

ACU COLLEGE OF BUSINESS ADMINISTRATION

COURSE SYLLABUS

HON 402/412.01: BEES, BRAINS, & BAD BEHAVIOR: BIG IDEAS IN COGNITIVE SCIENCE

WEEKEND COLLOQUIUM: SEP 26-28

1

Instructor:	Dr. Ryan Jessup Assistant Professor of Management College of Business Administration	Office Hours:	MW: 1:30-3:30; T: 9:30-11, 1:00-2:30; Or By Appointment
--------------------	--	----------------------	--

Office:	262 Mabee Business (BA)	Office Phone:	325.674.2569
Classroom:	316 Mabee Business (BA)	Email:	ryan.jessup@acu.edu

Course Description: How does the behavior of bees resemble neural activity? How do people with no memory manage to learn new things? Why do we train our children to have tantrums and what can we do to end it? What is the proper way to reason and does anybody actually follow it?

This seminar-style course is a weekend colloquium that introduces students to big ideas in the interdisciplinary field of cognitive science, a field at the intersection of cognitive psychology, neuroscience, artificial intelligence, economics, and philosophy. We will discuss these ideas and their implications in our world, with a final emphasis on applying some of the concepts in order to improve our lives as well as the lives of those around us. We will also generate ideas on how to explore and discover new insights in science, philosophy, or religion.

Proverbs 4:7-8 NIV: The beginning of wisdom is this: Get wisdom. Though it cost all you have, get understanding. Cherish her, and she will exalt you; embrace her, and she will honor you.

My Goals for Students in this class:

- To gain an increased interest in cognitive science concepts
- To gain an understanding of general cognitive science concepts
- To consider how cognitive science concepts are applicable to them
- To explore new cognitive science ideas and how to test them

ADA Statement: Abilene Christian University and The College of Business Administration comply with the Americans with Disabilities Act in making reasonable accommodation for qualified students with disability. If you have an established disability as defined in the Americans with Disabilities Act and would like to request accommodation, please see me as soon as possible.

Format: Class time will generally consist of class discussion, student presentations, brief professor presentations, and experiential exercises. Being prepared for class (e.g., reading the assigned material) is expected.

Prerequisites: None

Text and Supplements: Feynman, R.P. (1985). Surely You're Joking Mr. Feynman! New York: W.W. Norton & Co.
Additional research articles will be provided

Grade Composition: Your grade will be computed on the following basis:

Activity	Value
Book Reflection Paper	15%
Article Presentation	15%
Course Reflection Paper	20%
Research Prospectus	20%
Attendance	15%
Participation	15%

Grading System

Letter Grade	Semester Combined Average
A	90 or above
B	80 – 89
C	70 – 79
D	60 – 69
F	Below 60

Course Assignments and Policies:

Book Reflection Paper

Students will complete a 2-3 page (max) double-spaced reflection paper on the assigned text by Richard Feynman. The paper can focus on the book as a whole or address 1-2 chapters in greater detail.

Article Presentation

Pairs of students will be assigned to give a 20 minute research article presentation. The presentation should clearly explain the findings and allow for discussion.

Course Reflection Paper

Students will complete a 2-4 page (max) double-spaced reflection paper on the entire course within one month of the course completion. Students will be expected to reflect on the course as a whole and also highlight a few topics of particular interest to them. If nothing was of interest, ideas for curriculum improvement may instead be offered.

Research Prospectus

Students will complete a 2-3 page (max) double-spaced research prospectus that introduces an area of interest, a relevant hypothesis, and a research design to test it.

Participation

Participation is essential to the success of this learning experience and will be considered an important element in the evaluation process. This includes your involvement in class discussion, having a good attitude, providing feedback during and after presentations, and completion of in-class assignments. A participation score will be awarded based on preparedness, attentiveness and appropriate contribution to discussion.

Attendance

Due to the compressed nature of the course, attendance at all hours is expected.

Academic Dishonesty

See COBA Honor Code below.

Honor Code ACU College of Business Administration

► *Objective*

COBA faculty, staff and students will strive to proclaim in their lives competence, character and community. In joining COBA, students, faculty, and staff covenant to abide by the following ethical principles.

► *Competence*

To lead and serve well requires competence. And to become competent requires diligence and hard work. We owe it to all who have prepared the way and who will follow in our footsteps, to be good stewards of opportunities and resources. Thus, in all you do: set priorities, seek excellence and professionalism in your work, satisfy requirements, and take responsibility for your learning and performance. You cannot build competence if you lie, cheat, steal, or tolerate those who do.

► *Character*

A reputation of good character is built slowly through testing, yet can be destroyed in an instant by compromise or careless work, just as it can through injustice. Guard your character; it is worth more than a grade or promotion. “A good name is more desirable than great riches; to be esteemed is better than silver or gold” (Proverbs 22:1). You cannot build character if you lie, cheat, steal, or tolerate those who do.

► *Community*

A spirit of fellowship and mutual encouragement holds each community member accountable. Accountability leads to a healthy community through adequate preparations for the tasks at hand, respectful truthfulness in all situations, and adding value to the tasks at hand. As a community, we must hold each other accountable to the principles of competence, character, and community. You cannot build community if you lie, cheat, steal, or tolerate those who do.

We support ACU’s Academic Integrity Policy

(www.acu.edu/campusoffices/studentlife/documents/Acad_Integ_Policy_Fa.pdf). This important policy offers examples of academic infractions and a process for assigning consequences and voicing appeals. Ignorance of this policy is never an excuse. Individual instructors will define course specific definitions, however, in general you should avoid:

- 1) **Plagiarism** - Copying or even paraphrasing words or ideas from another source (including current or past students) without giving adequate credit.
- 2) **Lying** - Inventing data or sources or making false attributions about the origin of material or offering a deceptive reason for an absence or delay in the completion of academic work.
- 3) **Cheating** - Facilitating or participating in any process that circumvents the intent of any exam, test, quiz, paper, or assignment.

Any dishonest act observed or reported will be investigated and if proven, be reported in administrative offices and records, and may be subject to any or all of the following outcomes based on severity:

- 1) A zero for the assigned work
- 2) A failing grade for the course
- 3) Dismissal from the university

Ratified by Faculty: 11/18/2004

Tentative Class Outline

DATE	CLASS ACTIVITY
Fri Sep 26	Introduction
	Foundational Ideas
	Parsimony and Overfitting
	Regression to the Mean
	<i>Student presentation: Feynman, 1985</i>
	Bayesian Reasoning
	<i>Student presentation: McKenzie et al., 2002</i>
Sat Sep 27	Memory
	Repressed Memories
	<i>Student presentation: Cooney & Gazzaniga, 2003</i>
	Memory-less learning
	Forgetting as a Feature
	<i>Student presentation: Griffiths et al., 2007</i>
	Learning
	How to Train a Tantrum
	Exploration vs. Exploitation
	<i>Student presentation: Schultz et al., 1997</i>
	<i>Student presentation: Karpicke & Blunt, 2011</i>
Sun Sep 28	Decision Making
	Mate Choice
	Decision Field Theory
	<i>Student presentation: Olds & Milner, 1954</i>
	<i>Student presentation: Britton et al., 2002</i>
	Consciousness
	<i>Student presentation: Owen et al., 2006</i>
	Concluding Thoughts and Wrap-up