

# PSYC 4311 Cognitive Development and Learning Syllabus

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## Instructor

Dr. Ana I. Schwartz

## Meeting time/place

TR 3- 4:20

LART 207

## Email

aischwartz@utep.edu

## Office Location

Psychology 110

## Office Hours

Tuesdays and

Wednesdays 9-10 am

## Course Content

This course will cover major theories and perspectives on the nature of human learning and cognition. Each of these theories will be discussed in terms of real-world learning situations such as a formal, educational settings. The focus will primarily be on early to late childhood however, adulthood and late adulthood will also be addressed. The content of the course will proceed from general, overarching philosophies on the nature of learning to theories of particular cognitive processes, such as problem solving, to research on specific domains in education such as reading and math.

### Topics Overview and Objectives

#### I) Perspective and philosophies of human learning and cognition

##### A) Content

- 1) Thorndike
- 2) Piaget
- 3) Schema theory
- 4) Vygotsky
- 5) Information processing

##### B) Objectives

- 1) Students will demonstrate knowledge of key assumptions of each perspective and philosophy
- 2) Students will critically analyze perspectives and philosophies

#### II) Cognitive Processes

##### A) Content

- 1) Memory
- 2) Problem solving
- 3) Intelligence, aptitude, expertise

##### B) Objectives

- 1) Students will demonstrate knowledge and understanding of key processes that underlie each major, cognitive process
- 2) Students will demonstrate knowledge and understanding of how each component process works together

#### III) Subject Areas

##### A) Content

- 1) Reading
- 2) Math
- 3) Scientific understanding

##### B) Objectives

- 1) Students will demonstrate knowledge and understanding of the changing approaches to how these subject areas are taught and the political underpinnings of these changes throughout the decades
- 2) Students will synthesize instructional approaches to these subject areas with the cognitive processes that underlie them.

## Required Text

Cognitive Development and Learning in Instructional Contexts (3<sup>rd</sup> Edition)

**Assessment**

- 1) Open-ended quizzes: 30% of overall grade
  - Quizzes will be delivered in class and take about 15 minutes.
  - Quizzes will involve writing a brief essay (a couple paragraphs)
  
- 2) Term paper pieces: 30% of overall grade
  - At 5 points throughout the semester students will submit one, first draft, component of the final term paper
  - Each submission will correspond to one of the 5 elements required in the term paper (see below)
  - These submissions will be considered initial drafts; allowing for further editing and modifications in the drafting of the final term paper submission
  
- 3) Final term paper: 25% of overall grade
  - The goal of this paper is to demonstrate an in-depth understanding of the cognitive processes that underlie learning in a classroom setting, how these develop and implications for instruction. This paper shall reflect analysis and synthesis. Focus on one content area- it must be one covered in the text
  
- 4) Class participation and critical thinking: 15% of overall grade
  - At the end of each class students will submit a four sentence statement summarizing what was learned and a brief reaction.
  
  - Components:
    - o Describe the key cognitive processes that underlie achievement in the content area
    - o Describe major developmental milestones
    - o Describe instructional implications- including suggestions for best practices
    - o Summarize and critique instructional approaches within the US educational system. This must include explicit connections between approaches and what is known about the cognitive nature of the content area.
    - o Integrate outside resources (articles, chapters, etc)

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**Course Schedule**

<b>Week</b>	<b>Subject</b>	
1	Introduction	
2-3	Chapter 2: Theories of cognitive development	
4-5	Chapter 3: Memory	
6-7	Chapter 4: Problem Solving	March 3 <sup>rd</sup> h: 1 <sup>st</sup> element of Paper due
8-9	Chapter 7: Reading; Chapter 8: Reading comprehension	March 17 <sup>th</sup> : 2 <sup>nd</sup> element of Paper due
10-11	Chapter 10: Mathematics	March 31 <sup>st</sup> : 3 <sup>rd</sup> element of Paper due
12-13	Chapter 11: Scientific Thinking	April 14 <sup>th</sup> : 4 <sup>th</sup> element
14-15	Individual Differences (Chapters 6 and 13)	April 28 <sup>th</sup> : 5 <sup>th</sup> element