Advanced Anatomy Curriculum (SCI 321/ 322)

Date		Hobbs Science Standards 11th- 12th Grade	NM Standards & Benchmarks	Resources Basic text is Marieb: Human Anatomy & Physiology
		By being embedded throughout the curriculum, these Processing Skills will be addressed throughout the year.		
		Students will be able to:	Strand, Standards, Benchmarks, & Performance Standards	Supplemental books, labs, videos, projects, digital curriculum
_____	**1**	1. Describe the essential components of an investigation, including appropriate methodologies, proper equipment, and safety precautions.	I, I, I, 1	
_____		2. Design and conduct scientific investigations that include: • Testable hypotheses • Controls and variables • Methods to collect, analyze, and interpret data • Results that address hypotheses being investigated • Predictions based on results • Re-evaluation of hypotheses and additional experimentation as necessary • Error analysis.	I, I, I, 2	
_____		3. Use appropriate technologies to collect, analyze, and communicate scientific data (e.g., computers, calculators, balances, microscopes).	I, I, I, 3	
_____		4. Convey results of investigations using scientific concepts, methodologies, and expressions, including: • Scientific language and symbols • Diagrams, charts, and other data displays • Mathematical expressions and processes (e.g., mean, median, slope, proportionality) • Clear, logical, and concise communication	I, I, I, 4	

		• Reasoned arguments. 5. Understand how scientific theories are used to explain and predict natural phenomena (e.g., plate tectonics, ocean currents, structure of atom).	 I, I, I, 5	
	2	1. Understand how scientific processes produce valid, reliable results, including: • Consistency of explanations with data and observations • Openness to peer review • Full disclosure and examination of assumptions • Testability of hypotheses • Repeatability of experiments and reproducibility of results. 2. Use scientific reasoning and valid logic to recognize: • Faulty logic • Cause and effect • The difference between observation and unsubstantiated inferences and conclusion • Potential bias 3. Understand how new data and observations can result in new scientific knowledge. 4. Critically analyze an accepted explanation by reviewing current scientific knowledge. 5. Examine investigations of current interest in science (e.g., superconductivity, molecular machines, age of the universe). 6. Examine the scientific processes and logic used in investigations of past events (e.g., using data from crime scenes, fossils), investigations that can be planned in advance but are only done once (e.g., expensive or time-consuming experiments such as medical clinical trials), and investigations of phenomena that can be repeated easily and frequently.	I, I, II, 1 I, I, II, 2 I, I, II, 3 I, I, II, 4 I, I, II, 5 I, I, II, 6	
	3	1. Create multiple displays of data to analyze and explain the relationships in scientific investigations.	I, I, III, 1	

_____		2. Use mathematical models to describe, explain, and predict natural phenomena.	I, I, III, 2	
_____		3. Use technologies to quantify relationships in scientific hypotheses (e.g., calculators, computer spreadsheets and databases, graphing software, simulations, modeling).	I, I, III, 3	
_____		4. *Identify and apply measurement techniques and consider possible effects of measurement errors.*	I, I, III, 4	
_____		5. *Use mathematics to express and establish scientific relationships (e.g., scientific notation, vectors, dimensional analysis*).	I, I, III, 5	
		Science and Technology		
_____	**4**	1. Know how science enables technology but also constrains it, and recognize the difference between real technology and science fiction (e.g., rockets vs. antigravity machines; nuclear reactors vs. perpetual-motion machines; medical X-rays vs. Star-Trek tricorders).	III, I, I, 1	
_____		2. Understand how advances in technology enable further advances in science (e.g., microscopes and cellular structure; telescopes and understanding of the universe).	III, I, I, 2	
_____		3. Evaluate the influences of technology on society (e.g., communications petroleum, transportation, nuclear energy, computers, medicine, genetic engineering) including both desired and undesired effects, and including some historical examples (e.g., the wheel, the plow, the printing press, the lightning rod).	III, I, I, 3	
_____		4. Understand the scientific foundations of common technologies (e.g., kitchen appliances, radio, television, aircraft, rockets, computers, medical X-rays, selective breeding, fertilizers and pesticides, agricultural equipment).	III, I, I, 4	
_____		5. Analyze the impact of digital technologies on the availability, creation, and dissemination of information.	III, I, I, 6	
_____		6. *Examine the role that New Mexico research facilities play in current space exploration (e.g., Very Large Array, Goddard Space Center*).	III, I, I, 7	

_____		7. Describe uses of radioactivity (e.g. nuclear power, nuclear medicine, radiometric dating).	III, I, I, 8	
_____		8. Understand how knowledge about the universe comes from evidence collected from advanced technology (e.g., telescopes, satellites, images, computer models).	II, III, I, 3	
_____		9. *Describe the key observations that led to the acceptance of the Big Bang theory and that the age of the universe is over 10 billion years.*	II, III, I, 4	
		Science and Society		
_____	**5**	1. Describe how human activities have affected ozone in the upper atmosphere and how it affects health and the environment.	III, I, I, 7	
_____		2. Describe how scientific knowledge helps decision makers with local, national, and global challenges (e.g., Waste Isolation Pilot Project [WIPP], mining, drought, population growth, alternative energy, climate change).	III, I, I, 9	
_____		3. Describe major historical changes in scientific perspectives (e.g., atomic theory, germs, cosmology, relativity, plate tectonics, evolution) and the experimental observations that triggered them.	III, I, I, 10	
_____		4. Know that societal factors can promote or constrain scientific discovery (e.g., government funding, laws and regulations about human cloning and genetically modified organisms, gender and ethnic bias, AIDS research, alternative-energy research).	III, I, I, 11	
_____		5. Describe how environmental, economic, and political interests impact resource management and use in New Mexico.	III, I, I, 13	
		Science and Individuals		
_____	**6**	1. *Describe New Mexico's role in nuclear science (e.g., Manhattan Project, WIPP, national laboratories*).	III, I, I, 14	
_____		2. Identify how science has produced knowledge that is relevant to individual	III, I, I, 15	

		health and material prosperity.		
_____		3. Understand that reasonable people may disagree about some issues that are of interest to both science and religion (e.g., the origin of life on Earth, the cause of the Big Bang, the future of Earth).	III, I, I, 16	
_____		4. Identify important questions that science cannot answer (e.g., questions that are beyond today's science, decisions that science can only help to make, questions that are inherently outside the realm of science).	III, I, I, 17	
_____		5. Understand that scientists have characteristics in common with other individuals (e.g., employment and career needs, curiosity, desire to perform public service, greed, preconceptions and biases, temptation to be unethical, core values, including honesty and openness).	III, I, I, 18	
_____		6. Know that science plays a role in many different kinds of careers and activities (e.g., public service, volunteers, public office holders, researchers, teachers, doctors, nurses, technicians, farmers, ranchers).	III, I, I, 19	

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(1st 9 weeks- 1st 4 ½ weeks)

Date		Hobbs Science Standards 11th- 12th Grade	NM Standards & Benchmarks	Resources Basic text is Marieb: Human Anatomy & Physiology
		Students will be able to:	Strand, Standards, Benchmarks, & Performance Standards	Supplemental books, labs, videos, projects, digital curriculum
_____ _____	**7**	**Levels of Organization** **Anatomical References** 1. Name the regions of the body. 2. Name the planes of the body.	II, II, I, 8	
_____	**8**	**Biological Molecules** 1. Describe the structure and functions of the biological molecules.	II, I, I, 1	
_____ _____	**9**	**Cells** 1. Describe the structure and functions of cells. 2. Explain transport processes in cells.	II, II, II, 1-6 II, II, III, 1-7	
_____	**10**	**Mitosis** 1. Name the stages and events of mitosis.	II, II, II, 5-7	
	11	**Meiosis**	II, II, II, 5-7	

_____ _____		1. Name the stages and events of meiosis. 2. Describe the formation of gametes.		
	12	**Human Life Cycle** **Reproductive Systems** 1. Differentiate essential and accessory organs of the reproductive systems. 2. Name and describe the structures and functions of the male reproductive system. 3. Describe the formation and transport of sperm. 4. Explain the functions of the accessory structures and glands of the male reproductive system. 5. Describe the endocrine function of the male reproductive system. 6. Name and describe the structures and functions of the female reproductive system. 7. Name and locate the tissue layers of the uterus. 8. Describe the formation and transport of eggs. 9. Describe the events of the ovarian cycle. 10. Describe the events of the menstrual cycle. 11. Describe the endocrine function of the female reproductive system. 12. Explain the transmission and effects of different infectious diseases/STD's on the reproductive systems.	II, II, I II, II, II II, II, III	Video- "Reproductive System" Video- "Vasectomy" Video- "Laparoscopic Tubal Ligation" 35mm Slides: Human Reproductive System

	13	**Pregnancy, Development and Growth**		
_____		1. Describe the process of fertilization of the egg by a single sperm cell.	II, II, I II, II, II II, II, III	Video- “Miracle of Life”
_____		2. Explain how the zygote progresses through different developmental stages resulting in a blastocyst.		
_____		3. Explain the process of implantation in the uterine wall.		
_____		4. Describe the formation and function of the placenta.		
_____		5. Describe the formation of germ layers and their resulting tissues/structures.		
_____		6. Explain the processes and structures involved in labor and birth.		

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		Students will be able to:	Strand, Standards, Benchmarks, & Performance Standards	Supplemental books, labs, videos, projects, digital curriculum
	14	**Histology** **Tissues**	II, II, I II, II, II II, II, III	Tissue Microscope Lab & Drawings
_____		1. Identify and describe the basic tissue types.		
_____		2. Explain the functions of the different tissues.		
_____		3. Describe how the structures of tissues matches their functions.		
	15	**Membranes**	II, II, I II, II, II II, II, III	Membranes Microscope Lab & Drawings
_____		1. Name and describe the different types of membranes and their locations.		
_____		2. Explain the function of each type of membrane.		
	16	**Skin**	II, II, I II, II, II II, II, III	Skin Microscope Lab & Drawings Video- "Human Body: The Skin"
_____		1. Name and describe the layers of the skin.		
_____		2. Explain the functions of the layers of the skin.		
_____		3. Differentiate epidermis, dermis, and subcutaneous tissues.		

_____ _____		4. Describe the process of tissue healing and repair in skin injuries. 5. Explain the effects on the skin of prolonged exposure to the sun and other environmental factors.		
_____ _____ _____ _____	**17**	**Skeletal System** **Histology of Osseous Tissue** 1. Describe the components of Haversian systems. 2. Explain the functions of Haversian systems and their components. 3. Differentiate between compact and cancellous bone. 4. Differentiate the functions of compact and cancellouos bone tissue.	II, II, I II, II, II II, II, III	Identification of Bones of the Skeletal System Lab Practical Lab Exam: Identification of Bones Video- "Human Body: Skeleton System" "Arthroscopic Surgery of the Knee" Video "Arthroscopic Surgery of the Shoulder" Video Video- "Total Joint Replacement- Hip"
_____ _____ _____	**18**	**Axial Skeleton** 1. Explain the function of the axial skeleton. 2. Name, describe, and identify the bones of the axial skeleton. 3. Explain how the bones of the axial skeleton are matched to their functions.	II, II, I II, II, II II, II, III	35mm Slides: Bone and Joint Trauma Video- "Total Knee Replacement Surgery" Basics of interpreting x-rays, CT scans, and MRI's of bones and joints
_____ _____	**19**	**Appendicular Skeleton** 1. Explain the function of the appendicular skeleton. 2. Name, describe, and identify the bones of the axial skeleton.	II, II, I II, II, II II, II, III	

_____		3. Explain how the bones of the axial skeleton are matched to their functions.		
_____ _____	**20**	**Articulations** 1. Name and describe the three major types of articulations found in the body. 2. Explain how the structure of the major types of articulations match their functions.	II, II, I II, II, II II, II, III	
_____ _____ _____ _____ _____ _____	**21**	**Pathology** 1. Describe the effects of stress and trauma on bones. 2. Describe the effects of aging on bones. 3. Explain how injuries affect articulations. 4. Explain the basic repair of fractures and articulations. 5. Differentiate rheumatoid and osteoarthritis. 6. Explain how articulating surfaces of joints can be replaced in the treatment of arthritis.	II, II, I II, II, II II, II, III	

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(2nd 9 weeks- 3rd 4 ½ weeks)

Date		Hobbs Science Standards 11th- 12th Grade	NM Standards & Benchmarks	Resources Basic text is Marieb: Human Anatomy & Physiology
		Students will be able to:	Strand, Standards, Benchmarks, & Performance Standards	Supplemental books, labs, videos, projects, digital curriculum
_____ _____ _____	**22**	**Muscular System** **Histology of Muscle Tissue** 1. Differentiate three types of muscle based on appearance, control, location, and function. 2. Describe the microscopic and molecular structure of muscle tissue. 3. Explain the sliding filament theory of muscle contraction.	II, II, I II, II, II II, II, III	Discovery Lab: EMG's Video: "Muscular System" "Musculoskeletal System" Video
_____ _____ _____	**23**	**Identification of Muscles** 1. Develop a system for the organization of muscles of the body into groups. 2. Develop a nomenclature for the naming of muscles. 3. Locate and name the muscles of the body according to origin, insertion, and planes of movement.	II, II, I II, II, II II, II, III	Naming Muscles Lab
_____	**24**	**Muscle Physiology** 1. Explain the source of energy for muscle contractions.	II, II, I II, II, II II, II, III	CD: Physiology of the Muscular System

_____ _____ _____ _____ _____ _____ _____		2. Explain the use of ATP in muscle contractions. 3. Describe a muscle twitch and the events which occur in each phase of a twitch. 4. Describe and differentiate the basic types of muscle contractions (complete/incomplete tetanus, Treppe, etc). 5. Describe the effects of diminished oxygen, glucose, and ATP supplies on muscle contraction. 6. Differentiate between aerobic and anaerobic muscle contractions. 7. Describe the effects of exercise on the development of muscles. 8. Describe different exercise techniques and their how they affect the ability of muscles to contract.		
_____	**25**	**Pathology** 1. Name three common diseases which affect the muscular system and explain their effects.	II, II, I II, II, II II, II, III	

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(2nd 9 weeks- 4th 4 ½ weeks)

Date		Hobbs Science Standards 11th- 12th Grade	NM Standards & Benchmarks	Resources Basic text is Marieb: Human Anatomy & Physiology
		Students will be able to:	Strand, Standards, Benchmarks, & Performance Standards	Supplemental books, labs, videos, projects, digital curriculum
	26	**Nervous System** **Nerve Cells and Nerve Impulses** 1. Describe the structure of a neuron. 2. Name the components of a neuron and explain its functions. 3. Describe the mechanism for the transmission of a nerve impulse. 4. Describe the structure and components of a synapse. 5. Describe nerve impulse transmission across a synapse. 6. Explain the role of neurotransmitters in nerve impulse conduction and transmission.	II, II, I II, II, II II, II, III	Video- "Human Brain Series" Video- "The Mind Series" CD- "Physiology of the Nervous System" CD- "Nerve Impulse Transmission" Testing Reflexes Lab
	27	**Peripheral Nervous System** 1. Differentiate neurons of the peripheral and central nervous systems. 2. Differentiate between afferent and efferent nerve impulses.	II, II, I II, II, II II, II, III	

	28	**Central Nervous System** 1. Name the three divisions of the central nervous system. 2. Name the divisions of the brain stem and describe their functions. 3. Name the divisions of the diencephalons and describe their functions. 4. Name the divisions of the cerebrum and describe their functions. 5. Locate and describe the cerebellum and its functions. 6. Define an integrative function and give an example of an integrative function which involves structures of the three regions of the brain. 7. Name, in numerical order, the twelve cranial nerves and briefly describe their functions.	II, II, I II, II, II II, II, III	
	29	**Pathology** 1. Differentiate the central and nervous systems in terms of their abilities to repair themselves. 2. Explain the effects of major and minor trauma to the brain. 3. Name some common diseases of the central nervous system, their effects, and treatment. 4. Describe the effects of drugs and alcohol on brain. 5. Explain how drugs and alcohol affect the transmission of nerve impulses. 6. Explain the effects of drugs and alcohol on synaptic transmission.	II, II, I II, II, II II, II, III	Sheep Brain Dissection Discovery Lab-EEG's 35mm Slides: Human Brain

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Date		Hobbs Science Standards 11th- 12th Grade	NM Standards & Benchmarks	Resources Basic text is Marieb: Human Anatomy & Physiology
		Students will be able to:	Strand, Standards, Benchmarks, & Performance Standards	Supplemental books, labs, videos, projects, digital curriculum
	30	**The Special Senses** **Vision** 1. Describe the structures of the eye. 2. Explain the functions of eye structures. 3. Explain the steps in the physiology of vision. 4. Describe how color vision is achieved, using their knowledge of combining colors of light. 5. Differentiate near/far-sightedness and explain their surgical and non-surgical treatments. 6. Describe astigmatism and explain its treatment. 7. Explain the effects of glaucoma and how it is treated. 8. Describe cataracts and their treatment.	II, II, I II, II, II II, II, III	Cow Eye Dissection Video- "Human Body: Vision" Video- "The Eye and Vision" CD- "Physiology of Vision"
	31	**Hearing**		Video- "The Ear and

_____ _____ _____ _____ _____		1. Describe the structures of the three regions of the ear. 2. Explain the functions of ear structures in hearing and equilibrium. 3. Explain the steps in the physiology of hearing. 4. Differentiate conduction and neural deafness and their treatments. 5. Explain the effects of sound pollution and long-term exposure to different sounds on the ears' ability to create nerve impulse for sound.	II, II, I II, II, II II, II, III	Hearing" CD- "Physiology of Hearing"
_____	**32**	**Taste** 1. Name the different types of taste/chemoreceptors found on the tongue and describe the tastes they perceive.	II, II, I II, II, II II, II, III	
_____	**33**	**Sensory Receptors** 1. Name the different types of receptors found throughout the body, and explain their roles in detecting pain, pressure, temperature, and touch.	II, II, I II, II, II II, II, III	
_____ _____ _____	**34**	**Endocrine Structures and Functions** **Major Glands** 1. Differentiate between regulatory and trophic hormones. 2. Name the nine major glands of the endocrine system. 3. Name the hormones produced by each endocrine gland and the basic effect of that hormone.	II, II, I II, II, II II, II, III	Video- "Human Body- Endocrine System" 35mm Slides: Endocrine Structures
_____	**35**	**Regulatory and Integrative Functions** 1. Name the organs and systems which work with the endocrine system in control of metabolism.	II, II, I II, II, II II, II, III	

_____	**36**	**Pathology** 1. Name one disease caused by the hyper/hyposecretion of each of the major hormones of the endocrine system.	II, II, I II, II, II II, II, III	

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Date		Hobbs Science Standards 11th- 12th Grade	NM Standards & Benchmarks	Resources Basic text is Marieb: Human Anatomy & Physiology
		Students will be able to:	Strand, Standards, Benchmarks, & Performance Standards	Supplemental books, labs, videos, projects, digital curriculum
	37	**Circulatory System** **Heart**	II, II, I II, II, II II, II, III	Video: "The Heart" Video: "Heart Bypass Surgery"
_____		1. Name and differentiate the tissue layers of the heart.		Sheep Heart Dissection
_____		2. Describe the location of the heart in the thorax.		
_____		3. Name and locate the chambers of the heart.		Discovery Lab: EKG's
_____		4. Name and locate the valves of the heart.		35mm Slides: Cardiovascular System
_____		5. Differentiate the cuspid and semilunar valves of the heart based on their structure and location.		
_____		6. Describe the pathway of blood through the heart.		
_____		7. Explain the role of the valves of the heart in regulating blood flow.		
_____		8. Locate and describe the structures and functions of the coronary circulation.		
_____		9. Name and locate the structures of the electrical conduction system of the heart.		
_____		10. Explain how the electrical conduction system initiates and synchronizes the		

		contraction of the heart. 11. Draw the tracing of an EKG and explain the electrical and structural events represented by each wave of the tracing. 12. Explain the effect of coronary artery disease on the ability of the heart to contract. 13. Describe the effects of irregularities of electrical heart conduction.		
	38	**Vascular System** 1. Differentiate veins and arteries based on their structure and function. 2. Name and locate the major veins and arteries of the body. 3. Differentiate diastolic and systolic blood pressures. 4. Demonstrate the proper technique for measuring blood pressure.	II, II, I II, II, II II, II, III	
	39	**Blood** 1. Name the types of formed elements of the blood and describe their functions. 2. Describe the composition of plasma and explain its functions. 3. Describe the role of the blood and blood vessels in homeostasis. 4. Differentiate blood types according to antigen and Rh factors. 5. Explain the proper technique for typing blood according to antigen and Rh factor. 6. Describe the components of the blood which work with the immune system to defend the body against disease. 7. Describe the transmission of HIV through blood.	II, II, I II, II, II II, II, III	Video- "Human Body: Circulation" Video- "Human Body: The Blood" Blood Typing Lab Measurement of Blood Pressure Lab Effects of Exercise on Blood Pressure Lab

_____ _____	**40**	**Pathology** 1. Describe anemia and explain its causes. 2. Describe the effects of leukemia.	II, II, I II, II, II II, II, III	

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(4th 9 weeks- 7th 4 ½ weeks)

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		Students will be able to:	Strand, Standards, Benchmarks, & Performance Standards	Supplemental books, labs, videos, projects, digital curriculum
_____ _____ _____	**41**	**Digestive Structures and Functions** **Essential Organs** 1. Name the essential organs of the digestive system and explain their functions. 2. Describe the tissue layers of the digestive system. 3. Explain how the structures of each region of the digestive system matches its function.	II, II, I II, II, II II, II, III	35mm Slides: Human Digestive System
_____	**42**	**Accessory Organs** 1. Locate the liver/gallbladder and pancreas and explain their functions.	II, II, I II, II, II II, II, III	
_____ _____ _____	**43**	**Chemical Digestion** 1. Describe the function of an enzyme. 2. Name the enzymes produced by each region of the digestive system and explain their specific functions. 3. Describe the role of hydrochloric acid in digestion and the activation of enzymes.	II, II, I II, II, II II, II, III	Video: "The Human Body: Digestion"

_____		4. Describe the formation and function of bile.		
_____ _____ _____	**44**	**Mechanical Digestion** 1. Explain the specialization of teeth in the mechanical digestion of different types of foods. 2. Describe the mechanisms and reflexes involved in mastication and deglutition. 3. Describe the mechanical processes which occur in the stomach and intestines which aid in digestion.	II, II, I II, II, II II, II, III	
_____ _____ _____ _____	**45**	**Nutrition and Metabolism** 1. Differentiate between essential and derived nutrients. 2. Name the sources of the major nutrients. 3. Describe the role of vitamins and minerals in the human body. 4. Explain the breakdown of foods into absorbable nutrients.	II, II, I II, II, II II, II, III	Determining the Calories in Food Lab Analysis of Daily Diets Lab
_____ _____ _____ _____ _____	**46**	**Pathology** 1. Describe diseases caused by the malabsorption or lack of specific nutrients. 2. Describe the formation and treatment of ulcers. 3. Explain how gallstones are formed and how they are treated. 4. Explain the causes and treatments of appendicitis. 5. Explain the development of cirrhosis as a result of alcohol consumption.	II, II, I II, II, II II, II, III	Video- "Cholecystectomy"

	47	**Respiratory System** **Respiratory Organs** _____ 1. Name and locate the divisions of the respiratory system. _____ 2. Describe the microscopic structure of the respiratory membranes. _____ 3. Describe the role of the divisions of the respiratory system. _____ 4. Describe the pathway of air into and out of the lungs.	II, II, I II, II, II II, II, III	Video: "The Human Body: Circulation and Respiration" Video: "The Lungs" 35mm Slides: Human Respiratory System

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		Students will be able to:	Strand, Standards, Benchmarks, & Performance Standards	Supplemental books, labs, videos, projects, digital curriculum
_____ _____	**48**	**Respiratory System** **Mechanics of Breathing** 1. Describe the steps involved in the physiology of breathing. 2. Explain the pressure differences within the thorax which are caused by the contraction of the muscles of respiration.	II, II, I II, II, II II, II, III	Measuring Lung Volumes Using Wet Spriometers 35mm Slides: Respiratory System
_____ _____	**49**	**Respiratory Gases** 1. Explain the need for exchange of carbon dioxide and carbon dioxide. 2. Describe gas exchange as diffusion.	II, II, I II, II, II II, II, III	
_____ _____ _____	**50**	**Pathology** 1. Explain how exposure to environmental pollutants can decrease alveolar surface area. 2. Describe the effects of smoking on respiration and respiratory structures. 3. Explain the effects of lung cancer on respiration.	II, II, I II, II, II II, II, III	

	51	**Excretory Structures and Functions** **Kidneys** 1. Describe the location of the kidneys. 2. Describe the gross anatomy of the kidneys. 3. Describe the internal structures and drainage system of the kidneys.	II, II, I II, II, II II, II, III	Video- "Human Body: Excretory System" Video- "Kidney Transplant Surgery"
_____ _____ _____				
	52	**Accessory Structures** 1. Describe the structures which drain and store urine. 2. Describe the tissue structure of the urinary bladder which allows it to stretch and contract.	II, II, I II, II, II II, II, III	
_____ _____				
	53	**Formation of Urine** 1. Explain how the kidneys filter blood. 2. Describe how the process of filtration leads to the formation of urine. 3. Describe the composition of urine. 4. Explain the role of kidneys in maintaining proper levels of water and electrolytes in the body.	II, II, I II, II, II II, II, III	
_____ _____ _____ _____				
	54	**Pathology** 1. Explain the formation of kidney stones. 2. Describe the effects of exposure of environmental pollutants on the kidneys. 3. Explain the process of kidney dialysis.	II, II, I II, II, II II, II, III	
_____ _____ _____				