Course Change Proposal
Form A

Academic Group (College):
Natural Sciences & Mathematics

Academic Organization (Department):
Biological Sciences

Type of Course Proposal:
New X Change Deletion

Department Chair:
Rose Leigh Vines

Does this course fulfill a requirement for single-subject or multiple subject credential students? Yes No X

For Catalog Copy: Yes X No

CCE (Extension): Yes No X

Submitted by:
Winston Lancaster

Semester Effective:
Fall X Spring , 2012

This course replaces experimental course Subject Area (prefix) and Catalog Nbr (course number):

If changing an existing course, should new version be considered a repeat of the original version? If so, the same Course ID will be maintained. If not, a new Course ID will be assigned. Note: In PeopleSoft terminology, the Course ID is the unique system identifier, not the Catalog Nbr.

Yes No X

Change from:
Subject Area (prefix) & Catalog Nbr (course no.): Title: Units:

Change to:
Subject Area (prefix) & Catalog Nbr (course no.): Title: Human Gross Anatomy for Physical Therapists Units: 3.0

JUSTIFICATION:
The proposed course replaces BIO 233, which was taught to students in the M.S. program in Physical Therapy. This new course is for the new Doctor of Physical Therapy Program and required for Program accreditation. The course content reflects more in-depth study than BIO 233 and reflects on the core concepts, especially developing a greater understanding of cross sectional anatomy.

NEW COURSE DESCRIPTION: (Not to exceed 80 words, and language should conform to catalog copy. See http://www.csus.edu/umanual/acad.htm - Guidelines for Catalog Course Description

BIO 633. Human Gross Anatomy for Physical Therapists. Study of the gross anatomy of selected regions of the human body. Emphasis will be placed on musculoskeletal, neurovascular and anatomy of the joints of the back, thoracic wall, abdominal wall, upper limb and lower limb. Anatomical relationships will be reinforced through study of cross-sectional anatomy. Lecture two hours; laboratory three hours. Note: Course designed for students enrolled in the Doctor of Physical Therapy Program. Prerequisite: BIO22 or consent of instructor. Graded: Graded Student. Units: 3.0

Note:

Prerequisite: BIO 22 or consent of instructor.
Enforced at Registration: Yes X No
Corequisite: PT 600, PT 602, PT 608, PT 630
Enforced at Registration: Yes No X

Graded: Letter X Credit/No Credit

Instructor Approval Required? Yes X No

Course Classification (e.g., lecture, lab, seminar, discussion):
lecture, lab C2, C16

Title for CMS (not more than 30 characters)
Human Gross Anat Phys Ther

Cross Listed? Yes No X

If yes, do they meet together and fulfill the same requirement, and what is the other course.

How Many Times Can This Course be Taken for Credit? 1

Can the course be taken for Credit more than once during the same term? Yes No X
FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:

Description of the Expected Learning Outcomes: Describe outcomes using the following format: “Students will be able to: 1), 2), etc.” See the example at http://www.csus.edu/acaf/example.htm

Upon completion of this course students will demonstrate professional effectiveness by being able to:

1) describe the regional organization of the human body and the organization of the major body systems within each region;
2) communicate verbally, in writing and with drawings details of the muscular, skeletal and peripheral neuronal morphology of the human body.
3) explain the relationships of muscular, neurovascular and connective tissue structures in relationship to bony structures of joints in cross-sectional images.

Required readings / resources:
1) Clinically Oriented Anatomy, 6th ed., Moore, Dalley and Agur, 2010, Lippincott Williams & Wilkens
3) Virtual Human dissector http://www.toltech.net/

**Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean's office, not Academic Affairs.

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above:

Grades in this course are based on four laboratory practical exams (50 points each), four cross-sectional anatomy quizzes which will be administered online (50 points each), two written exams (100 points each) and an oral presentation in the laboratory (50 points). The laboratory practicals will focus on identification of structures and will not be comprehensive. Written exams will consist of a mixture of multiple choice, short answer and discussion questions. Each student will give one oral presentation with a partner on a pathological issue related to the subject of a particular lab.

For whom is this course being developed?
Majors in the Dept ___ Majors of other Depts ___ Minors in the Dept ___ General Education ___ Other ___

Is this course required in a degree program (major, minor, graduate degree, certificate)? Yes ___ No ___

If yes, identify program(s): Doctor of Physical Therapy

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)? Yes ___ No ___

If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any). Doctor of Physical Therapy

The Department Chair’s signature below indicates that affected programs have been sent a copy of this proposal form.

Accessibility: Following course approval, and prior to the start of the semester in which the new or revised course will be taught for the first time, an accessibility checklist [available at http://www.csus.edu/accessibility/checklist.html] shall be completed and submitted to the appropriate Dean’s office. An accessible syllabus shall also be made available online, preferably prior to the start of that semester’s open registration period.

Approvals: If proposed change, new course or deletion is approved, sign and date below. If not approved, forward without signing to the next reviewing authority, and attach an explanatory memorandum to the original copy.

Signatures: 

<table>
<thead>
<tr>
<th>Department Chair:</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2/24/11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College Dean or Associate Dean:</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3/10/11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CPSP (for school personnel courses ONLY)</th>
<th>Date</th>
</tr>
</thead>
</table>

| Associate Vice President and Dean for Academic Programs |

Distribution: Academic Affairs (original), Department Chair and College Dean. Dean’s office to send original after approval to Academic Affairs, at mail zip 6016. An electronic copy must also be sent.

5/20/2010
HUMAN GROSS ANATOMY FOR PHYSICAL THERAPISTS

BIOLOGY 633

DEPARTMENT OF BIOLOGICAL SCIENCES

CALIFORNIA STATE UNIVERSITY, SACRAMENTO

TENTATIVE SYLLABUS AND COURSE SCHEDULE

Revised for DPT Program

FALL SEMESTER, 2012

Instructor:

Winston C. Lancaster, Ph.D., Associate Professor

office: 211D Humboldt Hall
phone: (916) 278 6360,
email: wlancaster@csus.edu
office hours: Tuesday, 13:30 - 15:00
Wednesday, 8:30-10:00, or by appointment
website: http://www.csus.edu/indiv/L/lancasterw/

Lecture: Wednesday, 10:00 – 10:50, Humboldt Hall ***
Friday, 8 – 8:50

Lab-Discussion: Friday, 9:00 – 11:30 and 12:30 – 14:00, 207 and 210 Humboldt Hall exact times to be arranged

Course Objectives

1. This course will review the gross anatomy of the human body in a regional format.
   Upon completion of this course students will be able to describe the regional organization of the human body and the organization of the major body systems within each region. The schedule will match that of PT 200 as closely as possible.

2. Emphasis will be placed on musculoskeletal and somatic neuronal morphology and the structure and function of joints.
   Upon completion of this course students will be able to communicate verbally, in writing and with drawings details of the muscular, skeletal and peripheral neuronal morphology of the human body.

3. This course will introduce students to the principles of cross-sectional anatomy with emphasis on joints.
   Upon completion of the course students will be able to explain the relationships of muscular, neurovascular and connective tissue structures in relationship to bony structures of joints in cross-sectional images.

4. This course will acquaint students with concepts of medical terminology, concentrating on the terminology of the musculoskeletal system.
   Upon completion of the course students will be able to define the roots of terms that are used in medical and anatomical terminology and be able to interpret terminology based on their knowledge of Latin and Greek word roots.

Course Organization

Students should have a basic working knowledge of human musculoskeletal structure prior to entering this course. As such, each lecture will be fast-paced and cover a significant quantity of material. The course will approach the body regionally and focus on the structure of joints and details of muscular relationships, patterns of innervation and blood supply. Cross sectional images will be used as tools to help students gain a better understanding of the three-dimensional relationships of joints. The somatic nerves, the spinal cord and the relationships of visceral nerves to the vertebral column will be examined. Clinical correlations will be drawn within the context of Physical Therapy practice.
Labs will use two anatomy lab facilities. In the donor body lab (Hamblot 207) students will review the structure of bones, muscles and joints, their innervation and blood supply. Cross sectional images will be studied to further illuminate the structure of joints. Each laboratory session will have a list of specific objectives that will be posted on the course website. Meeting these objectives will require preparation prior to lab, the study of osteology, and cross-sectional images in addition to the study of prospected material. Discussion lab sessions (Hamblot 210) will cover modeling, drawing and written descriptions of anatomical structures.

All material, whether covered in lecture, lab, discussion or in textbook may appear on an exam. Students are expected to attend and participate in laboratory and discussion exercises. A schedule of lectures, laboratories, discussions and examinations is attached and is posted on the course website which may be accessed through the instructor’s homepage: (http://www.csus.edu/indiv/L/lancasterw/).

The syllabus and schedule for this course are a plan that will be followed as closely as possible. They do not, however, constitute a contract. Changes to the course schedule and other important information will be posted on the course website.

Text and other materials

Williams & Wilkens (5th edition 2006) is acceptable

A cross-sectional anatomy resource to be identified

The Human Anatomy Videotape Series

A series of videotaped lessons by CSUS Professor Rose Leigh Vines is available on the SacCT site for the course. These lessons cover the body by region and are an invaluable resource for preparation and study.

Lab clothing:

Students are required to wear a clean lab coat, close-toed shoes and eye protection at all times in the donor body laboratory. Lab coats may be stored in the lab, and students are asked to wear a nametag on their coats. Lab coats donated by former anatomy students are available for use or students may purchase their own. Gloves and safety glasses will be provided. You may store the lab clothing in the lockers in Hamblot Hall (see below).

Evaluation

Grades in this course are based on four laboratory practical exams (50 points each), four cross-sectional anatomy quizzes which will be administered online (50 points each) and two written exams (100 points each) and an oral presentation in the laboratory (50 points). The laboratory practicals will focus on identification of structures and will not be comprehensive. Written exams will consist of a mixture of multiple choice, short answer and discussion questions. The second exam will be given in the time assigned for the final exam. Students will prepare oral presentations in teams of two. The format of these presentations is described in an addendum to the syllabus. Please understand that there is no separation between lab and lecture as concerns exam material.

Final letter grades will be based on 650 points by the following scale: A(-)≥405; B(+) = 404-360;
C(±) = 359-315; D(±) = 314-270; F<270.

Grades are final. They are not negotiable and work for extra credit will not be assigned.

Policy on Make-up of Graded Exercises

It is in the best interest of students that all tests are taken at the scheduled time. A student who anticipates that he or she may be unable to take an exam or practical at the scheduled time should make every effort to inform the instructor prior to the beginning of the exam by a phone message (either to the instructor’s voice mail or to the office of the Department of Biological Sciences), by email or in person. Make-up tests will be given only upon documentation of a valid reason for missing the exam. A make-up may take the form of a multiple choice, discussion and/or an oral exam at the discretion of the instructor. Make-up practicals will take the form of an oral or computer-based test at the discretion of the instructor.

Academic dishonesty in any form will not be tolerated.
Violators will be subject to removal from the course (resulting in a grade of F), and disciplinary action as described in the University catalog and in the University Policy Manual (http://www.csus.edu/admbus/umanual/UMA00150.htm).

Course policies

Lecture
The use of cellular phones or any other remote communication devices (including wireless internet) is not allowed during lecture. Students are requested to turn off any such devices upon entering the lecture hall. Persons that violate these rules will be asked to leave. The use of any communication device during a test will be interpreted as evidence of academic dishonesty.

Cell phones are never allowed in the anatomy lab at any time. You may leave them in a locker outside the lab.

The Laboratory and Discussion
Students are expected to take a respectful and professional approach to the laboratory. The laboratory is small. It contains hazardous chemicals and sharp instruments may be in use. Boisterous behavior will not be tolerated. Students are expected to help keep the laboratory clean and neat. Small pieces of tissue and fat should be placed in the designated tissue-waste container, along with any paper towels soiled with fat or embalming fluid. Material that falls to the floor should be collected and disposed. The tissue-waste container is not for general trash.

Cell phones, cameras or any electronic device that contains a camera are not allowed in the laboratory at any time. Photography of donor bodies is strictly prohibited. Any student who violates this policy will be removed from the course, subject to disciplinary proceedings and assigned a grade of "F."

Visitors are not permitted in the laboratory unless they have a clear professional interest, and then only with consent of the course director.

Radios, televisions, ipods and other entertainment devices are not permitted in the laboratory.

Lockers
Lockers in the hall outside the anatomy lab are reserved for your use. Place a lock on one and note the number. Go to the Biological Sciences departmental office (Sequoia 202) and enter this information in the locker registration folder.

Health and Safety
Every effort is made to reduce the hazards of working with donor bodies, but it is incumbent on students to be aware of the hazards that are unavoidable and to exercise proper precautions to safeguard health and safety. Every student is responsible for his/her own safety and must complete a laboratory safety awareness form.

- Prospective donor bodies are screened for disease, and are rejected if there is reason to believe that the individual may have suffered from any of the following illnesses: Human Immunodeficiency Virus (AIDS virus), Hepatitis B, Hepatitis C, Creutzfeldt-Jakob disease, Kuru, Amyotrophic Lateral Sclerosis, Multiple Sclerosis, Tuberculosis
- Few microbes are able to survive the embalming process, and fewer still survive in fixed bodies that have been used for several years.
- Your primary hazard is chemical exposure, and measures must be taken to protect yourself.
- Students are required to wear a clean laboratory coat with nametag at all times in the anatomy laboratory. Coats should be washed regularly.
- Sandals and open-toed shoes are not allowed in lab. You may want to keep shoes for lab in a locker.
- Safety glasses must be worn in the laboratory at all times.
- Gloves will be provided and must be worn at all times while handling fixed anatomical material.
- Students are advised not to wear contact lenses into the anatomy laboratory as fumes from the embalming fluid can sometimes damage lenses and irritate the eyes.
- Any injury, no matter how minor must be reported to a member of the faculty.
- Rarely, a student may find him/herself to be sensitive to the embalming fluid. This is usually indicated by one or more symptoms, including headache, asthma, persistent tearing or skin rash.
REVIEW OF HUMAN GROSS ANATOMY

If you experience any of these symptoms in relation to your time in the laboratory you should consult the instructor.

• *Eating, drinking and use of tobacco products are not allowed in the laboratory at any time.*

**Laboratory Materials**

Skeletal material, textbooks and radiographs are provided in the donor body and discussion laboratory and may not be removed. Please return them to their proper places at the end of labs and keep them clean.

**The Donor Bodies**

The bodies available for study and dissection were obtained from individuals who donated their bodies in the hope that their remains would be used for education and research. Anatomy laboratories and the bodies within them must be treated with the greatest respect. The following regulations are set forth with this in mind.

• The persons that bequeathed their remains for the benefit of your education have entirely surrendered their personal privacy. They retain, however, the right of anonymity. Respect their right to confidentiality.
• Anatomical material may never be taken from the dissecting laboratory. Any violation of this regulation will be regarded as a serious offense, the penalties of which may include legal prosecution and dismissal from this course.
• Beyond the intrinsic value of human remains for study, the preparation of prospected anatomical material represents hundreds of hours of labor. These bodies must be treated with the utmost care and delicacy.
• **Further dissection on prospected bodies is strictly forbidden except under the express direction of the instructor. When in doubt, ASK.**
• Human skeletal material, like the fixed donor bodies, represents human remains and must be given equal respect. This material is fragile and costly to replace. Students are expected to handle skeletal material with care; never mark it or use steel instruments as pointers and never remove it from the donor body or discussion laboratory.
• **Donor bodies must be properly maintained:**
  The relentless foes of the dissector are drying and mold; either of which can render an area or the entire specimen valueless for study. Drying can be prevented by keeping the body moist while studying, and within its plastic bag with all areas covered with wet cloths when not being dissected. A special wetting fluid with a mold inhibitor is provided for this; **do not use tap water.** While studying, uncover only those areas to be examined or dissected. During the intervals between labs the large plastic sheet provided should cover the body and tucked under the body to prevent drying. Any mold or suspicion of mold should be promptly reported to the instructor. Without immediate attention, mold can rapidly spread to the entire body and to other donor bodies in the room.
• While you are studying a specimen, apply moistening fluid every 20 minutes.
• **Never leave a body uncovered that is not in use.**

**Access to the Laboratory**

The Human Anatomy Teaching Lab (Humboldt 207) is equipped with a Locknetics electronic locking system. Entry into this lab requires a Tek key. All students enrolled in BIO233 are eligible to be issued a Tek key that will allow access to the lab from 8:00-12:00, 13:00-17:00, Tuesday, Thursday and Friday. Student keys will be set to deactivate at 17:00 on 14 December 2012. Access to the Discussion lab is not available on scheduled class time as this lab is heavily used for other courses.

A request for keys has been submitted for all currently enrolled students. You may collect your key on or after Wednesday 6 Sept. at the Key Issue Office at the Facilities Management Building (278 6421; just west of the Student Health Center). You will be required to present your One Card, and should specify that you are authorized to have a Tek key for 207 Humboldt Hall.

This level of access to the anatomy lab is a privilege. It is contingent upon strict adherence to the rules of the. Abuse of this privilege may result in its immediate revocation. In addition to the rules for use of the lab, the following policies govern access out of lab time.

Syllabus & Schedule
• The Locknetics system has a memory chip that records the specific Tek key used for entry and the time. Therefore if any problem is found in the lab, the last individuals that entered may be held responsible. Understand that if you allow other students to enter when you open the room, you may be held accountable for their actions.

• The lab is open only for the hours that your key is active: 8:00-12:00, 13:00-17:00, Tuesday, Thursday and Friday. You are expected to leave the lab during the lunch hour and at 5:00PM.

• This semester we share this lab with the Neuroanatomy class. Those students will use the lab on Monday and Wednesday. You access may be blocked for the set-up of lab tests in Neuroanatomy, as well as practicals for this course.

• Access is limited to business hours because some responsible party must be available in the event of emergency. In case of emergency you should contact:
  Winston Lancaster in 211D Humboldt Hall.
  Any other member of faculty in the 211 office suite.
  Dr. Lancaster by cell phone (916 947 2143).
  Office of the Department of Biological Sciences (278 6535).
  911 from the red campus phone in the hall

This information will be posted on the lab bulletin board.
Use the red telephone in the hallway if you need to phone 911. Do not use your cell phone.
It is understood that you will only use Dr. Lancaster’s cell phone number in the event of an emergency.

• Individual Tek keys will be deactivated in the following circumstances:
  Students that drop the course
  Students that violate policies of access
  Students that violate established rules of the lab
  In the event of serious violations, all student access will be blocked.

• The anatomy laboratory is small, and cannot accommodate more than the number of students assigned to a lab section. Students must, therefore, attend the lab section in which they are registered.

• During the open lab times, the limits on the number of students in the lab remain in effect. During use of the lab outside of scheduled times, students are expected to comply with all safety regulations and cooperate with fellow students so that all may have fair access to the lab for study.

• This access is a privilege that may be revoked if abused.

Your continued registration in this course implies your knowledge and acceptance of these policies.
<table>
<thead>
<tr>
<th>Week/Date</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 29/31 August</td>
<td>Introduction; Vertebral column and Sacroiliac joint; Introduction to Cross-sectional Anatomy</td>
</tr>
<tr>
<td>2 – 5/7 September</td>
<td>Musculature of Back; Spinal cord; Cross-sectional Anatomy of the vertebral column</td>
</tr>
<tr>
<td>3 – 12/14 September</td>
<td>Bony pelvis, Hip joint &amp; Gluteal Region; Cross-sectional Anatomy of the Hip and Sacroiliac Joints</td>
</tr>
<tr>
<td>4 – 19/21 September</td>
<td>Lab Practical 1; Thigh and knee joint; Cross-sectional Anatomy of the Knee</td>
</tr>
<tr>
<td>5 – 26/28 September</td>
<td>Leg, and ankle; Cross-sectional Anatomy of the Ankle</td>
</tr>
<tr>
<td>6 – 3/5 October</td>
<td>Foot</td>
</tr>
<tr>
<td>7 – 10/12 October</td>
<td>Muscles of neck and mastication; Temporomandibular joint; Cross-sectional Anatomy of the TMJ</td>
</tr>
<tr>
<td>8 – 19 October</td>
<td>First Lecture Exam, and Lab Practical 2</td>
</tr>
<tr>
<td>9 – 24/26 October</td>
<td>Rib, sternum; Thoracic and abdominal walls</td>
</tr>
<tr>
<td>10 – 31 Oct/2 November</td>
<td>Bones and Joints of pectoral girdle; Brachial plexus; Cross-sectional Anatomy of the Shoulder</td>
</tr>
<tr>
<td>11 – 7/9 November</td>
<td>Musculature of the shoulder and arm; Elbow joint; Cross-sectional Anatomy of the Elbow</td>
</tr>
<tr>
<td>12 – 14/16 November</td>
<td>Lab Practical 3; Musculature of the forearm, wrist and hand; Cross-sectional Anatomy of the Wrist</td>
</tr>
<tr>
<td>13 – 23 November</td>
<td>Thanksgiving Holiday</td>
</tr>
<tr>
<td>14 – 28/30 November</td>
<td>Autonomic Nervous system, lecture; Sympathetic N.S., Thoracic viscera; Cross-sectional Anatomy of Thoracic viscera.</td>
</tr>
<tr>
<td>15 – 5/7 December</td>
<td>Abdominal and pelvic viscera; Cross-sectional Anatomy of Abdominal and Pelvic viscera.</td>
</tr>
<tr>
<td>TBA</td>
<td>Second Lecture Exam and Lab Practical 4</td>
</tr>
</tbody>
</table>