Part One: Catalog Description

Catalog description
1. Course Number: PED 4450
2. Short title: EX PRESC
3. Long Title: Exercise Prescription for General and Special Populations
4. Credit: 2-2-3
5. Term to be offered: On Demand
6. Initial term of course offering: Fall 2008
7. Course Description:
The application of exercise science principles to the design and implementation of exercise programs for general and special populations.
8. Registration restrictions:
a. There are no equivalent courses.
b. Prerequisites: Grade of “C” or better in BIO 2001G, PED 1500, PED 2440, PED 4340, PED 4440
c. Chair can waive the prerequisites.
d. There are no co-requisites to this course.
e. Repeat status: Course may not be repeated.
f. This course not restricted to any degree, college, major, or level.
g. There are no exclusions from this course.
9. This course is writing active. Assignments require students to write case studies and article reviews. Students will also be required to provide answers to some exam questions in an essay format.
10. The grading method is the standard letter (i.e., ABCDF).
11. This course will be offered in a traditional face-to-face lecture format with additional lab hours.

Part Two: Assurance of Student Learning

1. Student Learning Objectives and Evaluation
   Upon completion of this course students will be able to:
   - apply physiological principles to conditioning programs.
   - demonstrate an understanding of cardiac, pulmonary, and metabolic diseases and the effect on exercise testing and prescription.
   - demonstrate an understanding of the classifications of common medications for cardiac, pulmonary, and metabolic diseases and of the effects on exercise testing and prescription.
   - prescribe and implement fitness programs for the apparently healthy population as well as special populations.
• demonstrate competency of physical fitness assessments and administer assessments to clients.

a. This is not a general education course.
b. This is not a graduate level course.

2. Assessment of student achievement:

**Sample Assessment Table for Undergraduate Students**

<table>
<thead>
<tr>
<th></th>
<th>Exams (40%)</th>
<th>Quizzes (10%)</th>
<th>Assignments (15%)</th>
<th>Attendance/Participation (20%)</th>
<th>ATP Lab evaluations (15%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>apply physiological principles to conditioning programs</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demonstrate an understanding of cardiac, pulmonary, and metabolic diseases and the effect on exercise testing &amp; prescription</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>demonstrate an understanding the classifications of common medications for cardiac, pulmonary, and metabolic diseases and the effects on exercise testing and prescription</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>prescribe and implement fitness programs for the apparently healthy population as well as special populations</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>demonstrate competency of physical fitness assessments and administer assessments to clients</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
3. Evaluation

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm exam</td>
<td>20%</td>
</tr>
<tr>
<td>Final exam</td>
<td>20%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Assignments</td>
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<td>20%</td>
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<td>ATP Lab evaluations</td>
<td>15%</td>
</tr>
</tbody>
</table>

Grading Scale

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 – 100%</td>
<td>A</td>
</tr>
<tr>
<td>80-89%</td>
<td>B</td>
</tr>
<tr>
<td>70-79%</td>
<td>C</td>
</tr>
<tr>
<td>60-69%</td>
<td>D</td>
</tr>
<tr>
<td>&lt;60%</td>
<td>F</td>
</tr>
</tbody>
</table>

4. This is neither a technology-delivered course nor a nontraditional –delivered course.

5. This course is not for graduate credit.

6. This course will be writing active. Assignments require students to write case studies and article reviews. Students will also be required to provide answers to some exam questions in an essay format.

Part III: Outline of the Course

Outline of the Course:

1. Course will be delivered in a 50 minute lecture format, two times per week and two-40 minute labs for fifteen weeks.

**Week One**
- Introduction and Overview of Topic
- Review of Assessment Procedures and Calculations

**Week Two**
- Review of ACSM Risk Stratification
- Review of Metabolic Calculations

**Week Three**
- General Principles of Exercise Prescription
- Components of the Training Session

**Week Four**
- Cardio Respiratory Exercise Prescription for the Apparently Healthy Population
- Goal Setting
- Mode, Intensity, Frequency, Duration, Progression

**Week Five/Six**
- Cardiac Diseases and Medications
- Dyslipidemia, Myocardial Infarction, CABG, PTCA/stent, PAD, HTN
Week Seven  Phases of Cardiac Rehabilitation
Week Eight  Exercise Prescription Modifications for Cardiac Patients
Week Nine/Ten  Pulmonary Diseases and Medications
               Asthma, COPD, Immunology
Week Eleven  Exercise Prescription Modifications for Pulmonary Patients
Week Twelve  Metabolic Diseases and Medications
               Diabetes Mellitus, Metabolic Syndrome
Week Thirteen  Exercise Prescription Modifications for Patients with Metabolic Disease
Week Fourteen  Exercise Prescription for Special Populations
               Arthritis, Obesity, Osteoporosis, Pregnancy
Week Fifteen  Exercise Prescription for Children and Elderly People

Part IV: Purpose and Need
1. Exercise has been proven to improve overall health as well as reduce the risk of chronic diseases, such as cardiac, pulmonary, and metabolic diseases. This course applies physiological principles to the design and implementation of effective exercise programs for the apparently healthy population as well as special populations.
   a. This is not a general education course.
   b. This course will not be technology delivered.

2. Justification of the level of the course. Course content applies and expounds upon knowledge from lower level courses (e.g., PED 2440, PED 4340, PED 4440); therefore, it is a senior level course.

3. a. This course is not similar to any existing course.
   b. This course is being revised to add appropriate coursework to meet knowledge, skills, and abilities necessary to successfully fulfill accreditation guidelines.

4. Impact on program.
   a. The course will be required of all Physical Education majors within the Exercise Science concentration.
   b. This is not a graduate level.
Part Five: Implementation
1. Faculty members to whom course may be assigned: Stacey Ruholl and Dr. Jill Owen
2. Additional costs to students: none
3. Texts and supplementary materials to be used:
   Texts:
   ACSM’s Guidelines for Exercise Testing & Prescription, 7th ed; 2006
   ACSM’s Health Related Physical Fitness Assessment Manual; 2005
   NSCA’s Essentials of Personal Training; 2004

COMMUNITY COLLEGE TRANSFER
A community college course will not be judged equivalent to this course.

PART VII: APPROVALS
Date approved by the department or school 9/22/06
Date approved by the college curriculum committee 10/9/06
Date approved by the Honors Council (if this is an honors course) ________________
Date approved by CAA 10/26/06