

Spectrum Program Two-Week Session

Course Title: Brain & Behavior: Introduction to Psychology

Course Description

Why do people do what they do? Why are we the way we are? What makes some behavior “normal” and other behavior “abnormal?” This class focuses on the structures and functions of the brain, neurons, and nervous system, the relationship between brain activity and thought and behavior, and the role of biological, environmental, social, and individual factors in psychological experience. By participating in dynamic lectures, group activities, debates, and hands-on projects, students examine key theories, individuals, and experiments in the field of psychology in order to gain a better understanding of scientific research and psychological thought. This is an excellent introduction for students interested in behavioral sciences or advanced-level psychology courses.

Essential Questions

- What is the relationship between brain activity and behavior, sensation, cognition, and psychological health?
- How do biological, environmental, social, and individual factors work together to guide one’s psychological experience and development?
- What major individuals, theories, and experiments have been significant in the evolution of the field of psychology?

Outcomes

Upon successful completion of this course, students will know:

- A brief history of psychology and the major individuals, theories, and studies that have contributed to the development of the field;
- Theories of personality, development, emotion, motivation, dreaming, learning, and intelligence;
- The basic structures and functions of neurons and the brain;
- The various schools of thought in psychology along with key thinkers from each perspective;

Upon successful completion of this course, students will understand:

- How the brain receives, processes, stores, and retrieves information;
- How the brain, mind, behavior, thought, and emotion are distinct yet related;
- How genetics and the environment impact human development and experience;
- How the social situation affects individual development, experience, and choices;
- How psychology qualifies as a scientific discipline;
- How mental illnesses are diagnosed and treated;
- How psychology has evolved as a field and informed how we understand ourselves and others.

Upon successful completion of this course, students will be able to:

- Describe the methods of research in psychology, evaluate each method’s strengths and weaknesses, and design studies to be conducted in class;
- Use an understanding of memory and cognition to create study tips for future use in school;
- Use social psychology to identify and solve real-world problems;
- Use theories of personality, development, and intelligence to reflect on their own strengths, weaknesses, goals, and characteristics;

- Apply concepts relating to development and personality, along with criteria from the DSM-IV-TR, to create psychological profiles and diagnoses of fictional characters.

Instructional Strategies

This course will feature a variety of instructional strategies based on theories of engaging pedagogy, learning styles, and multiple intelligences. Teaching methods will include facilitated lecture, video clips, flexible grouping, jigsaws, reflective writing, research and expository writing, structured debates, free discussions, case studies, experiments, student presentations, games, and kinesthetic activities in the classroom and outdoors.

Resources and Materials

• Articles

A variety of articles from scholarly journals, newspapers, popular magazines, and other sources will be provided in a course pack.

• Books

Excerpts from the following will be provided in a course pack:

Gladwell, M. (1998). *Outliers: A story of success*. New York: Little, Brown and Company.

Mulholland, N.P. (2007). *The psychology of Harry Potter: An unauthorized examination of the boy who lived*. Dallas: BenBella Books.

Sacks, O. (1998). *The man who mistook his wife for a hat: And other clinical tales*. New York: Touchstone.

This book has been used for reference by the instructor in designing the course curriculum:

Zimbardo, P., et al (2006). *Psychology, Advanced Placement edition*. New York: Addison Wesley.

• Web sites

- www.similarminds.com (personality tests)
- <http://library.thinkquest.org> (interactive diagrams and activities)
- <http://www2.psych.ubc.ca/~rensink/flicker/download/> (change blindness demonstrations)
- <http://psychology.learnhub.com/> (various psychology materials)
- <http://www.psychology.iastate.edu/~glwells/homepage.htm> (eyewitness testimony critique)
- <http://learn.genetics.utah.edu/content/addiction/drugs/mouse.html> (effects of drugs on the brain)
- <http://www.webmd.com/video/sleep-personality> (sleep and personality, other sleep videos)
- <http://www.psychologytoday.com/tests> (various psychological assessments)
- <http://www.pbs.org/wnet/brain/> (interactive site on the brain)
- <http://abcnews.go.com/whatwouldyoudo> (social psychology dilemmas)

• Other Media

Clips from the following videos will be used in class:

The Secret Life of the Brain

Secrets of the Wild Child

Basic Instincts: The Milgram Experiment Revisited

The Exorcism of Emily Rose

The Brain (PBS)

Secrets of the Mind (PBS)

• Materials

Students should have a folder/binder and notebook for each class session

Student Assessment

• Pre-Assessment

Pre-test on basic psychological concepts, names, and theories
Brain diagramming

- **Documentation of Learning**

Quizzes on concepts covered in each unit

Unit 1: dead psychologist roundtable discussion, article discussion

Unit 2: orange brain surgery, neuron demonstration, article discussion

Unit 3: sense presentations, article discussion

Unit 4: personality reflection, blog, article discussion

Unit 5: disorder posters, article discussion

- **Post-Assessment**

Post-test

Mock final exam

SAMPLE

Course Overview

Unit	Questions	Concepts/Topics	Activities
1 – Introductions	How has the field of psychology changed over time? How do the various perspectives of psychology influence our understanding of human experience and development?	History of psychology Major perspectives Famous names Scientific method Experiments / studies Psychology in everyday life	Lecture on history The House that Psyc Built Article: “How Prozac Slew Freud” Article: “What Students Learn At Hogwarts” Psyc in the Media Dead Psyc Roundtable
2 – What’s On the Inside	What are the major structures and functions of the brain? How does the brain communicate internally and with the body? How do we know what’s happening in the brain?	Nervous systems Brain structures Neural structures Neurotransmitters Imaging technology	Lecture on brain parts Online demos and my MRI Brain balloon & skull coloring Charades Review packets and diagrams Orange brain surgery Neuron demo and skits Article: “Curious Case of Phineas Gage” Article: “Postcards from the Brain” Choice of three additional articles
3 – How We Experience What We Experience	How does stimulation become sensation? What is the relationship between sensation and perception? How do the senses work? Why is sleep necessary and how does it affect us?	Sensation, perception Transduction, thresholds Gestalt theory Vision Hearing Pain theories Sleep cycle Dream theories	Article: “The Pain Gate” Article: “Phantoms” Article: “Amputee Wannabes” Article: “Why We Sleep” Sense lecture and demonstrations Illusions, online demos Dream log
4 – Why We Are the Way We Are	What environmental and biological factors influence personality, motivation, and development? How do individual and social factors influence behavior? How can we change our motivations, emotions, and personalities?	Parts of emotion Microexpressions Theories of motivation Theories of development Social psychology concepts Personality theories	Lecture on personality, emotion, social psych Personality inventory and reflection Motivation case study Video: “Milgram Revisited” The psychology of genocide Video clip: “Lie to Me” (deception detection) Article: “The Myth of the Teen Brain” Article: “Lie to Me” Article: “Birth Order” Article: “A Nation of Wimps” Article: “Facebook Commentary” Video: “Sleep Personality” Choice of three additional articles
5 – When Things Go Wrong	How are psychological disorders classified, diagnosed, and treated? What makes behavior normal or abnormal?	Using the DSM Major disorders Treatment options	Video: “The Exorcism of Emily Rose” Article: “Disorders Through a Lifetime” Article: “Antidepressants Do/Don’t Work” Choice of at least three additional articles Disorder posters

Schedule

Date	Topic(s)	Morning Activities	Afternoon Activities	Homework
Monday July 18	Unit 1 – Introductions (perspectives, scientific method, types of studies, history, famous names)	Icebreakers Psychology in real life Lecture on perspectives Examples of pseudopsyc Designing studies	Roundtable research and planning (computer lab)	Read “How Prozac Slew Freud” and “What Students Learn at Hogwarts”
Tuesday July 19	Unit 1 – Introductions (perspectives, famous names) Unit 2 – What’s On the Inside (brain structures, functions, imaging)	Review essential questions Finish planning roundtable Brain lecture/diagrams Secret Life of the Brain	Dead Psyc Roundtable Brain balloon review MRI / skulls / quiz	(study session in computer lab) Read “The Curious Case of Phineas Gage” and “Postcards from the Brain” as well as any three brain articles of your choice
Wednesday July 20	Unit 2 – What’s On the Inside (brain structures, functions, neurons)	Review essential questions Talking Heads – articles Share colored skulls Brain scenarios Orange brain surgery	Neuron lecture / demo Neuron skits Mouse Party demo Brain Charades	Review brain stuff
Thursday July 21	Unit 3 – Why We Experience What We Experience (sensation, perception, senses, consciousness)	Review essential questions Sense/perception lecture Demos and experiments Sleep/dreams discussion	Sense presentation research and planning (computer lab)	(study session in computer lab) Read required articles and finish planning presentations
Friday July 22	Unit 3 – Why We Experience What We Experience (senses) Unit 4 – Why We Are the Way We Are (emotion, personality, development)	Review essential questions Sense presentations Talking Heads – articles Quiz on Units 1-3	Emotion lecture/demo “Lie to Me” clip and articles on deception Birth order lecture, basic personality information	Talk to family about birth order and personality
Monday July 25	Unit 4 – Why We Are the Way We Are (emotion, motivation, personality, development)	Review essential questions Lecture notes Sleep personality Discuss teen brain article	Personality inventory (computer lab) Nation of Wimps article and discussion	Personality reflection
Tuesday July 26	Unit 4 – Why We Are the Way We Are (social psychology)	Review essential questions Social psyc lecture Milgram Revisited video Nazi DBQ/Rwanda Radio	Finish DBQ Read choice of articles and blog comments (computer lab)	(Study session in computer lab) Quiz on Unit 4
Wednesday July 27	Unit 5 – When Things Go Wrong (abnormal psychology)	Lecture on abnormal psychology / DSM Read and discuss Harry Potter and Disorders Across a Lifetime articles Assign poster topics	Poster Research (computer lab) Video: “The Exorcism of Emily Rose”	Find additional information and materials for posters
Thursday July 28	Unit 5 – When Things Go Wrong (abnormal psychology)	Finish “Emily Rose” and discuss psychology and spirituality Finish poster research (computer lab)	Poster presentations Therapy options Discuss antidepressant articles	(Study session in computer lab) Read choice of three articles
Friday July 29	Course Review, Now What?	Discuss articles, review course, final quiz	Using psychology to serve others, careers in psychology, course evaluation	None!

CTD Statement on Third-Party Web Sites

Instructors are required to thoroughly review any third-party web sites they intend to use in their courses for inappropriate content. However, because web content continuously changes, CTD disclaims any responsibility for any of the content contained on third-party web sites used in course materials. If you become aware of anything that may be inappropriate, please notify CTD staff immediately.