# PSYCHOLOGY 2301

A STUDENT SUPPLEMENTARY HANDBOOK

TO ACCOMPANY

# The Science of Psychology

By

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## WHAT TO KNOW ABOUT STUDYING PSYCHOLOGY

## TEXTBOOK

To succeed in this course, you must have the appropriate textbook. There are several textbooks currently in use by instructors of PSYC 2301 at Houston Community College. Check your instructor's syllabus to be certain that you have the textbook s/he has specified.

## THE PURPOSE OF THIS HANDBOOK

At Houston Community College, PSYC 2301: Introduction to Psychology includes a core set of topics and concepts. This material is covered in all classes at all campuses and is tested in a comprehensive final examination at the end of the course. This Supplementary Handbook is intended as a guide to the specific concepts, terms, and objectives representing the core topics that will be covered on the departmental final exam. You are encouraged to use this Supplementary Handbook as your guide to prepare for the final exam by responding to the Learning Objectives and defining the Key Terms.

## **CLASS PREPARATION AND STUDY GUIDELINES**

The study of psychology is not hard, but there is a lot of material to learn. Students are expected to keep up with all of the assigned reading. You should understand the material and be able to relate it to real human behavior. The information presented below is designed to help you learn the subject by providing the kinds of study hints you can employ successfully in any college class you take.

## HOW MUCH TIME SHOULD I SPEND STUDYING PSYCHOLOGY?

To be successful, a good guideline for any college class of the amount of time you need to invest outside of class is two hours for each hour you spend in class. If you can make this commitment, you should encounter no serious problems in completing all assignments and preparing comfortably for tests. You should spend your time doing the following:

## Read Ahead

The best starting place is the Course Schedule in your syllabus. It will specify the material that needs to be covered in the sequence deemed most appropriate by your instructor. You should always maintain a disciplined reading schedule so that you can stay current with assigned readings; falling behind in your reading can be disastrous. You should read ahead all the material that will be covered in the next class. This reading will acquaint you with the Learning Objective Questions and the Key Terms that will be covered in class. With this knowledge, you will be prepared to ask questions and discuss relevant topics.

## Read Effectively

Create a comfortable reading environment for yourself. Avoid distractions and interruptions. Be alert and attentive. Don't rush yourself. These "little things" will increase your comprehension of the subject. Use your *Supplementary Handbook* as a

guide for your reading. Keep a dictionary by your side to look up any unfamiliar words. Remember, as in sports, music, dance, or other arts, learning takes time and effort; the more you put in, the more you will get out of the learning process.

## SHOULD I ATTEND CLASS?

Studies indicate that students who attend their classes do better than students who do not attend. In class, you will not only cover important course-related information, but, additionally, announcements will be made, due dates assigned, and study suggestions offered. In college, you are largely responsible for your own learning. Your instructor is a facilitator. Use class time to ask questions, seek clarification, and participate in discussions. The more involved you are in your own learning, the more fruitful the activity will be, and the more you will learn.

## WHAT SHOULD I DO DURING CLASS TIME?

There are several things you can do to improve your chances of being successful in your class. You are in control of all of them, so do the following things to maximize the benefits of being in class.

## Be On Time

The start of class is an important time. Be prepared to take notes, participate, or take a test. Tardiness is disruptive to you and your classmates.

## Take Good Notes

Good note taking keeps your mind focused on the subject being discussed. Attentiveness should lead to better comprehension. Note taking provides you with documentation about what the instructor feels is the most relevant, important, difficult, or interesting information about a subject. You should couple your notes with related text material for a comprehensive understanding of the subject. Use your notes to prepare for assignments and tests. Make sure your notes are legible, thorough, and organized.

## Participate in Class Discussions

Whenever you have the opportunity to participate, do so! Show off what you have learned, but do it in a way that contributes to a positive learning environment for you and your classmates. Be involved in the learning process. Ask relevant questions. Offer insights. Give examples. Participation should be constructive and fun.

## Get to Know Your Classmates

Together you can do several things that enhance learning. Every time you explain a concept to someone else, you increase your understanding of the material. You can share ideas and information. You can check each other to make sure you are learning the material. You can "bounce" ideas around. You can study together in advance of tests. If you miss a class, you'll know someone who will share notes with you or who can tell you about up-coming assignments or tests.

You are special because you chose to pursue higher learning. Invest in yourself and you should be successful!

## <u>The Science of Psychology</u> Laura A. King LEARNING OBJECTIVES and KEY TERMS For the FINAL EXAMINATION

Students are responsible for the following learning objectives and key terms for the comprehensive departmental final exam. Learning objectives and key terms not included in this list will not be tested on the Final Exam.

I. INTRODUCTION (CH. 1 & 2)		
Learning Objectives	Key Terms	Pages
1. Define psychology	psychology	4
2. Define the scientific method and	Scientific method	26-30
explain how it is used in psychology.		
3. Describe the major schools of	Biological psychology	11-12
thought and theoretical perspectives in	Behaviorism	12
psychology.	Psychoanalysis (Psychodynamic)	12-13
	Humanistic psychology	13
	Cognitive psychology	13
	Evolutionary psychology	13-14
	Sociocultural approach	14
4. Define and explain the differences	Naturalistic observation	30; 46
between the various descriptive	Laboratory observations	30; 46
research methods.	Case study	31-32
	Survey	30-31
	Correlation	33-36
	Correlation coefficient	33
5. Define representative sample and	Population	45
explain why it is important.	Sample	45
	Representative sample	45,
		Addendum (1)
6. Describe the experimental method,	Experimental method	37
state its advantages and disadvantages,	Hypothesis	27
and distinguish between independent	Random assignment	38
and dependent variables.	Independent variable	38-39
	Dependent variable	39-40
	Experimental group	40
	Control group	40
7. Explain the rationale behind placebo-	Experimenter bias	42
control experiments.	Placebo	43
	Placebo effect	43
	Double-blind procedure	43
8. Outline the ethical standards that		52-54
psychological researchers must follow.		

9. Explain the difference between a	Psychologist	15
psychologist and a psychiatrist.	Psychiatrist	15
psychologist and a psychiatrist.	1 Sycillati ist	15
II. BIOLOGY AND BEHAVIOR (CH. 3	<u>5)</u>	
Learning Objectives	Key Terms	Pages
1. Identify the basic components of the	Neuron	65
neuron.	Dendrites	67
	Cell body	67
	Axon	67
2. Identify the basic components of the	Synapse	70
synapse.	Synaptic gap	70
3. Define the action potential and	Resting potential	69
explain the processes that occur when a	Action potential	69-70
neuron is activated.	-	
4. Identify the major neurotransmitters	Neurotransmitters	70
and explain how neurotransmitters	Acetylcholine	72
affect behavior.	Norepinephrine	72-73
	Dopamine	73
	Serotonin	73
	Endorphins	73
5. Identify the medulla, pons and	Brain stem	78
cerebellum, and describe their	Medulla	78
functions	Pons	78
	Cerebellum	78-79
6. List the processes regulated by the	Hypothalamus	81-82
hypothalamus.		
7. Describe the limbic system, and list	Limbic system	80
the responses and behaviors affected by	Hippocampus	81
it.	Amygdala	81
8. Describe the components of the	Cerebrum	Addendum (2)
cerebrum and their functions.	Cerebral cortex	82
	Corpus callosum	87
	Cerebral hemispheres	82; 86-87
9. Explain the functions of the frontal	Frontal lobes	84
lobes.	Motor cortex	85
	Association areas	86
	Broca's area	86
	Broca's aphasia	86
10. Describe various methods for	Electroencephalograph (EEG)	75
studying the brain and its functions.	Computerized axial tomography	76
	(CAT or CT scan)	
	Positron emission tomography	76
	(PET scan)	
	Magnetic resonance imaging (MRI)	77
	Functional magnetic resonance	77

	imaging (fMRI)	
11. Explain the difference between the	Central nervous system	64
central and the peripheral nervous	Peripheral nervous system	64
systems.		
12. Explain the functions of the	Sympathetic nervous system	64
sympathetic and parasympathetic	Parasympathetic nervous system	64
nervous systems.	Autonomic nervous system	64
13. Explain plasticity.	Plasticity	63; 91-92
14. What is the endocrine system?	Endocrine system	90
Describe the ways that the pituitary	Hormones	90
gland and adrenal glands affect	Pituitary gland	90
behavior.	Adrenal glands	90-91
		1
III. LEARNING (CH. 6)		
Learning Objectives	Key Terms	Pages
1. Define and identify examples of	learning	182
learning.		
2. Explain the process through which	Classical conditioning	183
classical conditioning modifies an	Unconditioned stimulus	184
organism's responses to stimuli.	Unconditioned response	184
	Neutral stimulus	184-185
	Conditioned stimulus	184
	Conditioned response	184
	Stimulus generalization	186-187
	Stimulus discrimination	187
	<b>Extinction (in classical</b>	188
	conditioning)	188
	Spontaneous recovery	
3. Summarize the contributions of		184, 189, 193-
Pavlov, Watson and Skinner to the		194
study of learning.		
4. Explain the process through which	<b>Operant conditioning</b>	193
operant conditioning modifies an	Reinforcer	195
organism's responses to stimuli.	Extinction	197
	Generalization	197
	Reinforcement	195
	Primary reinforcer	196
	Secondary reinforcer	196-197
5. Define shaping.	Shaping	194
	Successive approximations	194-195
6. Explain the difference between	Positive reinforcement	195-196
positive and negative reinforcement	Negative reinforcement 195	
7. Define punishment and summarize	Punishment by application199-200	
the factors that influence its	(positive)	100 200
effectiveness.	Punishment by removal (negative)	199-200

8. Define behavior modification	Behavior modification	201-202
o. Define bellavior mounication	Token economy	197
9. Define observational learning.	Observational learning	202
9. Denne observational learning.	Mirror neurons	66 (CH. 3)
IV. MEMORY (CH. 7)		
Learning Objectives	Key Terms	Pages
1. Explain the information-processing	Information processing approach	218
approach to memory	Encoding	218-219
	Storage	218, 222
	Retrieval	218, 234
2. Describe the function and	Short-term memory	223
characteristics of short-term memory	Working memory	224-225
3. Describe the characteristics of long-	Long-term memory	226
term memory.	Declarative memory	227
	Semantic memory	228
	Episodic memory	228
	Nondeclarative memory	228-229
	Procedural memory	229-230
4. Explain the differences between	Recall	236
recall, free recall, cued recall, and	Recognition	236
recognition measures of memory.		
5. Explain the reasons for forgetting.	Encoding failure	243
	Decay theory	244-245
	Interference theory	244
	Motivated forgetting	239
	Retrieval failure	244
6. Describe the process of	Eyewitness accounts	240-243
reconstructive memory		
7. Explain the roles of schemas in	Schema	231
memory.		
8. Describe several techniques for	Mnemonics	Addendum (3)
improving memory	Elaborative rehearsal (elaboration)	220-221
	Self-references	220
	Visual imaginary	221
	Organization	246-247
	Overlearning	Addendum (4)
	Massed practice	Addendum (5)
	Spaced (distributed) practice	Addendum (6)
V. LIFESPAN DEVELOPMENT (CH. 9		D
Learning Objectives	Key Terms	Pages
1. Explain the differences between	Cross-sectional design 291	
cross-sectional and longitudinal	Longitudinal design 291	

research designs.		
2. List the characteristics of tahe three	Zygote	293
stages of prenatal development.	Germinal period	293
	Embryonic period	293
	Fetal period	294
3. Explain the effects of teratogens and	Teratogen	294
other negative factors on prenatal	Fetal alcohol (spectrum) syndrome	294
development.		
4. Describe the relationship between	Attachment	305
contact comfort and attachment.	Separation anxiety	Addendum (7)
	Stranger anxiety	Addendum (8)
5. Explain the differences between the	Secure attachment	305
secure, anxious-ambivalent, avoidant,	Anxious-ambivalent	305
and disorganized patterns of	Avoidant	305
attachment.	Disorganized	Addendum (9)
6. Explain the differences between the	Sex	358
social learning and gender schema	Gender identity	359
theory explanations of gender role	Sexual orientation	376
development.		(CH. 11)
7. Describe the process of cognitive	Schemes (schemas)	298
development according to Piaget.	Assimilation	298
	accommodation	298
8. Summarize the characteristics of	Sensorimotor stage	298-299
Piaget's four stages of cognitive	Object permanence	299
development.	Preoperational stage	299-300
	Egocentrism	300
	Concrete operational stage	299, 300
	Conservation	300
	Formal operational stage	299, 300-301
9. Summarize the characteristics of	Trust/ mistrust	307-308
Erikson's eight stages of psychosocial	Autonomy/ shame & doubt	307-308
development.	Initiative/guilt	307-308
	Industry/inferiority	307-308
	Identity/role confusion	309, 313
	Intimacy/isolation	309, 320
	Generativity/stagnation	309, 320
	Ego integrity/despair	309, 321
		Addendum
		(Table A)
10. Explain the effects of authoritarian,	Authoritarian style	308-309
authoritative, and permissive parenting	Authoritative style	309
styles on children's development.	Permissive style	309
11. Explain Kohlberg's levels and	Preconventional level & stages	310
stages of moral development	<b>Conventional level &amp; stages</b>	310
	Postconventional level & stages	310
12. Describe the symptoms and	Alzheimer's disease	249 (CH. 7)

proposed causes of Alzheimer's disease		
VI. PERSONALITY (CH. 12)		1
Learning Objective	Key Terms	Pages
1. Define personality.	Personality	396
2. Describe the processes that take place	Conscious	396-397
in the conscious, preconscious, and	Preconscious	Addendum (10)
unconscious mind.	unconscious	396-397
3. Define and identify the functions of	Id	397-398
the id, ego, and superego.	Ego	397-398
	Superego	397-398
4. Explain the purpose of defense	Defense mechanism	398-399
mechanisms in Freud's theory.	Repression	398
2	Projection	398-399
	Displacement	398
	Reaction formation	398-399
	Regression	398
	Denial	398
5. Summarize the basic assumptions	Psychosexual stages	399-400
associated with Freud's psychosexual		
stages.		
6. Explain the Big Five personality	Trait	406-407
traits.	<b>Big Five</b>	407-409
7. Explain the views of humanistic	Humanistic psychology	403-405
theorists regarding personality.		
8. Explain the views of Abraham	Hierarchy of needs	336-337
Maslow on self-actualization.		(CH. 10)
	Self-actualization	403-404
9. Explain Bandura's social-cognitive	Social cognitive	414-415
view of personality.	Self-efficacy	415
	Reciprocal determinism	414
		Addendum (11)
10. Describe the evidence for and	Behavior genetics	420
against the view that personality is		
inherited.		
11. Explain the differences between	Self-report inventory	421-422
objective (self-report inventory) and	Projective test	422-423
projective personality test.		
VII. STRESS AND HEALTH (CH. 17)		
Learning Objectives	Key Terms	Pages
1. Describe the stages of the General	General Adaptation syndrome	571
Adaptation Syndrome (GAS).	(GAS)	571
Tranpanton Stantome (3115).	Alarm stage	571
	1141111 54450	511

	Resistence stage	571
	Exhaustion stage	
2. Describe the features of post-	Post-traumatic stress disorder	511
traumatic stress disorder (PTSD).		(CH. 15)
3. Explain the differences between	Problem-focused coping	574
problem-focused and emotion-focused	Emotion-focused coping	574
coping.		
4. Explain the purpose and structure of	Social Readjustment Rating Scale	Addendum (12)
the Social Readjustment Rating Scale	(SRRS)	
(SRRS.)		
5. Describe the impact of daily hassles	Hassles	Addendum (13)
on stress and health.		
6. Describe the effects of stress on the	Biopsychosocial model	562
immune system.	Health psychology	562
	psychoneuroimmunology	572
7. List the factors that influence	Resilience	351 CH. 10
individual capacity for resisting the	Social support	568
effects of stress.	Hardiness	575
	Meditation	176-178 (CH.5)
	Biofeedback	Addendum (14)

VIII. PSYCHOLOGICAL DISORDERS	S (CH. 15)	
Learning Objectives	Key Terms	Pages
1. List the criteria for abnormal	Deviation for social/cultural norms	500
behavior	Maladaptive/dysfunctional	500
	behaviors	500
	Personal distress	
2. Describe the purpose, organization,	DSM-5	502-504
and content of the DSM-5.		
<b>3.</b> Define and describe the group of	Generalized anxiety disorder	506
disorders called "anxiety disorders."	Panic disorder	507
	Specific phobias	508
	Social anxiety disorder	508-509
	Agoraphobia	Addendum (15)
4. Describe the features of	<b>Obsessive-compulsive disorders</b>	509
obsessive-compulsive disorders.		
5. Describe the characteristics of	Dissociative identity disorder	516-517
dissociative identity disorder.		
6. Describe the features of	schizophrenia	517-518
schizophrenia.		
7. List the possible causes of		518-520
schizophrenia.		
8. Describe the features of major	Major depressive disorder	511-512
depression.	_	
9. Summarize the features of bipolar	Bipolar disorder	514-515

disorder.	Mania (manic episode)	
10. Summarize the risk factors for suicide.		524-526
11. Summarize the features of the	Personality disorders	521
personality disorders.	Antisocial personality	521-523
	Paranoid personality	521
	<b>Borderline personality</b>	523-524
	Narcissistic personality	521
IX. Therapies (CH. 16) Learning Objectives	Key Terms	Pages
		0
1. Summarize the various approaches	Psychoanalysis	539-540
to therapy.	Client-centered (person-centered) therapy	540
	Behavior therapy	540-542
	Cognitive therapy	542-544
	<b>Biomedical (biological) therapy</b>	546-551
		545
		Addendum

## **ADDENDUM:**

## **Supplementary list of definitions for the key terms**

This list provides the definitions of the key terms that will be covered in the PSYC2301 Final Exam but are not defined in the textbook of Visualizing Psychology. They are ordered by sections in which they appear in the master list.

## I. INTRODUCTION

**1. Representative Sample**: a sample consists of the important subgroups (e.g., age, sex, education, income) in the same proportion as they are found in the population.

## II. BIOLOGY AND BEHAVIOR

**2. Cerebrum**: The large, rounded structure of the brain occupying most of the cranial cavity, divided into two cerebral hemispheres that are joined at the bottom by the corpus callosum. It controls and integrates motor, sensory, and higher mental functions, such as thought, reason, emotion, and memory.

## III. **LEARNING**

## IV. MEMORY

- **3.** Mnemonic (Devices): Strategies that can improve memory, especially for material that is not easily organized.
- 4. Overlearning: Continue to study the materials after you think you know them.
- **5.** Massed Practice: Time spent learning is grouped (or massed) into long, unbroken Intervals (also known as cramming).
- 6. Spaced (or Distributed) Practice: Learning in short practice sessions with rest periods in between.

## V. <u>LIFESPAN DEVELOPMENT</u>

- **7. Separation Anxiety:** An infant's distress when a familiar caregiver leaves; most obvious between 9 and 14 months.
- 8. Stranger Anxiety (or Wariness): An infant's expression of concern a quiet stare, clinging to a familiar person, or sadness when a stranger appears.

**9. Disorganized Attachement:** Infant may show distress when mother leaves and alternate between happiness, indifference, and anger when mother returns; often look away from mother or look at her with expressionless face.

### VI. **PERSONALITY**

- **10. Preconscious:** Consists of things that a person is not currently aware of, but could be retrieved or brought into consciousness if desired or needed.
- **11. Reciprocal Determinism:** Personality development is determined by the reciprocal interactions of behavior, environmental (or situational) factors, and cognitive (personal) factors.

### VII. STRESS AND HEALTH

- 12. Social Readjustment Rating Scale (SRRS): The scale was developed by Holmes and Rahe to measure stress by ranking different life events from most to least stressful and assigning a point value to each event. Life events, negative or positive, that produce the greatest life changes and require the greatest adaptation are considered the most stressful. The 43 life events on the SRRS range from death of a spouse (100 points) to getting a traffic ticket (11 points).
- **13. Hassles:** Small problems of daily living that can accumulate and sometimes become a major source of stress.
- **14. Biofeedback:** An involuntary bodily process (such as blood pressure or heart rate) is recorded by an external monitoring device, and the information is fed back to an organism to increase voluntary control over the bodily function.

### VIII. PSYCHOLOGICAL DISORDERS

**15. Agoraphobia:** An extreme fear of venturing into public places. Agoraphobia often develops following a panic attack. People with agoraphobia fear being in places from which they cannot easily escape. In severe cases, they may refuse to leave their home because this is the only place they feel safe.

## V. LIFESPAN DEVELOPMENT

### TABLE A:

## ERIKSON'S PSYCHOSOCIAL STAGES ("Eight Stages of (Hu)Man")

	1		1	
Stage	Age	Significant others	Main task (Basic Virtue)	Conditions favoring positive resolution
1. Trust vs. Mistrust	Infancy Birth- 1 year	Parents (especially mother)	Lifelong sense of trust ("Hope")	Good quality of care (consistency and regularity in care)
2. Autonomy vs. Shame & Doubt	Early Childhood 1 - 3 years	Parents	Sense of independence ("Will")	Parenting-patience, tolerance, firmness, no over-protection.
3. Initiative vs. Guilt	Middle Childhood 3 -6 years	Parents	Self starting Self guidance ("Purpose")	Parenting- same as in second stage
4. Industry vs. Inferiority	Elementary School years 6 -11 years	Parents Teachers	Sense of achievement (doing projects, making things) ("Competence")	Encouraging good efforts, giving positive feedback.
5. Identity vs. Role Confusion	Adolescence (11 - 18-22 years)	Parents Teachers Peers	Identity - "Who am I?" making choices. Lifelong process ("Fidelity")	Freedom to explore options in life.
6. Intimacy vs. Isolation	Young Adulthood (22 - 35 years)	Mate, Intimate friends	Searching for "soul mate" ("Love")	Prerequisite- Sense of identity
7. Generativity vs. Stagnation	Middle Adulthood (35 - 65 years)	Next generation	To help and guide next generation ("Care")	Having made good decisions in previous stages
8. Ego integrity vs. despair	Late Adulthood (65 years - death)	Mankind	Reflection of one's life ("Wisdom")	Having made good decisions in previous stages

(Table Created by Dr. Joanne Hsu)

## **IX: THERAPIES**

## TABLE B:Perspectives on the causes and treatment of psychological disorders

Perspective	Cause	Treatment
Psychodynamic (Psychoanalytical)	Fixation (early childhood) unresolved unconscious conflict, breakdown of ego defense mechanisms	Psychoanalysis (free association, dream analysis, analyzing resistance, analyzing transference, interpretation) (p. 539)
Humanistic	Blocking of normal tendency toward growth and self actualization	Person-center (or Client- centered therapy) (Empathy, unconditional positive regard, congruence (genuineness), active listening) (pp. 540)
Behavioral	Learned by - classical conditioning, or - reinforcement, or - observation and modeling	Behavior Therapy (Exposure therapy using systematic desensitization procedure, token economy, modeling, etc.) (pp. 540-542)
Cognitive	Faulty, irrational, negative and self-defeating thinking	Beck's Cognitive Therapy, Cognitive restructuring (pp. 542-544)
Cognitive- Behavioral	Combination of Learned maladaptive behavior and negative thinking pattern	Cognitive Behavior Therapy (CBT)("problem focused" and "action oriented", specific strategies are used to address specific problems.) (pp. 543-544)
Biological (Diathesis-Stress Model)	Hereditary factors, malfunctioning of the nervous system or body's biochemistry	Biomedical Therapies (Psychopharmacology or drug therapies, Electroconvulsive Therapy (ECT), transcranial magnetic stimulation (TMS) and psychosurgery.) (pp. 546-551)

(Table Created by Dr. Joanne Hsu)