbots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

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Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Services
Velma K. Waters Library- Room 162

Phone (903) 886-5930

Fax (903) 468-8148

Email: StudentDisabilityServices@tamuc.edu

Website: <http://inside.tamuc.edu/campuslife/campusServices/StudentDisabilityServices/default.aspx>

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



A&M-Commerce Supports Students' Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

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Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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Department or Accrediting Agency Required Content

COURSE OUTLINE / CALENDAR

Week	Date	Topic
1	8/26	Introduction to the course Overview
2	9/02*	9/02, Labor Day- University closed. Cognitive Engagement
3	9/09	Analyzing tasks, behaviors, and representations
4	9/16	Science education and multimedia learning
5	9/23	Effective teaching
6	9/30	Text and reading
7	10/7	Technology and tool use overview
8	10/14	Technology and tool use during pandemic and future
9	10/31	Visual, embodied STEM learning and individual differences Kaleb Mathieu on thesis, oral comp and dissertation* (TBA)
10	10/28	Embodied and situated learning
11	11/04	Transfer
12	11/11	Learning analytics
13	11/18	Learning Style
14	11/25	Learner, learning materials, and task interaction
15	12/02	Summary: 2000, 2013 and 2020 beyond.
16	12/09	Final exam

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