

EDISON STATE COLLEGE

CURRICULUM COMMITTEE
NEW/EXPERIMENTAL COURSE PROPOSAL FORM

TO: CURRICULUM COMMITTEE
FROM: Theo Koupelis
PRESENTER: Connie Allen
DATE: 4/17/09

Is the course being offered first as an experimental course? yes no

Course Name, including prefix and number: BSC 1084C: Anatomy and Physiology

Verified with VPAA office? yes no

Class credits: Lab credits: Combined lab & class credits: 4

Chose one: Degree core requirement Elective General education

Repeatable for duplicate credit? (i.e., applied music courses) yes no

Prerequisites: Successful completion of all developmental courses and corresponding state exit exams.

Classification: AA PSV PSAV BAS BS

ICS Code: Banner Major Code:

Major Restriction? yes no (meaning only declared majors may take the course)

Indicate all modalities in which the course may be taught: Class Lecture Clinical
 Laboratory Lecture/Lab Combined Accelerated Internship
 Practicum WebCT Internet WebCT Class Lecture WebCT Laboratory
 WebCt Blended Learning WebCT Lecture/Lab Combined

Course fee amount, if any: \$20 (Attach course fee worksheet)

NOTE: Course fees are presented to the District Board of Trustees in November. If approved, fees take effect the following fall term.

JUSTIFICATION FOR CURRICULUM ACTION, OTHER EXPLANATORY INFORMATION:

This course was created in support of the EMS Program as a result of a request by Kim Gresham, Associate Dean of Law & Public Safety Programs. It is a combination of our existing A&P I and A&P II classes to be offered online so that students (with unconventional work schedules) at all campuses can take it.

TERM IN WHICH PROPOSED ACTION WILL TAKE EFFECT: Fall 2009

(For any term other than fall of the academic year following submission, approval of the Vice President of Academic Affairs is required.)

(Vice President of Academic Affairs)

FACULTY ENDORSEMENTS/COMMENTS:

This proposal has the support of our faculty teaching A&P classes and of the Learning Outcomes Associate.

LEARNING OUTCOMES ASSOCIATE: _____ **DATE:** _____

DEPARTMENT CHAIR ENDORSEMENT: _____ **DATE:** _____

ACADEMIC DEAN'S ENDORSEMENT: _____ **DATE:** _____

After review and signing this proposal, the DEPARTMENT CHAIR will forward the proposal to the DISTRICT DEAN for final signature. The DISTRICT DEAN will then return the proposal to the DEPARTMENT CHAIR.

DISTRICT DEAN'S ENDORSEMENT: _____ **DATE:** _____

The DEPARTMENT CHAIR will process the proposal into a continuous document with any other proposals from his/her department being submitted for review by the Curriculum Committee and forward the document to the CURRICULUM COMMITTEE CHAIRPERSON by the Friday before the next scheduled Curriculum Committee meeting.

EDISON STATE COLLEGE
Division of Arts and Sciences

COMMON COURSE SYLLABUS

Professor: _____ **Office Location:** _____
E-mail: _____ **Phone Number:** _____
Office Hours: _____ **Semester:** _____

I. COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDIT HOURS:

BSC 1084C: Anatomy and Physiology – AA **4 Credits**

This is a one semester combined lecture/lab course in human anatomy and physiology designed for students in the paramedic program at Edison State College. It includes principles and concepts of chemistry and biochemistry. Concepts related to the cell and tissues are covered in conjunction with concepts related to the structure and function of the body systems. Each system is presented in sufficient depth to provide students with a comprehensive understanding of the human body. This course is an introduction to anatomy and physiology, chemistry, the cell, tissues, and the following systems: integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive. This course cannot be used as a substitute for any other anatomy and physiology course at Edison State College.

II. PREREQUISITES FOR THE COURSE:

Successful completion of all developmental courses and corresponding state exit exams.

III. GENERAL COURSE INFORMATION:

- Introduction to anatomy and physiology
- Chemistry
- Cells
- Tissues
- Integumentary system
- Skeletal system
- Muscular system
- Nervous system
- Special senses
- Endocrine system
- Cardiovascular
- Lymphatic system
- Endocrine system
- Immune system
- Respiratory system
- Digestive system
- Urinary system
- Reproductive system

IV. LEARNING OUTCOMES AND ASSESSMENT:

General Education Competencies:

General education courses must meet at least four of the following outcomes. All other courses will meet one or more of these outcomes.

At the conclusion of this course, students will be able to demonstrate the

following competencies:

Communication (COM): To communicate (read, write, speak, listen) effectively using standard English and apply effective techniques to create working relationships with others to achieve common goals.

Critical Thinking (CT): To demonstrate skills necessary for analysis, synthesis, and evaluation.

Technology/Information Management (TIM): To demonstrate the skills and use the technology necessary to collect, verify, document, and organize information from a variety of sources.

Global Socio-cultural Responsibility (GSR): To identify, describe, and apply responsibilities, core civic beliefs, and values present in a diverse society.

Scientific and Quantitative Reasoning (QR): To identify and apply mathematical and scientific principles and methods.

Additional Course Competencies:

At the conclusion of this course, students will be able to demonstrate the following additional competencies:

Learning Outcomes	Assessments	Gen. Ed. Competencies
Define homeostasis, explain homeostatic control mechanisms, and give examples of conditions that are maintained in the human body.	Lecture exam.	COM, CT
Use correctly anatomical terminology.	Successful completion of the appropriate lab exercise and utilization of appropriate terminology throughout the course.	COM
Describe the functions of ions, water, acids, and bases in the human body.	Successful completion of the appropriate lab exercise, lab practical and lecture exam.	COM, CT
Discuss the differences in structure and function in these macromolecules: carbohydrates, lipids, proteins, and nucleic acids	Successful completion of the appropriate lab exercise and lecture exam.	COM, CT
Explain the role of enzymes.		COM
Identify the major cellular organelles and discuss their function.	Successful completion of the appropriate lab exercise, lab practical and lecture exam.	COM
Explain how substances move into and out of cells.	Successful completion of the appropriate lab exercise and lecture exam.	COM, CT
Compare and contrast mitosis and meiosis.	Successful completion of the appropriate lab exercise and	COM,CT

	lecture exam.	
Compare and contrast the characteristics, classification, location, and function of the four primary tissues and use correctly a microscope to identify tissues.	Successful completion of the appropriate lab exercise, lab practical and lecture exam.	COM, CT
Describe the structure and summarize the functions of the different parts of the integumentary system.	Successful completion of the appropriate lab exercise, lab practical and lecture exam.	COM
Discuss the types and significance of burns.		COM, CT
Differentiate the two ossification processes and summarize the events involved in the remodeling and repair of bones.	Successful completion of the appropriate lab exercise and lecture exam.	COM, CT
Identify the bones and major bone markings on the axial and appendicular skeleton.	Successful completion of the appropriate lab exercise and lab practical exam.	COM, GSR, TIM
Describe the structure of various joints, demonstrate the types of movements these joints allow, and describe the factors that determine the stability of joints.	Successful completion of the appropriate lab exercises, lecture exam and lab exam.	COM, CT, GSR, TIM
Describe gross anatomy and the microscopic anatomy of skeletal muscle and describe the mechanism of contraction of a skeletal muscle cell.	Lecture exam and lab exam.	COM, CT
Describe skeletal muscle metabolism, sketch aerobic and anaerobic cellular respiration, and explain the effect of exercise on muscles.	Successful completion of the appropriate lab exercise, lab practical and lecture exam.	COM, GSR, TIM
Identify the major muscles of the body on models and demonstrate their actions.	Successful completion of the appropriate lab exercise and a lab practical exam.	COM
Describe the characteristics, structure, and function of the nervous system cells (including neurons and glial cells), appraise their differences, and summarize how neurons transmit information to other neurons or skeletal muscles.	Successful completion of the appropriate lab exercise, lab practical and lecture exam.	COM, CT, GSR, TIM
Describe the structure and function of the central nervous system (CNS), analyze how information is processed and conducted throughout the CNS, identify how the CNS is protected, and identify and describe the function of the cranial nerves.		COM, CT, GSR, TIM
Describe the components of the peripheral nervous system (PNS) and discuss how they convey sensory information to the CNS and motor output to effector organs; also, identify and describe the function of the spinal nerves.	Successful completion of the appropriate lab exercises, lecture exam and lab exam.	COM, CT, GSR, TIM
Construct the components of a reflex arc,	Successful completion of the	COM, CT

discuss the function and importance of spinal reflexes, and demonstrate given reflexes.	appropriate lab and lecture exam.	
Compare and contrast the somatic and autonomic nervous systems (ANS) and compare and contrast the structure and function of the sympathetic and parasympathetic branches of the ANS.	Successful completion of the appropriate lab exercise, lab practical and lecture exam.	COM, CT, GSR, TIM
Describe the structure and function of the special sense organs, and analyze how they convert sensory information into nerve impulses and how the input is integrated.		COM, CT, GSR, TIM
Identify the major endocrine organs, describe each of their hormones and the control of their release, and analyze the role of each hormone in homeostasis.		COM, CT, GSR, TIM
Analyze the composition, physical characteristics and functions of blood, and explain the process of hemostasis and the associated disorders.	Successful completion of the appropriate lab exercise, lab practical and lecture exam.	COM, CT
Describe the gross and microscopic anatomy of the heart, diagram the pathway of blood through the heart, and describe the contraction of cardiac muscle cells.	Successful dissection of a preserved heart, identifying the heart structures including coronary vessels on models in a practical exam, and by taking a lecture exam.	COM, CT
Explain how the cardiac conduction system controls cardiac contraction and correlate the events of the cardiac cycle.	Successful completion of a lecture exam and correct interpretation of EKG's.	COM, CT, GSR
Calculate cardiac output and describe associated homeostatic imbalances.	Successful completion of a lecture exam.	COM, CT
Describe the structure of blood vessels and outline the factors affecting blood flow, the control of blood flow through the body tissues, and the movement of fluids and nutrients across the capillary wall.		COM, CT
Identify the major blood vessels and circulatory pathways on models.	Successful completion of a lab practical exam.	COM, CT
Describe the structure and function of lymphoid cells, tissues, vessels and organs and explain the formation of lymph.	Successful completion of a lecture exam and lab exam for the lymphatic system.	COM, CT
Summarize the first and second line of nonspecific defense mechanisms and compare and contrast antibody mediated and cell mediated immunity.		COM, CT, GSR

Describe the structure and function of the respiratory system organs, the mechanics of breathing, the control of ventilation, and describe the respiratory volumes and capacities.	Successful completion of a lecture exam, a spirometry lab, and a lab practical.	COM, CT, GSR
Compare and contrast the structure, function, and control of the digestive system organs.	Successful completion of a lecture exam and a lab practical.	COM, CT
Describe the structure and function of the urinary system organs, identify urinary system structures on models, and explain how dilute and concentrated urine are formed.		COM, CT
Summarize water, electrolyte, and acid-base balance and their effect on homeostasis.	Successful completion of a lecture exam.	COM, CT
Describe blood pressure homeostasis by correlating the neuronal and hormonal control mechanisms for cardiac output, peripheral resistance, and blood volumes.		COM, CT
Describe the structure and function of the male and female reproductive organs and identify these organs on models.	Successful completion of a lecture exam and lab practical.	COM, CT
Diagram spermatogenesis, oogenesis, ovarian cycle, and the uterine cycle and explain the hormonal control of the male and female reproductive systems.		COM, CT, GSR
Describe the events in fertilization, and the progression of fetal development events.		COM, CT, GSR

V. DISTRICT-WIDE POLICIES:

Programs for Students with Disabilities

Edison State College, in accordance with the Americans with Disabilities Act and the College's guiding principles, offers students with documented disabilities programs to equalize access to the educational process. Students needing to request an accommodation in this class due to a disability, or who suspect that their academic performance is affected by a disability should contact the Office of Adaptive Services at the nearest campus.

Lee Campus	Taeni Hall S-116A	(239) 489-9427
Charlotte Campus	Student Services SS-101	(941) 637-5626
Collier Campus	Admin. Bldg. A-116	(239) 732-3918
Hendry/Glades Ctr.	LaBelle H.S.	(863) 674-0408

VI. REQUIREMENTS FOR THE STUDENTS:

List specific course assessments, such as class participation, tests, homework assignments, make-up procedures, etc.

VII. ATTENDANCE POLICY:

The professor's specific policy concerning absence. (The College policy on attendance is in the Catalog, and defers to the professor.)

VIII. GRADING POLICY:

Include numerical ranges for letter grades; the following is a range commonly used by many faculty:

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

(Note: The "incomplete" grade ["I"] should be given only when unusual circumstances warrant. An "incomplete" is not a substitute for a "D," "F," or "W." Refer to the Edison Catalog for the policy on "incomplete" grades.)

IX. REQUIRED COURSE MATERIALS:

X. RESERVED MATERIALS FOR THE COURSE: Other special learning resources.

XI. CLAST COMPETENCIES INVOLVED IN THE COURSE:

XII. CLASS SCHEDULE:

This section includes assignments for each class meeting or unit, along with scheduled Learning Resource Center (LRC) media and other scheduled support, including scheduled tests.

XIII. ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:

Include other info/procedures/policies that would be useful to the students in the class, if appropriate.