

## BEHV 3200 – SYLLABUS SCIENCE SKEPTICISM & WEIRD BEHAVIOR

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<b>OFFICE HOURS:</b>	By appointment only		

### REQUEST FOR ACCOMMODATIONS:

The Department of Behavior Analysis, in cooperation with the Office of Disability Accommodation, gladly complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. *You are required to present your written request for accommodation within 1 week of the first class period.*

### PURPOSE:

In this class we will utilize scientific critical thinking to examine the causes of various strange phenomena, including alleged paranormal events, magic, superstition, mystery illness, bogus therapies and pseudoscience. The main goal is to teach you how to think about weird things when you encounter them.

### OBJECTIVES:

By the end of this course, my goal is for students to be able to do the following:

- Describe 3 scientific paradigm shifts that have occurred within the last 1000 years and explain why they happened.
- Describe the importance of temporal and spatial contiguity in relation to perceiving weird things.
- Describe how the environment selects superstitious behavior in organisms.
- Describe the role that uncertainty plays in why people believe weird things.
- Describe the “law of non-contradiction” and why it must be true.
- Describe differences and similarities between logical and physical possibilities.
- Describe at least two principles of critical thinking.
- Define “knowledge” and how it relates to evidence & belief.
- Demonstrate commonsense skepticism by proportioning your belief to the evidence.
- Define the “criteria of adequacy” and use them evaluate competing theories.

### SOURCE MATERIALS:

Schick, T. & Vaughn, L. – *How to think about weird things 7<sup>th</sup> edition.*

ISBN-10: 0078038367

ISBN-13: 9780078038365



## ACTIVITIES:

- Pre-Post Paranormal Profile Questionnaire
- Reading Assignments
- Lectures, Videos, Discussions
- Quizzes

## CLASS ATTENDANCE:

- **Class attendance is mandatory.**
- To be counted as present in class each student must sign an attendance sheet.
  - Each student must sign the attendance sheet for themselves only. (i.e. don't sign for your friends).
  - Students caught signing the attendance sheet for another student will face serious sanctions from this university.
  - Students who arrive during the last 30 minutes of class will not be allowed to sign the attendance sheet.
- Students can have up to 3 unexcused absences for the semester without penalty.
- **If a student has greater than 3 unexcused absences, the following sanctions will be applied:**
  - 4 unexcused absences will result in a drop of 1 letter grade. (e.g. an A becomes a B)
  - 5 unexcused absences will result in a drop of 2 letter grades. (e.g. an A becomes a C)
  - 6 unexcused absences will result in a drop of 3 letter grades (e.g. an A becomes a D).
  - 7 unexcused absences will result in an automatic course fail (e.g. an A becomes an F).

## POINTS:

### ASSIGNMENT & POINT STRUCTURE

ASSIGNMENT	OPPORTUNITIES	POINTS
PARANORMAL PROFILE	2 X 25 POINTS	50
READING ASSIGNMENTS	5 X 10 POINTS	50
QUIZZES	3 X 100 POINTS	300
BONUS QUESTIONS	3 X 10 POINTS	30
<b>TOTAL POSSIBLE POINTS</b>		430

## GRADES:

### GRADE STRUCTURE

A	360-400
B	320-359
C	280-319
D	240-279
F	239 or below

## COURSE CONTENT:

### INTRODUCTION & SYLLABUS REVIEW

In this section students will learn what the course is about and will be introduced to a general overview of the syllabus and what is expected of them in this class.

### **SUPERSTITION & WEIRD BELIEFS**

In this section students will learn what is defined as weird. The topics covered in this section do not appear in the text book and are only covered during class time and on the lecture notes. Topics include: history of superstition & magic, scientific study of superstitious behavior, superstition within different professions & demographics. Students will learn about the role that temporal and spatial contiguity plays in the selection of superstitious behavior and why humans in particular are prone to believing weird things.

### **SCIENCE, THEORY & PARADIGM SHIFTS**

In this section students will be introduced to the concept of the *paradigm shift* and how this relates to technological and epistemological developments in the history of science and the search for truth. This story will be told in the context of how the field of cosmology has evolved over the past 1000 years. Students will learn the difference between a naturalistic explanation of nature and a supernatural explanation of nature and why one is better than the other.

### **QUIZ I**

QUIZ I will cover everything discussed in the last three sections. Most of the material on the quiz cannot be found in the text book. The information on this quiz comes mostly from lectures and the lecture notes. The quiz will be taken on Web CT and must be completed on your own time. You will have 2 hours to complete the quiz once you begin. The quiz is composed of multiple-choice and fill-in-the-blank questions. The quiz is worth 100 points but there is a bonus question included that is worth 10 extra points. This means that there is 110 points possible on this quiz.

### **LOOKING FOR TRUTH IN PERSONAL EXPERIENCE**

In this section, students will learn that, “seeing is not always believing”. Students will learn how it is possible for someone to “sense” something is isn’t there and to “remember” something never happened. Students will learn about the conditions under which one may provisionally accept personal experience as being real and the conditions under which one should withhold having an opinion one way or another.

### **THE POSSIBILITY OF THE IMPOSSIBLE**

In this section students will learn the differences and similarities between physical & logical possibilities, students will be introduced to the laws of thought and the principles of critical thinking that are derived from them. Students will learn that there are limits to what is possible and what isn’t and why certain things must be true and other must be false.

### **QUIZ II**

Quiz II will cover everything discussed in the last two sections. The information on this quiz comes directly from the textbook, lectures, lecture notes and videos I may have shown students in class. The quiz will be taken on Web CT and must be completed on your own time. You will have 2 hours to complete the quiz once you begin. The quiz is composed of multiple-choice and fill-in-the-blank questions. The quiz is worth 100 points but there is a bonus question included that is worth 10 extra points. This means that there is 110 points possible on this quiz.

### **KNOWLEDGE BELIEF & EVIDENCE**

In this section students will learn the definition of “knowledge” and why it is important. Students will learn what is required for something to be considered knowledge and they will learn about the methods that have proven most fruitful at acquiring it. Students will learn how to evaluate evidence and to use it as the reasons for believing something is true.

### **RELATIVISM TRUTH & REALITY**

In this section, students will learn about the philosophies of relativism & objectivism and how they differ as they relate to what is real and what isn’t. Students will learn how to recognize arguments representative of objectivism & relativism, and they will learn how these different ways of looking at the world have affected our culture and other cultures around the world. Students will learn how the laws of thought show that one way of looking at the world must be true and the other must be false.

### **SCIENCE AND IT’S PRETENDERS**

In this section students will learn how to decide whether one theory is better than another when there are good reasons to believe that both may be true. Students will be introduced to the “criteria of adequacy” as a method for choosing one competing theory over another. Students will learn to tell the difference between

science & pseudoscience by applying the criteria of adequacy to a wide variety of real life examples.

### QUIZ III

QUIZ III will cover everything discussed in the last three sections. The information on this quiz comes directly from the textbook, lectures, lecture notes and videos I may have shown students in class. The quiz will be taken on Web CT and must be completed on your own time. You will have 2 hours to complete the quiz once you begin. The quiz is composed of multiple-choice and fill-in-the-blank questions. The quiz is worth 100 points but there is a bonus question included that is worth 10 extra points. This means that there is 110 points possible on this quiz.