

EL DORADO UNION HIGH SCHOOL DISTRICT
 EDUCATIONAL SERVICES
Course of Study Information Page

COURSE TITLE Human Physiology									
DISTRICT COURSE NUMBER (#0313)		4-DIGIT STATE COURSE CODE (COMPLETED BY SILT) 2655							
Rationale:		This course provides students with an interest in health careers the opportunity to learn human physiology in a lab-oriented forum.							
Course Description that will be in the Course Directory:		This course focuses on the biochemistry, anatomy, and physiology of the human body. Cell, tissues, organs, and organ systems will be studied, with an emphasis on the medical field. Some dissection is expected.							
How Does this Course align with or meet State and District content standards?		This course is aligned with Biology/Life Sciences Content Standards (9a-i) (10a-f)							
NCLB Core Subjects:		<i>Select up to two that apply:</i> <input type="checkbox"/> Arts <input type="checkbox"/> Civics and Government <input type="checkbox"/> Not Core Subject <input type="checkbox"/> Economics <input type="checkbox"/> History <input type="checkbox"/> English <input type="checkbox"/> Mathematics <input type="checkbox"/> Foreign Language <input type="checkbox"/> Reading / Language Arts <input type="checkbox"/> Geography <input checked="" type="checkbox"/> Science							
CDE CALPADS Course Descriptors: (See Page 2 for Definitions)		<table style="width: 100%; border: none;"> <tr> <th style="text-align: center; border: none;">CTE TECH PREP COURSE INDICATORS</th> <th style="text-align: center; border: none;">CTE COURSE CONTENT CODE</th> <th style="text-align: center; border: none;">INSTRUCTIONAL LEVEL CODE</th> </tr> <tr> <td style="border: none; vertical-align: top;"> <input type="checkbox"/> Tech Prep (32) <input type="checkbox"/> Tech Prep & ROP (33) <input type="checkbox"/> ROP </td> <td style="border: none; vertical-align: top;"> <input type="checkbox"/> CTE Introductory (01) <input type="checkbox"/> CTE Concentrator (02) <input checked="" type="checkbox"/> CTE Completer (03) </td> <td style="border: none; vertical-align: top;"> <input type="checkbox"/> Remedial (35) <input type="checkbox"/> Honors UC-Certified (39) <input type="checkbox"/> Honors Non UC-Certified (34) <input type="checkbox"/> College (40) </td> </tr> </table>		CTE TECH PREP COURSE INDICATORS	CTE COURSE CONTENT CODE	INSTRUCTIONAL LEVEL CODE	<input type="checkbox"/> Tech Prep (32) <input type="checkbox"/> Tech Prep & ROP (33) <input type="checkbox"/> ROP	<input type="checkbox"/> CTE Introductory (01) <input type="checkbox"/> CTE Concentrator (02) <input checked="" type="checkbox"/> CTE Completer (03)	<input type="checkbox"/> Remedial (35) <input type="checkbox"/> Honors UC-Certified (39) <input type="checkbox"/> Honors Non UC-Certified (34) <input type="checkbox"/> College (40)
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Length of Course:		<input checked="" type="checkbox"/> Year <input type="checkbox"/> Semester							
Grade Level(s):		<input type="checkbox"/> 9 <input type="checkbox"/> 10 <input checked="" type="checkbox"/> 11 <input checked="" type="checkbox"/> 12							
Credit:		<table style="width: 100%; border: none;"> <tr> <td style="border: none; vertical-align: top;"> <input checked="" type="checkbox"/> Number of units: 10 <input type="checkbox"/> Meets graduation requirements <input checked="" type="checkbox"/> Request for UC "a-g" requirements </td> <td style="border: none; vertical-align: top;"> <input checked="" type="checkbox"/> College Prep <input checked="" type="checkbox"/> Elective <input type="checkbox"/> Career Technical </td> </tr> </table>		<input checked="" type="checkbox"/> Number of units: 10 <input type="checkbox"/> Meets graduation requirements <input checked="" type="checkbox"/> Request for UC "a-g" requirements	<input checked="" type="checkbox"/> College Prep <input checked="" type="checkbox"/> Elective <input type="checkbox"/> Career Technical				
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Prerequisites:		Biology, Chemistry or Teacher Recommendation							
Department(s):		Science							
District Sites:		EDHS, ORHS, PHS, UMHS							
Board of Trustees COS Adoption Date:		May 17, 2011							
Textbooks / Instructional Materials:		Essential of Human Anatomy & Physiology, Pearson Publishing, Elaine N. Marieb, 2012-10 th Edition, ISBN: 978-0-13-249911-8							
Funding Source:		General Fund							
Board of Trustees Textbook Adoption Date:		June 21, 2011							

Definitions

CALPADS	California Longitudinal Pupil Achievement Data System
CTE Technical Prep	A course within a CTE technical career pathway or program that has been articulated with a postsecondary education or through an apprenticeship program of at least 2 years following secondary instruction.
Instructional Level Code	Represents a nonstandard instructional level at which the content of a specific course is either above or below a 'standard' course instructional level. These levels may be identified by the actual level of instruction or identified by equating the course content and level of instruction with a state or nationally recognized advanced course of study, such as IB or AP.
Instructional Level Honors, UC Certified	Includes all AP courses.
Instructional Level Honors, non UC Certified	Requires Board approval.
Instructional Level College	Includes ACE courses. Equivalent to college course and content, but not an AP course. Not related to section, but to course.

EDUCATIONAL SERVICES**Course Title: Human Physiology (#0313)****TABLE OF CONTENTS**

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Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 1: Introduction to Physiology (9c)

LEARNING OUTCOME: Human Physiology is made meaningful by discussing the significance of current medical discoveries. A discussion of the latest medical technologies provides an understanding of how homeostasis is controlled by positive and negative feedback loop.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <p>*Describe topics discussed in physiology and their importance in medicine.</p> <p>*Directional and anatomical terms</p> <p>*Homeostasis and feedback loops</p> <p>*Levels of organization</p>	<p>2. Instructional strategies that will be used to engage students.</p> <p>Discussion, career options</p> <p>Anatomical drawings</p> <p>Homeostasis Lab</p> <p>Organizational diagrams</p>	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations.</p> <p>Example</p> <p>(Formative): List and explain the 5 principle parts of feedback loops.</p> <p>(Summative): Diagram a personal experience labeling the 5 principle parts of the negative feedback loop which acted to maintain homeostasis.</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology (9c)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 2: Biomolecules and Cytophysiology (1h)

LEARNING OUTCOME: In order to understand and diagnose disorder, human physiology must be clearly defined and analyzed on a macro, chemical, and cellular level.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <p>*Demonstrate the effect of solution concentrations as they relate to the internal and external cellular environment.</p> <p>*Illustrate and recognize the importance of the four basic biomolecules, their structures and functions, synthesis and breakdown.</p> <p>*State the principles of catalysts and explain the action of enzymes.</p> <p>*Explain metabolic pathways with respect to end-product inhibition and inborn errors of metabolism.</p> <p>*Histology</p>	<p>2. Instructional strategies that will be used to engage students.</p> <p>*Tissue Osmosis Lab</p> <p>*Molymod Kits</p> <p>*Qualitative testing for proteins and carbohydrates</p> <p>*Examine histological sections under a microscope</p>	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations.</p> <p>(Formative): List and explain healthful Ph,Co2,O2 and ion concentrations.</p> <p>(Summative): Given a set of symptoms suffered by a patient, design a set of diagnostic tests, conclude on the patient's condition, and recommend a treatment.</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Cell Biology (1h)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 3: Nervous System (9d, 9f)

LEARNING OUTCOME: In order to gain an appreciation for the complexity of the human body, the process of electrochemical transmissions sent through the nervous system will be dissected in detail.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <ul style="list-style-type: none">*Identify the principle divisions and parts of the nervous system*Compare and contrast transmission along the axon and across the synaptic cleft.*Understand the roles of various neurotransmitters.*Understand the significance of the resting membrane potential.*Describe the generation and propagation of an action potential.*Understand the complexity, structure and function of the olfactory, gustatory, optical, tactile, and auditory senses.	<p>2. Instructional strategies that will be used to engage students.</p> <ul style="list-style-type: none">*Diagram the principle divisions and parts of the nervous system.*CD Rom illustrating the propagation of impulse transmission in action*Brain dissection on cats*Left/Right brain testing*Research on Brain Disorders*Cranial Nerve Lab*Cutaneous Receptor Lab*Taste Bud Lab*Vision and Hearing Lab*Eyeball Dissection	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations. (Formative)</p> <p>Diagram the principle divisions and parts of the nervous system. (Summative)</p> <p>Explain to patient who has suffered severe injury to his PNS and CNS divisions, why he will regain movement in his PNS and not his CNS.</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology (9d and 9f)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 4: Endocrine System (9i)

LEARNING OUTCOME: The achievement of a healthful homeostatic balance requires accurate and consistent communication between the nervous system and the endocrine system. The glands of the endocrine system and their function as chemical messengers will be studied in detail.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <p>*Understand 2 modes of hormone entry into target cells.</p> <p>*Diagram the principle parts of the endocrine system relate their function to the pituitary.</p> <p>*Compare and contrast nervous control with endocrine control.</p>	<p>2. Instructional strategies that will be used to engage students.</p> <p>*Diagram modes of entry</p> <p>*Research endocrine disorders</p> <p>*Discuss the "fight or flight" response</p>	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations. (Formative)</p> <p>Diagram modes of hormone entry into the target cell (Summative)</p> <p>Provide a detailed argument in response to this statement, "Hormones control the development of sexual characteristics exclusively."</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology (9i)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 5: Muscular System (9h)

LEARNING OUTCOME: The foods that we eat contain ions which are the driving force behind muscle activity and control. Muscle structure and physiology will be studied in detail.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <ul style="list-style-type: none"> *Compare and contrast the 3 types of muscles anatomically and functionally. *Explain in detail the continuation of the action potential across the myoneural junction. *Explain the sliding filament model with respect to sodium, calcium and ATP. *Explain the role of ATP in both living muscle and rigor mortis. *Describe incomplete tetanus, tetanus, and graded potentials. *Discuss the role of reflexes and differentiate between excitatory and inhibitory neural impulse. 	<p>2. Instructional strategies that will be used to engage students.</p> <ul style="list-style-type: none"> *Chicken wing activity * Cat dissection *Microscope slides * Muscle activity lab *Fatigue and strength exercises *Reflex lab 	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations. (Formative)</p> <p>Diagram and label the principle parts of the myoneural junction along with the major parts of the sliding filament theory. (Summative)</p> <p>Explain how ion flow and ATP relate to the length of time rigor mortis sets in and lasts.</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology: (9h)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 6: Skeletal System (9a)

LEARNING OUTCOME: The skeletal system is an excellent example of the human bodies' inability to literally stand still. Structures which seem to function only as support systems are actually dynamic and continuously reshaping, repairing, and providing essential ions to maintain efficient neural function and muscle contraction.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <p>*Describe the role and the location of the 3 main types of cells that are responsible for bone homeostasis.</p> <p>*Discuss the role of various hormones that work to maintain normal bone tissue structure and function.</p> <p>*Differentiate between cancerous bone and compact bone; relate bone density to fractures.</p> <p>*Identify in detail the anatomical classification of all major bones, joints, muscle attachments and insertions.</p> <p>*Describe the significance of the epiphyseal plate and differentiate between the growth process in long bones as compared to flat bones.</p> <p>*Understand the role of monvalent and divalent cations in bone homeostasis.</p>	<p>2. Instructional strategies that will be used to engage students.</p> <p>*Microscope slides</p> <p>*Cross reference to endocrine system</p> <p>*X-rays of various fracture types</p> <p>*Research diseases that relate to the destruction of bone growth and maintenance</p> <p>Bone decalcification lab (chicken bone)</p>	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations (Formative)</p> <p>Take a series of quizzes and identify all major bones, joints, muscle attachments, and insertions (Summative)</p> <p>Explain in detail why an injury to the epiphyseal plate, in long bones, before the age of 25, is so serious.</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology (9a)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 7: Circulatory System (9a)

LEARNING OUTCOME: Understand the structure and function of the circulatory system in detail. This base knowledge will be used to diagnose heart and blood disorders.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <ul style="list-style-type: none"> *Describe the composition and classification of blood compounds. *Describe the ABO and Rhesus blood typing system. *Understand the stages of blood homeostasis. *Perform various diagnostic tests to identify specific blood disorders. * Trace the path of blood flow with respect to the heart. *Explain the hearts internal conduction system. *Evaluate EKG patterns. *Compare and contrast the structure of arteries, veins and capillaries. *Define and calculate cardiac output. *Describe the negative feedback loop and hormonal control of blood volume and pressure. 	<p>2. Instructional strategies that will be used to engage students.</p> <ul style="list-style-type: none"> *Blood lab *Blood typing lab *Blood labs *Microscope labs *Heart dissection *EKG readings and diagnosis *Cardiac output lab * Measure blood pressure and heart rate 	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations (Formative)</p> <p>Diagram the blood flow through the heart (Summative)</p> <p>Evaluate a series of irregular EKG readings and diagnose the patient</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology (9a)

EL DORADO UNION HIGH SCHOOL DISTRICT

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Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 8: Immune System (10b)

LEARNING OUTCOME: Our immune system which acts as our ultimate defense system can also work against us. In addition to immune system function, allergies and other conditions attributed to an overactive immune system will also be explored.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <p>*Describe the role of the major components of the immune system.</p> <p>*Compare and contrast non-specific immunity with specific immunity; focus on B and T cell immunity.</p> <p>*Describe the structure and function of antibodies with respect to viral infection and blood transfusion.</p> <p>*Discuss the importance of active and passive immunity.</p>	<p>2. Instructional strategies that will be used to engage students.</p> <p>*Discussion</p> <p>*Role play</p> <p>*Research the history and current use of various immunizations</p>	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations (Formative)</p> <p>Diagram the major components of the immune system (Summative)</p> <p>Research and describe in detail conditions that occur due to an overactive immune system</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology (10b)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 9: Respiratory System (9a)

LEARNING OUTCOME: By exploring the complex and flexible structure of the respiratory system, students will be able to diagnose respiratory distress in premature infants, general lung trauma and lung injury which can occur due to scuba diving.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <p>*Identify the anatomy and physiology of the principle parts of the respiratory system.</p> <p>*Explain how pressure differences allow for inspiration and expiration to occur with minimal energy expenditure.</p> <p>*Explain how CO₂ and O₂ concentrations control breathing.</p> <p>*Interpret oxyhemoglobin dissociation graphs.</p>	<p>2. Instructional strategies that will be used to engage students.</p> <p>*Dissection</p> <p>*Spirometer lab</p> <p>*Bromthymol blue lab</p> <p>*Graphing</p> <p>*Scuba diving activity</p>	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations (Formative)</p> <p>Diagram the principle part of the respiratory system (Summative)</p> <p>By traveling on a virtual scuba diving trip, students will determine whether a series of dives are safe by reading Navy dive charts.</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology: (9a)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 10: Excretory System (9g)

LEARNING OUTCOME: By studying the principle parts of the excretory system, students will understand that the excretory not only plays a major role in filtration but also in systemic homeostasis.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <ul style="list-style-type: none">*Describe the function and regions of the nephron and kidney.*Describe the hormonal regulation of the excretory system.*Describe renal disorders.	<p>2. Instructional strategies that will be used to engage students.</p> <ul style="list-style-type: none">*Urinalysis Lab*Dissection*Research	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations (Formative)</p> <p>Diagram the principle parts of the excretory system (Summative)</p> <p>Students will be involved in a urinalysis lab to collect data on the effects of caffeine and other beverages on their excretory system.</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards (9g)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 11: Digestive System (9f)

LEARNING OUTCOME: By understanding the anatomy and physiology of the digestive system, students will better understand the dangers and trauma caused by serious eating disorders.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <ul style="list-style-type: none">*Identify the principle parts of the digestive system, the layers of the GI tract and the function of accessory organs.*Describe the role of enzymes and hormones in the digestive system.*Explain how different biomolecules are absorbed and processed by the digestive system.*Describe digestive system disorders.	<p>2. Instructional strategies that will be used to engage students.</p> <ul style="list-style-type: none">*Dissection*Enzyme lab*Research digestive system disorders	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations (Formative)</p> <p>Diagram the principle parts of the digestive system (Summative)</p> <p>Research and report on a digestive system disorder</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology (9f)

EL DORADO UNION HIGH SCHOOL DISTRICT

EDUCATIONAL SERVICES

Department: Science

Course Title: Human Physiology (#0313)

UNIT/STANDARD #: Unit 12: Reproductive System (9i)

LEARNING OUTCOME: Students will understand the structure and function of the reproductive system.

LEARNING OUTCOME	INSTRUCTIONAL STRATEGIES	ASSESSMENTS	INTERVENTIONS
<p>1. What students will learn, know, and be able to do? (Must be aligned to state content standards.)</p> <p>*Describe the structure and function of the reproductive system.</p> <p>*Describe the role of hormones and their effects on the reproductive system.</p> <p>*Describe the embryological stages of development.</p>	<p>2. Instructional strategies that will be used to engage students.</p> <p>*Dissection</p> <p>*Histology Lab</p>	<p>3. How will we know that students have learned? Include both Formative (for learning) and Summative (of learning) assessment examples.</p> <p>Frequent checks for understanding will be used. These may take the form of warm-ups, quizzes, homework or investigations (Formative)</p> <p>Diagram the principle parts of the reproductive system (Summative)</p> <p>Compare and contrast the embryological stages of 3 different organisms.</p>	<p>4. What will we do if students do not learn? (Outline the planned intervention strategies)</p> <p>Teacher can meet with student for additional assistance.</p> <p>Conference with student and parents to discuss learning strategies.</p> <p>If a student continues to struggle, a class change may be considered, especially since this is an elective science class. This option would be discussed with the student, counselor and parents.</p> <p>5. What will we do if students already know it?</p> <p>Provide a minimum of enriching practice problems, then move to the next topic.</p>

Content Area Standards (Please identify the source)

The students will demonstrate mastery of the following content standards:

Grades 9-12 Biology/Life Sciences Content Standards: Physiology (9i)