## Course Approval Form

For approval of new courses and deletions or modifications to an existing course.

registrar.gmu.edu/facultystaff/curriculum

### Action Requested:

- [X] Create new course
- [ ] Delete existing course
- Modify existing course  
  - [ ] Title
  - [ ] Prereq/coreq
  - [ ] Other:

### Course Level:
- [ ] Undergraduate
- [X] Graduate

### College/School:
Health and Human Services

### Department:
Rehabilitation Science

### Subject Code:
RHBS

### Number:
750

### Effective Term:
- [X] Fall
- [ ] Spring
- [ ] Summer

### Year:
2014

### Title:
Current

- Banner (30 characters max including spaces) Physiol Exer Intervention

- New Physiology of Clinical Exercise Interventions

### Credits:
- [X] Fixed 3
- [ ] Variable

### Repeat Status:
- [X] Not Repeatable (NR)
- [ ] Repeatable within degree (RD)
- [ ] Repeatable within term (RT)

### Grade Mode:
- [X] Regular (A, B, C, etc.)
- [ ] Satisfactory/No Credit
- [ ] Special (A, B C, etc. +IP)

### Schedule Type Code(s):
- [X] Lecture (LEC)
- [ ] Lab (LAB)
- [ ] Recitation (RCT)
- [ ] Internship (INT)
- [ ] Independent Study (IND)
- [ ] Seminar (SEM)
- [ ] Studio (STU)

### Prerequisite(s):
RHBS 606 or permission of instructor

### Corequisite(s):

### Special Instructions:
(list restrictions for major, college, or degree; hard-coding; etc.)

### Instructional Mode:
- [X] 100% face-to-face
- [ ] Hybrid: ≤ 50% electronically delivered
- [ ] 100% electronically delivered

### Are there equivalent course(s)?
- [ ] Yes
- [X] No

### Catalog Copy for NEW Courses Only
(Consult University Catalog for models)

<table>
<thead>
<tr>
<th>Description (No more than 60 words, use verb phrases and present tense)</th>
<th>Notes (List additional information for the course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critiques current knowledge of exercise prescription in both healthy and clinical populations. Examines physiological effects of exercise interventions, with emphasis on chronic disease and disability.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicate number of contact hours:</th>
<th>Hours of Lecture or Seminar per week:</th>
<th>Hours of Lab or Studio:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

### When Offered:
- [X] Fall
- [ ] Summer
- [ ] Spring

### Approval Signatures

<table>
<thead>
<tr>
<th>Department Approval</th>
<th>Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>College/School Approval</th>
<th>Date</th>
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</table>

If this course includes subject matter currently dealt with by any other units, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal.

<table>
<thead>
<tr>
<th>Unit Name</th>
<th>Unit Approval Name</th>
<th>Unit Approver’s Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

### For Graduate Courses Only

<table>
<thead>
<tr>
<th>Graduate Council Member</th>
<th>Provost Office</th>
<th>Graduate Council Approval Date</th>
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</thead>
</table>

For Registrar Office’s Use Only: Banner ____________________________ Catalog ____________________________ revised 2/2/10
Course Number: RHBS 750 (3 credits)
Course Title: Physiology of Clinical Exercise Interventions
Faculty: Lisa Chin, PhD
E-mail: lchin2@gmu.edu; Meetings by appointment

Course Description:
Critiques current knowledge of exercise prescription in both healthy and clinical populations. Examines physiological effects of exercise interventions, with emphasis on chronic disease and disability.

Prerequisites:
RHBS 606 or equivalent Advance Exercise Physiology course with permission of the course professor

Course Objectives:
Upon completion of this course, students will be able to:
1. Explain the physiological adaptation and responses that occur with all types of exercise training in normal healthy adults, and those with chronic disease and disability
2. Synthesize current knowledge to develop training programs for clinical populations
3. Critically evaluate existing training programs for application in clinical research studies
4. Design and evaluate training programs geared towards clinical research studies based on existing scientific knowledge

Recommended Text:

Method of Evaluation:

Participation (10% of final grade): To encourage critical thinking and sharing of views, active discussions of the reading assignments are expected.

Written Assignment (20% of final grade): Students will critically review a chosen journal article and disseminate whether the exercise intervention was appropriate for the research question and clinical population.

Oral Presentation (20% of final grade): Students will present an appropriate exercise intervention, together with outcome measures, that addresses a specific research question in a given clinical population.

Final Examination (50% of final grade): The written exam may include multiple choice, short answers and short essays.

Proposed Course Schedule:
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and Review of Energy Systems</td>
<td>Chapter 5 and assigned readings</td>
</tr>
<tr>
<td>2</td>
<td>Fitness Testing and Interpretations</td>
<td>Chapter 4, 5, 6 and assigned readings</td>
</tr>
<tr>
<td>3, 4</td>
<td>Aerobic Training – Physiological adaptation, prescription and discussion of literature</td>
<td>Chapter 7 and assigned readings</td>
</tr>
<tr>
<td>5, 6</td>
<td>Aerobic Interval Training - Physiological adaptation, prescription and discussion of literature</td>
<td>Chapter 7 and assigned readings</td>
</tr>
<tr>
<td>7, 8</td>
<td>Anaerobic Interval Training (HIIT) – Physiological adaptation, prescription and discussion of literature</td>
<td>Chapter 7 and assigned readings</td>
</tr>
<tr>
<td>9, 10</td>
<td>Strength Training – Physiological adaptation, prescription and discussion of literature</td>
<td>Chapter 7 and assigned readings</td>
</tr>
<tr>
<td>11</td>
<td>Discussion of Combination Exercise Training</td>
<td>Assigned readings</td>
</tr>
<tr>
<td>12</td>
<td>Discussion of Other Types of Training – Including circuit, vibration, flexibility</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>13</td>
<td>Issues and Considerations with Implementing an Exercise intervention in Clinical Studies</td>
<td>Assigned readings</td>
</tr>
<tr>
<td>14</td>
<td>Student Presentations and Written Assignment Due</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Feedback of Presentations, Summary and Future Directions</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Final Examination</td>
<td></td>
</tr>
</tbody>
</table>

**Reading Assignments:**

**Week 1: Review of Energy Systems**


**Week 2: Fitness Testing and Interpretations**


**Week 3 and 4: Aerobic Training**


**Week 5 and 6: Aerobic Interval Training**


**Week 7 and 8: Anaerobic Interval Training**


**Week 9 and 10: Strength Training**


**Week 11: Combination of Exercise Training**


**Week 12: Other Types of Training**


**Week 13: Other Considerations**


**Academic Integrity:**

All RHBS students adhere to the University’s Honor Code. Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work. The principle of academic integrity is taken very seriously, and violations are treated as grave offenses. Please see the University Catalog for a full description of the code and the honor committee process.

**Students with Disabilities:**

If you are a student with a disability and you need academic accommodations, please contact the Office of Disability Services (ODS) (SUB I, Rm. 211; 993-2474; [www.gmu.edu/student/ods](http://www.gmu.edu/student/ods)) to determine the accommodations you might need. Please also speak with the instructor to discuss reasonable accommodations. All academic accommodations must be arranged through ODS.