AHAT 343.01: Rehabilitation of Athletic Injuries - Lab

Valerie Rich Moody
University of Montana - Missoula, valerie.moody@umontana.edu

Follow this and additional works at: http://scholarworks.umt.edu/syllabi

Recommended Citation
http://scholarworks.umt.edu/syllabi/776

This Syllabus is brought to you for free and open access by the Course Syllabi at ScholarWorks. It has been accepted for inclusion in Syllabi by an authorized administrator of ScholarWorks. For more information, please contact scholarworks@mail.lib.umt.edu.
REHABILITATION of ATHLETIC INJURIES
AHAT 342-343 (Upper Division Writing Course)

Instructor: Valerie Moody PhD, ATC, LAT, WEMT-B, CSCS  Semester: Spring 2014
Campus: Missoula  Office: McGill 238C
Office Phone: 406-243-2703  Cell Phone: 406-493-4651
Office Hours: E-mail: valerie.moody@umontana.edu
Class Meeting: Monday, Wednesday 10:10-12:00 McGill Hall 235

Course Prerequisites: Acceptance into the ATEP.

Textbooks and Readings:
1) Outside articles/chapters assigned by the instructor

Course Description:
Theories and application methods of comprehensive therapeutic treatment and rehabilitation programs for injuries commonly sustained by the physically active.

Course Objectives:

A. Objectives:
At the completion of the course students should be able to:
1) Identify components of a comprehensive plan of care for an injured athlete.
2) Describe the effects of therapeutic exercise on the inflammatory response, soft tissue and bony repair and return to athletic participation.
3) Discuss all aspects of rehabilitation in relation to goals and goal setting
4) Describe the importance of case studies
5) Improve confidence with case studies to determine what is the most appropriate sequence of rehabilitation
6) Integrate characteristics of the inflammation phase, pain cycle, and the physical principles and physiological responses of an injury and develop a progressive therapeutic program.
7) Prepare and instruct patients in home programs of therapeutic exercise for specific sport related injuries.
8) Develop injury care plans for injuries to the foot, ankle, knee, hip, spine, shoulder, elbow, and hand.
9) Incorporate therapeutic exercise equipment within the rehabilitation process effectively.
10) Revise goals and objectives and develop criteria for progression and return to competition based of level of function and patient outcomes
11) Demonstrate and describe appropriate measurements and functional measurements
12) Describe indications, contraindications, theory, and principles for the incorporation and application of various contemporary therapeutic rehabilitation techniques
13) Further objectives are listed at the beginning of each chapter and will be highlighted during class.
NATA Competencies and Laboratory Proficiencies:
The NATA Educational Competencies and Proficiencies were established by the National Athletic Trainers’ Association identifying the minimum knowledge and skills to be mastered within an entry-level athletic training education program. These competencies are specific to this course and are arranged based on the twelve content areas that are the basis behind the Athletic Training Major. Proficiencies will be completed via practical examination, projects, plans of care and clinical education.

Teaching Methodology
The primary method of instruction will be through demonstration/discussion. Any lecture/demonstrations/discussions will be supplemented by directed laboratory experiences and discovery learning as it pertains to the development of skills necessary to perform rehabilitation of athletic injuries. Students should be practicing the skills learned in this class and completing appropriate proficiencies while in the clinical class and at their clinical setting.

Evaluation of Student Outcomes:

Written Examinations
These examinations are intended to assess the student's awareness and understanding of the concepts covered by the course content. Items on these examinations will be derived from the text, discussions, course handouts. The content of each examination will usually mirror the content of the unit most recently studied. Examination methodology may include multiple choice, true-false, short answer, and essay questions. The final examination is cumulative.

Quizzes
Short take-home quizzes will be given each week reviewing applied anatomy and related concepts.

Rehab Project
Students will design and create a product that may be used for therapeutic exercise and can be integrated into a rehabilitation program for a facility that has a small budget. Students will be responsible for the cost of the materials to design their product. Students will then create an infomercial video to present their product, demonstrate the function of the equipment, and advertise their product to classmates. Classmates will be providing feedback and will impact presentation grade. A project handout will be provided with more details.

Rehabilitation Plans of Care
Students will prepare two Plans of Care describing the rehabilitation of an injured athlete. Students will be randomly assigned 2 cases each- one that is an operative injury and the other that is non-operative injury. A brief history and evaluation findings will be provided for each case to guide each student in developing their plans of care.

The following should be addressed for each plan of care:

1) The clinical findings and functional limitations that suggest the need for rehabilitative care in returning the athlete to competition,
2) A plan of care to address the needs of the injured athlete,
3) Short and long term clinical functional goals,
4) Estimated time required to achieve goals and the rationale for your selections,
5) Specific rehabilitation techniques you would use to achieve the goals and the rationale for your selections,
6) Contraindications/precautions you considered in devising your plan of care, and
7) Criteria for returning the athlete to practice and competition.

All papers must be typed and double-spaced. Reference to peer-reviewed medical literature related to pathology, medical management, surgical management and rehabilitation is required. References must be in AMA format (see Journal of Athletic Training). A minimum of 8 references is required.
Attendance

Mandatory - Prior arrangements should be made for excused absences to make-up work. For any unexcused absence, makeup work will not be accepted.

Course Evaluation:

10% - Quizzes
10% - Creative Rehab Project
15% - Midterm Exam (Written)
25% - Plan of Care - Operative Injury (grade includes outline, draft, revision of paper)
25% - Plan of Care - Non-Operative Injury (grade includes outline, draft, revision of paper)
15% - Final Exam (Written)
100%

*All quizzes and exams are cumulative unless otherwise noted

REHABILITATION OF ATHLETIC INJURIES LABORATORY AHAT 343

Evaluation of Student Outcomes:

Rehab Notebook
Each student will need to turn in a notebook with your final. The rehab notebook is meant to be a reference for you after the class. You will be graded on content, organization, neatness, and ability to access information. See notebook handout for more details.

Practical Examinations
Each student will complete two practical exams based upon his/her assigned plan of care. Students will turn in their assigned plans of care one week prior to their scheduled practical examination. These exams will allow students to demonstrate his/her proficiency in implementing and carrying out a rehabilitation program, in addition to selecting and instructing different therapeutic exercises. Any station or skill that receives a score below an 80% will require remediation to be scheduled with the instructor.

Laboratory Attire:
On days which class will be held in a laboratory setting students will be expected to wear attire appropriate for the participation in each functional activity. Shorts, t-shirt and tennis shoes would be appropriate unless otherwise stated in lecture. Inappropriate attire will result in an uncompleted laboratory experience and absence for that day. There are no exceptions.

Course Evaluation:

10% - Rehab Notebook
30% - Plan of Care - Operative Injury Practical Exam
30% - Plan of Care - Non-Operative Injury Practical Exam
30% - Lab Participation
100%

Grading Scale:
90-100% = A  80- 89% = B  70- 79% = C  60- 69% = D  <60% = F
The instructor reserves the right to award + or - grade where deemed appropriate
All course requirements must be completed with a grade of C or better to successfully complete this course.
Americans with Disabilities Act (ADA):

Students with disabilities may request reasonable modifications by contacting me. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). “Reasonable” means the University permits no fundamental alterations of academic standards or retroactive modifications. For more information, please consult http://www.umt.edu/disability.

Student Conduct Code: All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at http://www.umt.edu/SA/VPSA/index.cfm/page/1321
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading/Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 27</td>
<td>Introduction lecture and Lab; Designing a rehab program;</td>
<td>Reading Ch 1-4</td>
</tr>
<tr>
<td>January 29</td>
<td>Healing Process Review; Psychological Considerations; Give out POC assignments</td>
<td></td>
</tr>
<tr>
<td>February 3</td>
<td>Establishing core stability</td>
<td>Reading Ch 5-6; Quiz #1 Due</td>
</tr>
<tr>
<td>February 5</td>
<td>Regaining neuromuscular control</td>
<td></td>
</tr>
<tr>
<td>February 10</td>
<td>Regaining Postural Stability and Balance</td>
<td>Reading Ch 7-8; Quiz #2 Due</td>
</tr>
<tr>
<td>February 12</td>
<td>Restoring ROM/Flexibility</td>
<td></td>
</tr>
<tr>
<td>February 17</td>
<td>Presidents Day- No Class Meeting</td>
<td></td>
</tr>
<tr>
<td>February 19</td>
<td>Regaining Muscular Strength/ Maintaining aerobic capacity/endurance</td>
<td>Reading Ch 9-10; Quiz #3 Due</td>
</tr>
<tr>
<td>February 24</td>
<td>Plyometrics; OKC vs CKC</td>
<td>Reading Ch 11-13; Quiz #4 Due; Outline/Draft POC 1 due</td>
</tr>
<tr>
<td>February 26</td>
<td>Special Topics Presentations FYM’s: Power/Olympic Lifts, Functional Movement Screens, Cross Fit, Tabata training</td>
<td></td>
</tr>
<tr>
<td>March 3</td>
<td>Joint Mobilization and traction techniques; PNF techniques</td>
<td>Reading Ch 14; Quiz #5 Due</td>
</tr>
<tr>
<td>March 5</td>
<td>Midterm Written Exam</td>
<td></td>
</tr>
<tr>
<td>March 10</td>
<td>Functional Progression/Testing</td>
<td>Reading Ch 16;</td>
</tr>
<tr>
<td>March 12</td>
<td>Low leg, foot and ankle rehabilitation</td>
<td>Reading Ch 22-23; POC Draft #2 due Friday March 14th by 12:00</td>
</tr>
<tr>
<td>March 17</td>
<td>Low leg, foot and ankle rehabilitation</td>
<td>Reading Ch 22-23; Quiz #6 Due</td>
</tr>
<tr>
<td>March 19</td>
<td>Knee Rehabilitation</td>
<td>Reading Ch 21; Final Draft POC Due Friday March 21st by 12:00</td>
</tr>
<tr>
<td>March 24</td>
<td>Midterm Practical Exam</td>
<td></td>
</tr>
<tr>
<td>March 26</td>
<td>Midterm Practical Exam</td>
<td></td>
</tr>
<tr>
<td>March 31, April 2</td>
<td>Spring Break</td>
<td></td>
</tr>
<tr>
<td>April 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 7</td>
<td>Knee Rehabilitation</td>
<td>Reading Ch 21, Quiz #7 Due</td>
</tr>
<tr>
<td>April 9</td>
<td>Groin, hip, thigh rehab rehabilitation</td>
<td>Reading Ch 20, Quiz #8 Due; New POC given out for UE</td>
</tr>
<tr>
<td>April 14</td>
<td>Groin, hip, thigh rehab rehabilitation</td>
<td>Reading Ch 20</td>
</tr>
<tr>
<td>April 16</td>
<td>Group Project Due- POC 2 Draft #1 Due</td>
<td></td>
</tr>
<tr>
<td>April 21</td>
<td>Shoulder Rehabilitation</td>
<td>Reading Ch 17; Quiz #9 Due</td>
</tr>
<tr>
<td>April 23</td>
<td>Shoulder Rehabilitation</td>
<td></td>
</tr>
<tr>
<td>April 28</td>
<td>Elbow, wrist and hand rehabilitation</td>
<td>Reading Ch 18-19; Quiz #10 Due; POC 2 Draft #2 Due</td>
</tr>
<tr>
<td>April 30</td>
<td>Elbow wrist and hand rehabilitation</td>
<td></td>
</tr>
<tr>
<td>May 5</td>
<td>Spine rehabilitation</td>
<td>Reading Ch 24; Quiz #11 due</td>
</tr>
<tr>
<td>May 7</td>
<td>Spine Rehabilitation; Aquatic therapy</td>
<td>Reading Ch 15; Due Plan of Care #2</td>
</tr>
<tr>
<td>May 12-16</td>
<td>Final Practical Exam TBD</td>
<td>Final Written Exam TBD</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Instructed</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>EBP-5</td>
<td>Develop a relevant clinical question using a pre-defined question format ... (eg, PICO= Patients, Intervention, Comparison, Outcomes; PIO = Patients, Intervention, Outcomes)</td>
<td>✔️</td>
</tr>
<tr>
<td>EBP-6</td>
<td>Describe and contrast research and literature resources including ... databases and online critical appraisal libraries that can be used for conducting clinically-relevant searches.</td>
<td>✔️</td>
</tr>
<tr>
<td>EBP-7</td>
<td>Conduct a literature search using a clinical question relevant to ... athletic training practice using search techniques (eg, Boolean search, Medical Subject Headings) and resources appropriate for a specific clinical question.</td>
<td>✔️</td>
</tr>
<tr>
<td>EBP-14</td>
<td>Apply and interpret clinical outcomes to assess patient status, progress, ... and change using psychometrically sound outcome instruments.</td>
<td>✔️</td>
</tr>
<tr>
<td>PHP-19</td>
<td>Instruct clients/patients in the basic principles of ergodynamics and ... their relationship to the prevention of illness and injury.</td>
<td>✔️</td>
</tr>
<tr>
<td>PS-2</td>
<td>Explain the theoretical background of psychological and emotional ... responses to injury and forced inactivity (eg, cognitive appraisal model, stress response model).</td>
<td>✔️</td>
</tr>
<tr>
<td>PS-6</td>
<td>Explain the importance of educating patients, parents/guardians, and ... others regarding the condition in order to enhance the psychological and emotional well-being of the patient.</td>
<td>✔️</td>
</tr>
<tr>
<td>PS-7</td>
<td>Describe the psychological techniques (eg, goal setting, imagery, ... positive self-talk, relaxation/anxiety reduction) that the athletic trainer can use to motivate the patient during injury rehabilitation and return to activity processes.</td>
<td>✔️</td>
</tr>
<tr>
<td>PS-8</td>
<td>Describe psychological interventions (eg, goal setting, motivational ... techniques) that are used to facilitate a patient’s physical, psychological, and return to activity needs.</td>
<td>✔️</td>
</tr>
<tr>
<td>PS-9</td>
<td>Describe the psychosocial factors that affect persistent pain sensation ... and perception (eg, emotional state, locus of control, psychodynamic issues, sociocultural factors, personal values and beliefs) and identify multidisciplinary approaches for assisting patients with persistent pain.</td>
<td>✔️</td>
</tr>
<tr>
<td>PS-10</td>
<td>Explain the impact of sociocultural issues that influence the nature and ... quality of healthcare received (eg, cultural competence, access to appropriate healthcare providers, uninsured/underinsured patients, insurance) and formulate and implement strategies to maximize client/patient outcomes.</td>
<td>✔️</td>
</tr>
<tr>
<td>PS-12</td>
<td>Identify and refer clients/patients in need of mental healthcare.</td>
<td>✔️</td>
</tr>
<tr>
<td>TI-1</td>
<td>Describe and differentiate the physiological and pathophysiological ... responses to inflammatory and non-inflammatory conditions and the influence of these responses on the design, implementation, and progression of a therapeutic intervention.</td>
<td>✔️</td>
</tr>
<tr>
<td>TI-2</td>
<td>Compare and contrast contemporary theories of pain perception and pain modulation.</td>
<td></td>
</tr>
<tr>
<td>TI-3</td>
<td>Differentiate between palliative and primary pain-control interventions.</td>
<td></td>
</tr>
<tr>
<td>TI-4</td>
<td>Analyze the impact of immobilization, inactivity, and mobilization on the body systems (e.g., cardiovascular, pulmonary, musculoskeletal) and injury response.</td>
<td></td>
</tr>
<tr>
<td>TI-5</td>
<td>Compare and contrast the variations in the physiological response to injury and healing across the lifespan.</td>
<td></td>
</tr>
<tr>
<td>TI-6</td>
<td>Describe common surgical techniques, including interpretation of operative reports, and any resulting precautions, contraindications, and comorbidities that impact the selection and progression of a therapeutic intervention program.</td>
<td></td>
</tr>
<tr>
<td>TI-7</td>
<td>Identify patient- and clinician-oriented outcomes measures commonly used to recommend activity level, make return to play decisions, and maximize patient outcomes and progress in the treatment plan.</td>
<td></td>
</tr>
<tr>
<td>TI-8</td>
<td>Explain the theory and principles relating to expected physiological response(s) during and following therapeutic interventions.</td>
<td></td>
</tr>
<tr>
<td>TI-10</td>
<td>Integrate self-treatment into the intervention when appropriate, including instructing the patient regarding self-treatment plans.</td>
<td></td>
</tr>
<tr>
<td>TI-13</td>
<td>Describe the relationship between the application of therapeutic modalities and the incorporation of active and passive exercise and/or manual therapies, including, therapeutic massage, myofascial techniques, and muscle energy techniques.</td>
<td></td>
</tr>
<tr>
<td>TI-14</td>
<td>Describe the use of joint mobilization in pain reduction and restoration of joint mobility.</td>
<td></td>
</tr>
<tr>
<td>TI-18</td>
<td>Explain the relationship between posture, biomechanics, and ergodynamics and the need to address these components in a therapeutic intervention.</td>
<td></td>
</tr>
<tr>
<td>TI-19</td>
<td>Identify manufacturer, institutional, state, and/or federal standards that influence approval, operation, inspection, maintenance and safe application of therapeutic modalities and rehabilitation equipment.</td>
<td></td>
</tr>
</tbody>
</table>

**HHP 373 - Rehabilitation of Athletic Injuries Lab**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Instructed</th>
<th>Evaluated</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP-7</td>
<td>Select and integrate appropriate psychosocial techniques into a patient’s treatment or rehabilitation program to enhance rehabilitation adherence, return to play, and overall outcomes. This includes, but is not limited to, verbal motivation, goal setting, imagery, pain management, self-talk, and/or relaxation.</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>PD-9</td>
<td>Specify when referral of a client/patient to another healthcare provider is warranted and formulate and implement strategies to facilitate that referral.</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Code</td>
<td>Task Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHP-27</td>
<td>Compare and contrast the various types of flexibility, strength training, ... and cardiovascular conditioning programs to include expected outcomes, safety precautions, hazards, and contraindications.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PS-18</td>
<td>Provide appropriate education regarding the condition and plan of care to ... the patient and appropriately discussion with others as needed and as appropriate to protect patient privacy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-11</td>
<td>Design therapeutic interventions to meet specified treatment goals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-11a</td>
<td>Assess the patient to identify indications, contraindications, and ... precautions applicable to the intended intervention.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-11b</td>
<td>Position and prepare the patient for various therapeutic interventions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-11c</td>
<td>Describe the expected effects and potential adverse reactions to the patient.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-11d</td>
<td>Instruct the patient how to correctly perform rehabilitative exercises.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-11e</td>
<td>Apply the intervention, using parameters appropriate to the intended ... outcome.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-11f</td>
<td>Reassess the patient to determine the immediate impact of the ... intervention.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-12</td>
<td>Use the results of on-going clinical examinations to determine when a ... therapeutic intervention should be progressed, regressed or discontinued.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-15</td>
<td>Perform joint mobilization techniques as indicated by examination ... findings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI-20</td>
<td>Inspect therapeutic equipment and the treatment environment for potential ... safety hazards.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>