

## Sensation and Perception (BSEN) CTY Course Syllabus

DATE	SESSION	GOALS/OBJECTIVES	ACTIVITIES	MATERIALS
Week 1, Day 1	Session Morning 9:00-12:00	To get acquainted with each other; To Launch ourselves on our adventure into the world of sensation and perception Lab Safety	Icebreaker Activity- "Stormy Weather" Discussion of Honor Code Classroom rules decisions Introduction of books they will be using in the classroom	Handbook chart paper Markers Textbook Students; Handouts/colored pencils Paper and pens or pencils journal
	1 <sup>st</sup> afternoon session 1:00-2:00	Pretest Discover our senses	Gum taste/smell/vision activity Activity-Brainstorm about senses and organs involved	Paper and pencil Overhead Board Gum Sensory Overload
	2 <sup>nd</sup> afternoon session 2:20-4:25	Find out what the students know  Sensation vs Perception Come up with definition for both	Share brainstorming about senses. Sensory Overload  Brainstorm questions: What is sensation? What is Perception? Share ideas/ look in books and on internet  Journal entry #1	Drawing paper Reference books Computer Sensory Overload Matching words  Students: Journals Pencils/ computer paper/ colored pencils  Journal:

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Week 1, Day Two	9:00 am- noon  Break in the middle	Students will learn the correct way to use microscopes Students will learn the correct way to draw what they see Intro to Scientific method	Go over parts of microscope How to focus How to properly draw what you see Use prepared slides for microscope activity and spend the morning looking, drawing and using the microscopes.	Microscopes Prepared slides Drawing paper Flashlights (use for borders)
	PM I 1:00-2:15	Students will review Brain anatomy Neurons and basic information on the senses	Lecture Notes: They will receive partial power point notes and fill them in during lecture.	PPT Lecture notes Paper/pencil Do coloring section on brain
	2:15-2:30	Break	Human Neuron Game	
	PM II 2:35-3:45	Students will learn about the structure of the different types of neurons.	Discussion about structure of neuron and different types. Students draw and label neurons and when checked make them out of pipe-cleaners and sponges Notes; wordsearch	White board Lecture notes Drawing paper Pictures to label Neuroscience dominoes Neuroscience wordsearch
	3:45-4:00	Break	Synaptic Tag	
	4:00-4:25	Students will learn about action potentials and how electrical signals are sent throughout the body	Notes/Discussion Games/ puzzles	PPT/ Neuron Dominoes/Neuron WS Student Journals: What did you learn about the brain or neurons today? What activity was most beneficial to you in your learning?

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Week 1 Day 3	9:00-noon	Students will learn what neurotransmitters are and what they do?	Finish all Lecture Notes Games songs	Books Brain pages Song books Colored pencils PPT outline
	1:00-2:20	Engagement of students through note taking and discussion as well as working together on the handouts to further their knowledge about the brain and neurons	Finish Notes Work on assignments in workbook.  Journal	Paper/pencils/notebooks  Journal? Where are you still struggling? What else do you want to know about what we talked about?
	2:20-2:40	Break	Bookstore	
	2:40-4:10	Students will continue to work on learning the information presented on the brain and neurons	Students will work in their workbook Students will take a practical quiz on the neuron and movement of information from neuron to neuron	Sponges, pipe cleaners, colored water, straws Brain/Neuron Charades
Week 1 Day 4	9:00- noon	Students will use sheep brains to find the parts of the brain we have been learning about	Students will work with a partner and dissect a sheep brain	Brain dissection directions Pans Dissecting instruments Gloves/apron/goggles
	1:00-2:20	Brain dissection Cont Using microscopes	Students will continue brain dissection dissecting out the different parts and looking at them under the microscope  Comparative anatomy of different brains (internet)	Brain dissection directions Pans Dissecting instruments Gloves/apron/goggles Microscopes Slides White paper/ pencils
	2:20-2:40	Break		

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	2:40-4:20	To help students better understand the parts of the brain and what they do	Students will split up into 2 groups and work on the neuroscience play They will perform it tomorrow	Play scripts Things they can use for props
Week 1 Day 5	9:00- Noon	Brain wrap up Students will better understand the firing of neurons and action potentials	Finish discussion on the brain Student read Nervous system CH 4 in groups and come up with different ways to explain Action Potentials and the firing of neurons Each group will then share their understanding of Action potentials	Nervous System Ch 4 Notebooks/pens or pencils
	1:00-2:20	Students will act out the neuroscience play in order to increase their knowledge about neurons and brains	Neuroscience Play groups each act out the play putting their own spin on it	Scripts costumes
	2:40-4:10	Students will learn the anatomy of the organs involved in the sense of taste	Brainstorming about what is involved in taste. Mapping out of their own taste buds on tongues Discussion about taste	Solutions for tongue mapping Drawing paper
Week 2 Day 1	9:00-Noon	Students will experience tasting with and without the sense of smell and totally without sight Students will learn the why about taste	Blind taste test Physiology of taste notes	Foods for blind taste test Blind folds/bandanas Taste lab papers Paper plates/ spoons notes
	1:00-2:20	Students will learn about the genetics of taste	PTC Test Review of dominant and recessive traits	Whiteboard/markers PTC paper Notes

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	2:40-4:10	Students will finish learning about taste and perception of taste	Notes Discussion Workbook Pages in Special Senses chapter	Notes Workbook pages
Week 2 Day 2	9:00-noon	Students will experience different smells. Students will learn about fatiguing senses Students will explore the sense of smell	Smelly Balloons Fatiguing smell with garlic and coffee exp Discussion about smell	Balloons Different odors Garlic coffee
	1:00-2:20	Students will learn the neuro-pathway for smell	Resource book jigsaw reading Lecture notes	Green resource books Brain facts books Discovery books PPT Lecture and notes handouts
	2:40-4:10	Students will continue to learn about smell	Sharing of reading Special senses on smell and nose	Workbook Whiteboard/markers for student notes
Week 2 Day 3	9:00-noon	Students will learn how perception influences smell Students will review all that was learned and demonstrate what they learned	Discussion on perception and smell and then notes Review of taste and smell by doing board races on what am I statements. Quizzes after board race review	Whiteboard Markers What am I statements Quiz
	1:00-2:20	Students will learn the anatomy of the organs involved in the sense of sight	Students will draw and label all structures involved in vision Students will review structures using eye model	Drawing paper Eye model colors
	2:40-4:10	Students will experience the sense of vision Students will learn the physiology of vision	Activities involving vision Group discussion about results	Blind spot Visual focal distance Eye test Astigmatism test Peripheral vision test Depth perception

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Week 2 Day 4	9:00-noon	Students will learn about vision and perception involved in sight Students will learn more about the neuroscience involved in physiology of vision	Discussion and notes on Gestaltdt's theory Optical Illusion pictures Notes on Physiology of Vision Jigsaw reading in resource books and sharing of information	White boards Resource books PPT of Optical illusions notes
	1:00-2:20	Students will continue learn more about the neuroscience involved in physiology of vision	Sharing of Jigsaw reading and note taking Dr. Georg Spilich-cognitive neuroscientist came in and gave a presentation on blood flow, vision.	White boards Resource books Ppt notes
	2:40-4:10	Students will review the anatomy of the eye Students will get instructions on dissection of the eye	Dissection notes and pictures of what to find Special senses Chapter on the eye Anatomy of the eye review and quiz	White paper Workbook activities on vision Eye review Eye quiz Dissection instructions for eyeball
Week 2 Day 5	9:00-noon	Students will continue to learn about vision	Reading and sharing of note from jigsaw reading in the resource book	Whiteboard resource books
	1:00-2:20	Students will experience what it is like to dissect and eye	Cow and sheep eye dissection	Dissecting instruments Pans, gloves, goggles Cow and sheep eyes
	2:40-4:10	Students will finish dissections and drawings of dissection	Using dissecting scopes to look at and draw the eye parts	Dissecting scopes Drawing paper

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Week 3 Day 1	9:00-noon	Students will learn the structures of the ear And conduct hearing Experiments Dr. Michael Kertchner will talk about careers in Neurosciences	Drawings of the ear will be labeled Students will conduct Our Sense of Hearing Experiments Visit with Dr. Michael Kertchner	Drawings of ear, Sense of hearing lab  Careers in Neuroscience and related fields
	1:00-2:20	Students will learn the why and what happens behind hearing	Brainstorming and discussion	whiteboards
	2:40-4:10	Sound Physiology Cont.	Discussion about what happened in experiments And how it relates to the physiology and anatomy of hearing and the ear Journal	Experiments and notes taken during discussion
Week 3 Day 2	9:00-noon	Students will take notes about sound and continue doing experiments about sound	PP Lecture on the ear and the physiology behind sound What's that noise	PP Lecture notes Different sound makers
	1:00-2:20	Students will experience what it is like to have hearing loss	Students will try to write the sentences they hear when different sound waves have been removed	Paper/pencils notes
	2:40-4:10	Finish all sound Begin Touch notes	Work in workbooks PPT lecture and discussion about touch and pain	Finish up all sound notes Workbook pages PPT lecture notes
Week 3 Day 3	9:00-noon	Students will learn about perception and all the senses Students will continue learn about the anatomy and physiology behind touch	DR. C. Gibson in to share about perception and all of the senses Discussion and lecture notes about the skin and touch why and how	DR. Gibson PPT Lecture notes Computer images

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	1:00-2:20	Students will conduct touch experiments and learn about perception	Two Point touch Hot/Cold Sensation Exp. Light touch mapping areas	Touch kit from Carolina
	2:40-4:10		Finish touch experiments	
Week 3 Day 4	9:00-noon	Student will learn about Pain	Students will conduct non injurious experiments to learn about pain Students will read about people who can't feel pain and discussion will be held after	Experiment materials Data sheets Paper/pencils
	1:00-2:20	Students will have a better understanding how all senses work together	Reading in resource book and Brain Facts Book	Whiteboard Resource books Brain Facts Books
	2:40-4:10	Continue discussion on Sensation and perception and how they work together	Discussion Concept mapping	Whiteboard
Week 3 Day 5	9:00-11:00	Students will take a Post Test Sense Movie Perception movie	Post Test Games	