**Course Change Proposal**

**Form A**

<table>
<thead>
<tr>
<th>Academic Group (College):</th>
<th>Academic Organization (Department):</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Human Services</td>
<td>Physical Therapy</td>
<td>02-22-11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Course Proposal:</th>
<th>Department Chair:</th>
<th>Submitted by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>New X Change Deletion</td>
<td>Susan M. McGinty, PT, EdD</td>
<td>B. Stockert, PhD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Does this course fulfill a requirement for single-subject or multiple subject credential students?</th>
<th>For Catalog Copy:</th>
<th>Semester Effective:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes No X</td>
<td>Yes X No</td>
<td>Fall X Spring 20 12</td>
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<table>
<thead>
<tr>
<th>Prefix &amp; No.</th>
<th>Title:</th>
<th>Units:</th>
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<tbody>
<tr>
<td>PT 630</td>
<td>Pathophysiology</td>
<td>3</td>
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</table>

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

**Change from:**

<table>
<thead>
<tr>
<th>Subject Area (prefix) &amp; Catalog Nbr (course no.):</th>
<th>Title:</th>
<th>Units:</th>
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**Change to:**

<table>
<thead>
<tr>
<th>Subject Area (prefix) &amp; Catalog Nbr (course no.):</th>
<th>Title:</th>
<th>Units:</th>
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**JUSTIFICATION:**

This course is being developed as a new course for the DPT curriculum. Previously, Pathophysiology was offered on this campus as an undergraduate course and was a prerequisite for the MPT program. This new course allows the course to be taught in greater depth and ensures the conditions addressed are those needed by physical therapist professionals.

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

This course is designed to promote the understanding and application of fundamental disease processes in clinical settings. General concepts of disease, including etiology, pathogenesis, morphology, and clinical significance are discussed within the context of cases. General pathophysiology concepts include: cell injury, necrosis, inflammation, wound healing and neoplasia. These concepts are applied in a systems-oriented approach to disease processes affecting musculoskeletal, cardiopulmonary, renal, nervous, gastrointestinal, immune, hematological and endocrine systems. Open to Physical Therapy Majors Only.

**Note:**

<table>
<thead>
<tr>
<th>Prerequisite: Admission to the DPT program.</th>
<th>Enforced at Registration: Yes X No</th>
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<tr>
<th>Corequisite:</th>
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<tbody>
<tr>
<td>BIO 633</td>
<td>Human Gross Anatomy for Physical Therapists</td>
</tr>
<tr>
<td>PT 600</td>
<td>Pathokinesiology</td>
</tr>
<tr>
<td>PT 608</td>
<td>PT/Patient/Professional Interactions</td>
</tr>
<tr>
<td>PT 602</td>
<td>Evidence Informed Practice 1</td>
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</table>

<table>
<thead>
<tr>
<th>Enforced at Registration: Yes No X</th>
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<tr>
<th>CAN (California Articulation Number):</th>
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<tr>
<th>Graded: Letter X Credit/No Credit</th>
<th>Instructor Approval Required? Yes No X</th>
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<tbody>
<tr>
<td>Course Classification (e.g., lecture, lab, seminar, discussion):</td>
<td>Title for CMS (not more than 30 characters)</td>
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<tr>
<td>---------------------------------------------------------------</td>
<td>------------------------------------------------</td>
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<tr>
<td>Lecture C-02</td>
<td>Pathophysiology</td>
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<tr>
<td>Cross Listed?</td>
<td>If yes, do they meet together and fulfill the same requirement, and what is the other course.</td>
</tr>
<tr>
<td>Yes ___ No X__</td>
<td></td>
</tr>
<tr>
<td>How Many Times Can This Course be Taken for Credit? <em><strong>once</strong></em></td>
<td></td>
</tr>
<tr>
<td>Can the course be taken for Credit more than once during the same term? Yes ___ No X__</td>
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</table>
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/aca/example.htm

In the completion of this course, the student is expected to be able to:

Goal 1.0 Demonstrate Professional Effectiveness
1.1 Compare and contrast normal biological, physiological, and psychological mechanisms of the human body with pathophysiological factors that lead to impaired body functions and structure.

1.1.1 Discuss the etiology and clinical features of major disorders.
   1.1.1.1 Discuss the etiology and clinical features of major disorders for each of the major physiological systems.
1.1.2 Describe how pathological processes affect normal function.
   1.1.2.1 Describe how pathological processes affect normal function for each of the major physiological systems
1.1.3 Discuss common medical/surgical treatments for major disorders.
1.1.4 Analyze the effects of pharmacological agents on human function.

Goal 2.0 Demonstrate Professional Behaviors
2.1 Recognize cultural, ethnic, age, economic, and psychosocial differences and apply a humanistic and holistic approach to the delivery of a clinical service.

2.1.4 Demonstrate behaviors that are non-judgmental with regards to patients/clients’ lifestyles.

2.5 Demonstrate entry level generic abilities, including:
   2.5.1 Professional accountability and commitment to learning.
   2.5.2 Recognition of one’s own limitations.
   2.5.3 Effective use of constructive feedback.
   2.5.4 Effective use of time and resources.

**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:

Assessment Strategies (described within the PT 230 course syllabus)

3 TESTS WILL BE GIVEN
Each test will each be worth 25% of your grade. Tests may include short answer and/or multiple choice questions. All tests will be given in the assigned classroom unless otherwise noted. If you are unable to come to the test at the scheduled time and location you must make arrangements with the instructor prior to the test date. Failure to provide notification in advance of a missed test may result in a score of “0” being recorded for that test.

10 QUIZZES WILL BE GIVEN ON SacCT:
Each quiz is worth 2.5% of your grade and there are 10 quizzes (quizzes count 25% of your total course grade). The due date for each quiz is posted on the weekly schedule. Quizzes are available on SacCT and consists of 10 multiple choice questions. The reading assignment for each quiz is included on the weekly schedule so that you know what material will be covered on each quiz. While quizzes are open book, notes, etc. you are not allowed to receive assistance from anyone during the quiz. You are strongly encouraged to adhere to the academic honesty policy at CSUS by not receiving assistance from someone who has already taken the quiz or providing aid to someone before they take the quiz. To do so would violate the spirit of the academic honesty policy. Each quiz is designed to improve your knowledge of the background material needed to understand the lecture material presented that week. Reading the material and taking the quiz before the lecture will help you understand the lecture better and make you more efficient in your study habits. Each quiz will be available for the 5 days prior to the due date. Access to a quiz on SacCT will close 1 hour prior to the start of class on the due date for that quiz. No exceptions! You have only one attempt at each quiz.
For whom is this course being developed?
- Majors in the Dept. X
- 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 X No __

If yes, identify program(s): DPT

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 X ___

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). Physical Therapy

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

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.

<table>
<thead>
<tr>
<th>Signatures</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Chair:</td>
<td>1-18-11</td>
</tr>
<tr>
<td>College Dean or Associate Dean:</td>
<td>2-22-11</td>
</tr>
<tr>
<td>CPSP (for school personnel courses ONLY)</td>
<td></td>
</tr>
<tr>
<td>Associate Vice President and Dean for Academic Programs</td>
<td></td>
</tr>
</tbody>
</table>

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.
CALIFORNIA STATE UNIVERSITY, SACRAMENTO
College of Health and Human Services
Department of Physical Therapy

PT 630: Pathophysiology

COURSE CREDIT: 3 units (3 hours lecture/week)

INSTRUCTOR: TBA

LOCATION: TBD

TIME: TBD

COURSE DESCRIPTION: This course is designed to promote the understanding and application of fundamental disease processes in clinical settings. General concepts of disease, including etiology, pathogenesis, morphology, and clinical significance are discussed within the context of cases. General pathophysiology concepts include: cell injury, necrosis, inflammation, wound healing and neoplasia. These concepts are applied in a systems-oriented approach to disease processes affecting musculoskeletal, cardiopulmonary, renal, nervous, gastrointestinal, immune, hematological and endocrine systems. Open to Physical Therapy Majors Only.

CO-REQUISITES:
BIO633 Human Gross Anatomy for Physical Therapists
PT 600 Pathokinesiology
PT 602 Evidence Informed Practice I
PT 608 PT/Patient/Professional Interactions


COURSE OBJECTIVES: All course objectives reference the overall educational goals and outcomes of the Department of Physical Therapy. At the completion of this course, the student is expected to be able to:

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2.5.3 Effective use of constructive feedback.

2.5.4 Effective use of time and resources.

TEACHING STRATEGIES AND LEARNING ACTIVITIES:
1. lectures
2. assigned readings
3. case studies
4. slide/videotape presentations, as appropriate
5. class discussions
6. internet assignments

GRADING PROCEDURES:

3 TESTS WILL BE GIVEN – Each test will each be worth 25% of your grade. Tests may include short answer and/or multiple choice questions. All tests will be given in the assigned classroom unless otherwise noted. If you are unable to come to the test at the scheduled time and location you must make arrangements with the instructor prior to the test date. Failure to provide notification in advance of a missed test may result in a score of “0” being recorded for that test.

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GRADING SCALE:
≥92.0 = A  
≥90.0 and <92.0 = A-  
≥88.0 and <90.0 = B+  
≥82.0 and <88.0 = B  
≥80.0 and <82.0 = B-  
≥78.0 and <80.0 = C+  
≥72.0 and <78.0 = C  
≥70.0 and <72.0 = C-  
≥60.0 and <70.0 = D  
<60.0 = F

**Attendance:** Daily attendance and timeliness is expected. Courtesy and professional responsibility requires notification of the instructor for any absence in advance. Failure to notify the professor of an absence can result in lowering your participation grade and is considered unprofessional. Students are responsible for any missed work and may be required to complete make-up assignments.

**Behavioral Expectations:** Students are responsible for appropriate behaviors as defined by the generic abilities. Failure to comply with behavioral expectations during class may result in a student first being warned that behavior is inappropriate, then, if inappropriate behavior continues, a student may be asked to leave a class. Repeated failure to comply with behavioral expectations can lead to failure in the course. Cell phones and beepers should be off or silent (set to vibration mode) during the class. No text messaging is permitted in class. Computers can only be used during class for activities directly related to the classroom activities.

**Special Accommodations:** During the course of the year, some students may utilize prearranged accommodations. If you are a student with a learning disability, physical disability, or other special needs, please let me know as soon as possible if you need special accommodation. These kinds of confidential discussions are best handled during my office hours or by special appointment. You can expect confidentiality and cooperation regarding any circumstances and needs that have been verified through the Office of Services to Students with Disabilities (SSWD).

**Students Should Read and Become Familiar with the University’s Academic Honesty, Policy & Procedures Which Can Be Found At:**

www.csus.edu/admbus/umanual/UMA00150.htm  The following are direct quotes from the first sections of that document:

"The principles of truth and honesty are recognized as fundamental to a community of scholars and teachers. California State University, Sacramento (CSUS) expects that both faculty and students will honor these principles, and in so doing, will protect the integrity of academic work and student grades. CSUS is a publicly-assisted institution legislatively empowered to certify competence and accomplishment in general and discrete categories of knowledge. The President and faculty of CSUS are therefore obligated not only to the world at large but also to California to guarantee that substantive knowledge is actually acquired and the ability to acquire it is actually demonstrated by those to whom they assign grades and whom they recommend for degrees. Academic dishonesty defrauds all those who depend upon the integrity of the University, its courses and its degrees. This fraud is accomplished to the extent that faculty,"
students or campus employees knowingly or unwittingly allow academic dishonesty to work its deception.”

“...Plagiarism is a form of cheating. At CSUS plagiarism is the use of distinctive ideas or works belonging to another person without providing adequate acknowledgement of that person’s contribution. Regardless of the means of appropriation, incorporation of another’s work into one’s own requires adequate identification and acknowledgement. Plagiarism is doubly unethical because it deprives the author of rightful credit and gives credit to someone who has not earned it. Acknowledgement is not necessary when the material used is common knowledge.”
<table>
<thead>
<tr>
<th>Date/week</th>
<th>Topic</th>
<th>Assignment</th>
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</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Course overview, cell biology &amp; injury</td>
<td>Chapters 1, 2</td>
</tr>
<tr>
<td>(2)</td>
<td><strong>Quiz 1</strong> Cell injury &amp; acute inflammation</td>
<td>Chapters 3, 5</td>
</tr>
<tr>
<td>(3)</td>
<td><strong>Quiz 2</strong> Inflammation &amp; wound healing</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>(4)</td>
<td><strong>Quiz 3</strong> Immune system</td>
<td>Chapters 6 &amp; 7</td>
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<td>(5)</td>
<td><strong>Quiz 4</strong> Hematology</td>
<td>Chapters 19, 20</td>
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<tr>
<td>(6)</td>
<td>Test 1</td>
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<tr>
<td>(7)</td>
<td><strong>Quiz 5</strong> Cardiovascular system</td>
<td>Chapters 22, 23</td>
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<td>(8)</td>
<td><strong>Quiz 6</strong> Respiratory system</td>
<td>Chapters 25, 26</td>
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<td>(9)</td>
<td><strong>Quiz 7</strong> Endocrine system</td>
<td>Chapters 17, 18</td>
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<td>(10)</td>
<td><strong>Quiz 8</strong> Renal &amp; GI systems</td>
<td>Chapters 28, 29, 33, 34</td>
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<td>(11)</td>
<td>Test 2</td>
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<td>(12)</td>
<td><strong>Quiz 9</strong> Musculoskeletal system</td>
<td>Chapters 36, 37</td>
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<td>(13)</td>
<td>Musculoskeletal (continued)</td>
<td>Chapters 36, 37</td>
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<td>(14)</td>
<td><strong>Quiz 10</strong> Neurology</td>
<td>Chapters 12, 14, 15</td>
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<td>(15)</td>
<td>Neurology (continued)</td>
<td>Chapters 12, 14, 15</td>
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<td>(16)</td>
<td>Test 3 - (finals week)</td>
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First Examination

Write your name below and place all answers on a scantron sheet

Printing and signing your name below indicates your willingness to abide by the spirit and letter of the honor code. Failure to abide by the honor code will result in a “0” score on the examination.

Print Name:__________________________________________

Sign Name:__________________________________________
Place all answers on a scantron sheet

#1-3: Match the cellular organelle with the best description of the organelle.
1. lysosome A) site of oxidative ATP production
2. rough endoplasmic reticulum B) site of protein synthesis
3. mitochondria C) packages material for secretion
   D) bag of digestive enzymes

#4-7: Match the type of exudate with the best definition.
4. serous A) thick and clotted
5. fibrinous B) pus with many leukocytes
6. purulent C) filled with blood
7. hemorrhagic D) watery fluid with few leukocytes
   E) none of the above

#8-11: Match the term with the best definition.
8. regeneration A) hyperplasia of remaining healthy cells
9. resolution B) cleaning a lesion
10. repair C) replacement of lesion with fibrous scar
11. debridement D) restoration of original structure and function

#12-15: Macrophages release chemical mediators that stimulate: (True-A/False-B)
12. hyperplasia of fibroblasts
13. angiogenesis
14. hypertrophy of epithelial cells
15. collagen synthesis

#16-18: When a mast cell is activated the cell: (True-A/False-B)
16. phagocytizes damaged tissues
17. releases histamine, leukotrienes and prostaglandins
18. releases chemotactic factors

#19-24: Which of the following is true/false? (True-A/False-B)

19. Translation refers to the process in which a strand of DNA is translated into a sequence of amino acids. Translation occurs within the nucleus.

20. Neutrophils and macrophages are both phagocytes. While macrophages are the first to arrive the neutrophils are active for longer.

21. Opsonization of bacteria is one function of complement proteins.

22. The complement system of plasma proteins produces chemotaxic chemicals when activated.

23. The clotting system of plasma proteins produces chemotaxic chemicals when activated.

24. Bradykinin enhances the sensation of pain and causes an increase in vascular permeability.

25. Which of the following accurately describes the relative composition of a cell membrane?
   A) protein bilayer composed of hydrophobic molecules
   B) carbohydrate bilayer composed of amphipathic molecules
   C) lipid bilayer composed of amphipathic molecules
   D) lipid bilayer composed of hydrophilic molecules

26. Fibroblast proliferation:
   A) is stimulated by a chemical mediator from activated neutrophils
   B) begins during the maturation phase of healing
   C) results in a local increase in collagen deposition
   D) results in the formation of new blood vessels

27. Which is false regarding T cells?
   A) They originate in bone marrow
   B) They mature in thymus gland
   C) They secrete immunoglobulins

28. Which cell type normally acts as the “antigen presenting cell” for B & T cell activation?
   A) neutrophils
   B) macrophages
   C) mast cells
   D) eosinophils

29. Which is not a true sub-type of T cells?
   A) cytotoxic cell
   B) helper cell
30. Immunoglobulins can perform all of the following functions except:
   A) agglutinate
   B) precipitate
   C) neutralize
   D) opsonize
   E) phagocytize

31. The inflammatory system, humoral immunity and cell mediated immunity each provide a unique form of immunity that operates completely independent of the other 2 systems. (True/False)

32. Which type of immunoglobulin is most likely to be found in the bodily secretions?
   A) Ig-A
   B) Ig-D
   C) Ig-E
   D) Ig-G
   E) Ig-M

33. Which of type immunoglobulin is found in the highest concentration in the blood of adults who do not have an active infection?
   A) Ig-A
   B) Ig-D
   C) Ig-E
   D) Ig-G
   E) Ig-M

34. Which class of immunoglobulin is produced the most upon initial exposure to an antigen and the first immunoglobulin produced by neonates?
   A) Ig-A
   B) Ig-D
   C) Ig-E
   D) Ig-G
   E) Ig-M

35. Which is true regarding type I hypersensitivity reactions? It is known as
   A) immune complex disease and involves Ig-A
   B) cytotoxic and involves Ig-G
   C) anaphylaxis and involves Ig-E
   D) cell-mediated and does not involve antibodies

36. Which is true regarding type II hypersensitivity reactions? It is known as
   A) immune complex disease and involves Ig-G
   B) cytotoxic and involves Ig-G
37. The clinical hallmark of immunodeficiency is the tendency to develop unusual or recurrent infections. (True/False)

38. What specific type of T cell is impaired and deficient in patients with AIDS?
   A) helper T cells (T_H)
   B) cytotoxic T cells (T_C)
   C) regulatory T cells (T_R)
   D) plasma T cells (T_P)
   E) memory cells (T_M)

39. Although a sexual partner may not test positive for the HIV antibody, he or she may have the AIDS virus growing, be viremic and be infectious to others within 2 weeks of being infected. (True/False)