El Camino College – Physiology 31 (Phyo-31-1418)
Physiology Lecture and Laboratory Course Syllabus – Fall 2019

Mission Statement: El Camino College offers quality, comprehensive educational programs and services to ensure the educational success of students from our diverse community.

Instructor: Dr. Anne Valle
Class Times: M/W 8 – 12:10 pm
Office Hours: M – TH: 7:30 – 8 am; T/TH: 12:15 – 12:45 pm
Office Phone #: 310.660.3593 x 3345
Section #: 1418
Class Room: NATS 123
Office Room: NATS 111
e-mail: avalle@elcamino.edu

Course Description:
Welcome to an exciting semester of Human Physiology. This is a 4 unit course transferable to CSU and UC schools. Lecture and lab will cover physiology principles of the following body systems: circulatory, respiratory, digestive, urinary, reproductive, muscular, nervous, and endocrine. This course is designed primarily for those majoring in the health sciences.

Prerequisites:
Successful completion of Anatomy 32 and Chemistry 20, 21A, or 4 with a minimum grade of C

Required Lecture & Lab Textbooks and Materials:
1. Human Physiology 15th ed. by Fox, loose leaf (optional – *CONNECT access), publisher McGraw Hill*
2. Human Anatomy and Physiology Laboratory Manual (PhysioEx and Atlas), 13th edition by Marieb, *publisher Pearson*
3. BioPac student lab kit *(one kit per lab group: purchase after week 3)*

Other Materials:
1. 5 Scantrons (ABCDE) and #2 pencils for exams
2. 3-ring (1 inch) binder for in-class and homework assignments, lecture notes, and lab exercises
3. Colored pencils or pens

Optional Study Guide:
Visual Analogy Guide to Human Physiology *by Kriger*

Course Objectives: upon completion of this course, students should:
1. Understand the relationship between anatomical structure and normal physiological function
2. Understand and explain the physiological processes as they occur in all systems studied
3. Understand how reactions at a cellular and chemical level affect system level physiology
4. Be able to relate lab experimental concepts to normal physiological function
5. Be able to predict the effect on other physiological functions when one system's physiology fails
6. Have a solid foundation in preparations for a health profession

Student Learning Outcomes – upon completion of this course:
1. Students will be able to use language appropriate to physiological functions and the health sciences.
2. Students will be able to describe mechanisms and explain physiological processes that occur in the human body on cellular, organ, systemic, and organismal levels.
3. Students will demonstrate the use of instruments to gather physiological data and then analyze that data.

Important Dates (please refer to class schedule):

Last day to add classes:	**Friday, September 6, 2019**
Last day to drop class without a **"W"**	**Friday, September 6, 2019**
Last day to drop with a **"W"**	**Friday, November 15, 2019**

Holidays (campus closed):

Labor Day	**Monday, September 2, 2019**
Veterans Day	**Monday, November 11, 2019**
Thanksgiving Day	**Thursday – Sunday: November 28 – December 1**

Attendance and Participation:
Regular attendance ***is required*** by college regulations and is your only access to materials for which you are responsible. Students who are absent the first class meeting or two consecutive meetings subsequent to the beginning of the course without informing the instructor may be dropped from the class. There is a strong correlation between poor attendance and poor grades. Tardiness and leaving early will adversely impact your grade. Extra credit points may be awarded for asking or answering questions and contributing to class discussions during lectures.

Student Conduct:
Conduct at El Camino College must conform to the laws of the State of California, District Policies, and campus rules and regulations. Violation of such laws, policies, rules and regulations or behavior adversely affecting suitability as a student, will lead to disciplinary action as defined in the school catalog. You are encouraged to study in groups and you will be working in small groups during labs. Quizzes and exams, however, are evaluations of how much you personally have learned. Anyone caught talking, looking at another student's paper, or acting suspiciously during a quiz or exam will receive an automatic zero and will be reported to the Dean of the Natural Sciences Division for further disciplinary actions.

Special Accommodations:
The Americans with Disabilities Act of 1990 (ADA), a federal anti-discrimination and equal opportunity law, provides a comprehensive statutory and regulatory approach to eliminate discrimination against persons with disabilities. Americans with disabilities must have equal access to higher education opportunities. El Camino College programs, services, and activities must be usable, when viewed in their entirety, on a basis that is as equal as possible. If you have a disability that requires special accommodations please contact the Special Resource Center at (310) 660-3295.

Repeat Policy: Each student is allowed only three attempts to successfully complete any class with a C grade or better. Repeats will now include withdrawal attempts as well. Please do not enroll in this class if you are not prepared for the time commitment required to earn a passing grade.

Recommendation for performing well in class and effective learning
Success in physiology depends mostly on having enough time available to study. You will also need to be disciplined, organized, thorough, and efficient. This class is not about memorization but about understanding processes. Re-organize the information provided in the book and lecture to better understand the concepts. The human body is very complex: learning about it and retaining the information takes much time and dedication. Cramming and not sleeping will not help!!! Here are some guidelines to follow:

Before class
- Schedule study days and times to follow for the week and stick to it for the entire semester!
- Access lecture notes from My Class Team Site and look over them before they are covered in class.
- Read the chapter before attending lecture.
- Create reading notes/flash cards per chapter so you can review them when preparing for the exam.
- Jot down questions that you can ask during lecture to help you understand the material covered.

During class
Be an active listener during lecture and lab:
- ✓ Write notes on lecture hand-outs and highlight important information in your hand-outs.
- ✓ Ask questions during lecture when you do not fully understand a concept.

- ✓ Find classmates that are focused on learning and form study groups.
- ✓ Do not sit next to people who will distract you during lecture time (assigned seating can be changed).
- ✓ Turn off cell phone so you are not distracted by outside sources.
- ✓ During lab: be thorough, read the lab activities, ask lab partners to quiz you, do not leave early.

After class

Review the lecture notes:

- Re-organize information in a way that works best for you to recall it.
- Always ask yourself if you understand what you are studying. If you are having problems see the professor during office hours, ask your study partners, and try online resources (textbook website, YouTube, etc.).
- Be thorough when you study – make sure to study ***all*** the material covered.
- Chapters are divided into sections, master one section at a time to keep from becoming overwhelmed.
- Remember start to prepare for each exam on the first day of lecture.

Lecture Exams:

Five Unit Exams (100 points each): scantron questions (~50%) and short-answer questions (~50%). The lowest unit exam score will be replaced by the average of the total points earned for the five unit exams.
Final Cumulative Exam (100 points): multiple choice, matching, and true and false questions

Five Laboratory Exams (25 points each):
Multiple choice, matching, true and false, and/or short-answer questions will be based on the lab exercises.
No bathroom breaks during lecture or lab exams; No make-up exams without documentation

Seven Quizzes (5 points each): TBA during class lecture
No make-up quizzes allowed but the lowest quiz score will be dropped.

Laboratory Assignments:

Will be assigned from the laboratory manual and/or assigned handouts. All lab assignments must be completed and placed in your lab binder. Lab binders will be picked up and checked on lecture exam days. Any missing or incomplete assignment will result in deduction of points.

Extra Credit: You will have an opportunity to earn up to **15** extra credit points. These points may include class participation (answering or asking questions) and a one-time donation of blood (10 points).

Evaluation Criteria and Grading Scale:

Assignment/Test	Point Value
Final Cumulative Exam	100
5 unit exams (100 points each)	500
5 lab exams (25 points each)	125
Lab Notebook	75
7 Quizzes TBA (5 points each, lowest score dropped)	30
Homework (5 points each assignment)	60
Group Project – Clinical Case	60
In-class assignments and participation	50
TOTAL:	**1000**

Standard Grade Scale:

A = 90 – 100%
B = 80 – 89%
C = 70 – 79%
D = 60 – 69%
F = below 60%

Tentative Lecture and Lab Schedule for Fall 2019 is approximate and may be subject to change:

Homework will be assigned from the ***PhysioEX*** exercises (Marieb lab manual) or a handout**. Homework must be turned in by 8:15 am on the assigned due date. Late homework is not accepted.**

Lab exercises will be assigned from the ***Marieb*** lab manual or a handout and must be placed in your lab binder for credit**. If the lab assignment is designated as a wet lab, it must be written up as a lab report.** The wet lab reports will be discussed in class. Steps 1 – 6 must be completed and handed in by 8:00 am on the day the lab is assigned.

Physiology 31 – ***Tentative Lecture & Lab Schedule, Fall 2019*** (schedule is approximate and subject to change)

Date	**Lecture Topic – Fox Textbook**	**Chapter**	***Lab Exercises (Marieb) or Handouts***
Week 1:			
8/26	The Study of Body Function	1	***Handout: Metrics / Solutions***
8/28	Chemical Composition…	2	*Handout:* ***Molecules of Life – Part I***
Week 2:			
9/2	**Labor Day Holiday**		
9/4	***Quiz 1;*** Enzymes and Energy	4	*Handout:* ***Molecules of Life –Part II (wet lab)***
			Prelab ***Due 9/4*** by 8 am
Week 3:			
9/9	***Quiz 2;*** Cell Structure	3	Review – Molecules of Life and Calculation Worksheet
9/11	Cell Respiration and Metabolism	5	***Lab Exam 1***
Week 4:			
9/16	***Lecture Exam 1***	**1-5**	
	Interactions between Cells…	6	
9/18	Endocrine Glands	11	***Marieb EX 5:*** *The Cell: Transport Mechanisms* ***(wet lab)***
			Prelab (omit activities 5 – 7); Due 9/18 by 8 am
Week 5:			
9/23	**Quiz 3;** Muscles	12	***Marieb EX 14***: Skeletal Muscle – Electromyography in a Human Subject – ***Biopac***
9/25	Review		***Marieb EX 21****: Human Reflex Physiology*
Week 6:			
9/30	***Lab Exam 2*** *(Cell Transport; EMG; Human Reflex Physiology)*		***Marieb EX 18****: Electroencephalography –* ***Biopac***
	The Nervous System	7	
10/2	**Lecture Exam 2**	***6,11,12***	***Marieb EX 22:*** *General Sensation*
Week 7:			
10/7	Central Nervous System	8	***Marieb EX 24:*** *Special Senses – Visual Tests and Experi . . .*
10/9	***Quiz 4;*** Autonomic Nervous System	9	***Marieb EX 25:*** *Special Senses– Hearing and Equilibrium*
Week 8:			
10/14	Sensory Physiology	10	***Marieb EX 26:*** *Special Senses: Olfaction and taste* ***(wet lab) –*** *Prelab due 10/14 by 8 am*
10/16	**Lab Exam 3** *(EEG; General Sensation; Vision; Hearing; Olfaction)*		**REVIEW**
Week 9:			
10/21	**Lecture Exam 3**	**7 – 10**	***Marieb EX 29:*** *Blood*
10/23	Blood, Heart, Circulation	13	***Marieb EX 31****: Conduction . . . –* ***Biopac***
Week 10:			
10/28	***Quiz 4*****;** Cardiac Output, Blood...	14	***Marieb EX 33****: Human CV Physiology: BP and Pulse*
10/30	Immune System	15	***Marieb EX 35****: The Lymphatic System (omit Activity 3)*
Week 11:			
11/4	***Quiz 5*****;** Respiratory Physiology	16	***Marieb EX 37***: Respiratory System Physiology – **Biopac**
11/6	Physiology of Kidneys	17	***Lab Exam 4*** **(***Blood; CV Physio; Lymphatic; Respiratory***)**
Week 12:			
11/11	**Veterans Day**		
11/13	**Lecture Exam 4**	**13 – 16**	***Marieb EX 41*****:** Urinalysis **(wet lab)**
			Prelab due 11/13 by 8 am
Week 13:			***Marieb EX 39:*** *Digestive System Processes…* ***(wet lab)***
11/18	The Digestive System	18	*Prelab due 11/18 by 8 am*
11/20	***Quiz 6;*** Regulation of Metabolism	19	***Marieb EX 43***: *Physiology of Reproduction: Gametogenesis and the Female Cycles*
Week 14:			
11/25	The Reproductive System	20	***Marieb EX 45***: *Principles of Heredity*
11/27	Review		**Group Project Report Due 11/27**

Week 15: 12/2 12/4	 **Group Project Presentations** **Group Project Presentations**		 Review
Week 16: 12/9 12/11	 **Lecture Exam 5** **Final (Cumulative) Exam**	 **17 – 20**	 **Lab Exam 5** *(Urinalysis; Digestive; Reproduction, Heredity)*

Homework Due Dates (Note: homework due by 8 am – no late homework accepted)
Metrics Handout ***Due 8/29***
PhysioEx 1: Cell Transport Mechanisms and Permeability ***D*****ue 9/5**
Calculation Worksheet Handout **Due 9/10**

ATP Worksheet Handout ***Due 9/12***
PhysioEx 4: *Endocrine System Physiology* **Due 9/19**
PhysioEx 2: *Skeletal Muscle Physiology* **Due 9/24** *Group Work* ***Due 9/26***
PhysioEx 3: *Neurophysiology of Nerve Impulses* **Due 10/8**
PhysioEx 11; *Blood Analysis* **Due 10/15**
PhysioEx 5: *Cardiovascular Dynamics* **Due 10/24**
PhysioEx 6: *Cardiovascular Physiology* **Due 10/29** ***Case Study*** **Due 10/31**
PhysioEx 7: *Respiratory System Mechanics* **Due 11/5**
PhysioEx 9: *Renal System Physiology* **Due 11/15**
PhysioEx 10: *Acid-Base Balance* **Due 11/19**

Fall 2019
Division of Health Sciences and Athletics
Introduction to Kinesiology and Physical Education
PE 277, Section 8470
MW, 1:00p-2:25p

Instructor: Heather Cordovil Email: hdohy@elcamino.edu
Division Office: Health Sciences and Athletics, ART-B-101
Division Office Hours: 7:45a-4:30p, Monday- Thursday

- **Course Description:** This course introduces the academic disciplines of Kinesiology and Physical Education through an examination of their historical, professional, and philosophical foundations. Specialties such as exercise science, biomechanics, athletic training, fitness, teaching, coaching, sport psychology, and adapted physical education are surveyed for their scope and career options.

- **Student Learning Outcomes:**
  1. Students will identify and describe the basic concepts of Kinesiology.
  2. Students will identify and describe the pathways and requirements for career opportunities in the field of Kinesiology.
  3. Students will identify and describe the historical, ethical, and philosophical foundations of Kinesiology.

- **Course Objectives:**
  - Analyze career options in kinesiology, exercise physiology, biomechanics, athletic training, fitness, sport psychology, physical education, and adapted physical education.
  - Ascertain the education and credentialing requirements for specific careers in kinesiology and physical education.
  - Integrate knowledge of exercise science and sport psychology with teaching and coaching applications.
  - Assess and evaluate the emerging role of exercise science as a primary prevention for degenerative diseases.

- **Textbook:** Introduction to Kinesiology, 5th Ed., Hoffman & Knudson, 2018. ISBN #9781492559931

- **General Class Policies:**
  - **Please turn off all electronic devices.**
  - **Headphones are not to be worn during class or exams.**
  - Courtesy, kindness, and respect are great human qualities to be cultivated.
  - Eating and drinking in class are discouraged.
  - Children or guests are not allowed in classrooms. All visitors and volunteers must have district approval.
  - If instructor does not appear or communicate with class within the first 10 minutes, that class is cancelled.

- **Grading:**
  - Exams: A combination of multiple choice, true/ false, matching, etc. No scantron, blue book, etc. will be necessary for these tests. Dates of these exams will be given at a later time.
    - Makeups will not be allowed unless proof of an unavoidable emergency can be given. If you are absent on the day of an exam without any communication with the instructor, you will receive a score of zero for that test.

  - Homework: Assignments are expected to be submitted on the due date, as specified. Late homework assignments will be accepted up two class meetings after the stated due date. **However, 5 points will automatically be deducted for each class meeting that the assignment is late.**
    - No assignments will be accepted via email or as digital copies. **All assignments must be submitted as a hard copy and typed, unless noted otherwise.**

- In-Class Assignments: There will be 3 in-class assignments given throughout the semester to be completed during class time. Each of these are worth 10 points. If you are absent on the day of an in-class assignment, you will not be able to make up those points.

- Group Presentation: Details will be given at a later time.

- Major and Career Analysis Paper: **No late submittals will be accepted!** All papers must be typed and submitted no later than **Wednesday, November 20**. Further details will be given at a later time.

- Attendance: Attendance is mandatory and essential for success. Problems with coming to class should be discussed with the instructor, when possible, before the class is missed. Missed classes without prior communication with the instructor will result in loss of participation points. You may be dropped for excessive absences. Please refer to the college catalog attendance section for clarification.
  - **0-3 absences= 20 points**
  - **4-6 absences= 17 points**
  - **7-9 absences= 15 points**
  - **>9 absences= 10 points**
  - Tardiness will not be tolerated. If you arrive 5 minutes or more after the course start time, you are considered tardy. **3 tardy arrivals will equal 1 absence.**
  - Class participation is considered as verbal and non-verbal contributions (i.e. comments, questions, interaction with others, etc.)

- **Point Distribution:**

	Point Value
Midterm	40
Final Exam	40
Homework (3)	45
In-Class Assignments (3)	30
Group Presentation	45
Major and Career Analysis Paper	25
Participation and Attendance	20
Total	245

Grading Scale:
A= 90% or above (220-245 points)
B= 80-89% (196-219 points)
C= 70-79% (171-195 points)
D= 60-69% (147-170 points)
F= 59% or below (146 points or below)

- **Withdraws:** In the event that you choose to withdraw from the course, the burden of following through with the withdrawal process is your responsibility. Please refer to the College Catalog for more detail.

- **Incomplete in the Course:** An “incomplete” grade will not be given unless the student has a legitimate personal crisis that prevents them from finishing the course on time. Students receiving an incomplete must be doing passing work up to that point. If such an occurrence happens, it is the student’s responsibility to contact the instructor immediately to explain the situation and make plans.

- **Religious Observances**: Please notify the instructor in advance of any religious observances that interfere with class attendance.

- **Students with Disabilities**: El Camino College has a tradition of providing access to education for students with disabilities. For further information, see the El Camino College Catalog or Special Resource Center. Students with disabilities should inform the instructor especially if there are medical problems or learning disabilities. Accommodations may be provided as recommended by the Special Resource Center.

- **Academic Integrity**: All students will observe the student code of conduct as specified in the college catalog. **Cheating, plagiarism, or class disruption will not be tolerated. Any student found to be in violation will be subject to appropriate campus process**.

- **Important Dates and Deadlines**:
  - September 2 (Mon): **Labor Day, campus closed**
  - September 6 (Fri): Last day to add classes. Last day to drop without notation
  - November 11 (Mon): **Veteran's Day, campus closed**
  - November 20 (Wed): **Last day to turn in Major and Career Analysis Paper**
  - November 15 (Fri): Last day to drop with a "W"
  - **December 11 (Wed): Last day of class, Final Exam**