I. Course Description

KINE 3320 Therapeutic Modalities provides the student with knowledge of current theory and application of therapeutic modalities used in the treatment of musculoskeletal injuries. Prerequisite: KINE 3318 – Prevention & Care of Athletic Injuries.

II. Rationale

This course prepares students seeking to become certified athletic trainers or physical therapists with the information required to properly select and apply therapeutic modalities for the treatment of musculoskeletal injuries. This course is required for 1) students accepted into the Athletic Training Program (AT Program) at TAMUCC and must be taken alongside with KINE 3291 and 2) students completing the Pre-Physical Therapy/Occupational Therapy specializations.

III. State Adopted Proficiencies for Teachers and/or Administrators/Counselors

1. LEARNER-CENTERED KNOWLEDGE: The teacher possesses and draws on a rich knowledge base of content, pedagogy, and technology to provide relevant and meaningful learning experiences for all students.
2. LEARNER-CENTERED INSTRUCTION: To create a learner-centered community, the teacher collaboratively identifies needs; and plans, implements, and assesses instruction using technology and other resources.
3. EQUITY IN EXCELLENCE FOR ALL LEARNERS: The teacher responds appropriately to diverse groups of learners.
4. LEARNER-CENTERED COMMUNICATION: While acting as an advocate for all students and the school, the teacher demonstrates effective professional and interpersonal communication skills.
5. LEARNER-CENTERED PROFESSIONAL DEVELOPMENT: The teacher, as a reflective practitioner dedicated to all students’ success, demonstrates a commitment to learn, to improve the profession, and to maintain ethics and personal integrity.

IV. TExES Competencies & CAATE Competencies/Proficiencies

a. TExES COMPETENCIES
   N/A

b. NATIONAL COMPETENCIES & PROFICIENCIES FOR ATHLETIC TRAINING (CAATE 5th Ed.)
KINE 3320 Therapeutic Modalities

Texas A&M University-Corpus Christi - Athletic Training Program
BOC Role Delineation Study/Practice Analysis, Sixth Edition (Athletic Training Education Competency)

**Not all Athletic Training Competencies are taught in this course as there are often multiple competencies for each role delineation study area/item. Role Delineation items listed are at least partially covered by this course.**

**DOMAIN I: Injury/illness prevention and wellness protection**

B. Interpret individual and group pre-participation and other relevant screening information (e.g., verbal, observed, written) in accordance with accepted and applicable guidelines to minimize the risk of injury and illness.

Skill in:

7. Collecting appropriate pre-participation screening information (AC 5)

D. Maintain physical activity, clinical treatment and rehabilitation areas by complying with regulatory standards to minimize the risk of injury and illness.

Knowledge of:

1. Laws, regulations and policies (e.g., institutional, state and national) regarding safety and sanitation (PHP 7, PHP 20, TI 19, PD 3, PD 4, PD 5)

2. Manufacturer’s guidelines for maintaining equipment and devices (PHP 22, TI 19)

Skill in:

5. Maintaining a safe and sanitary environment in compliance with established standards (e.g., OSHA, universal precautions, local health department and institutional policy) (PHP 22, TI 19, TI 20, PD 4, PD 5, PD 7)

7. Recognizing malfunction or disrepair of therapeutic modalities, rehabilitation equipment or furnishings in clinical and treatment areas (TI 20)

G. Promote healthy lifestyle behaviors using appropriate education and communication strategies to enhance wellness and minimize the risk of injury and illness.

Knowledge of:

2. Accepted nutritional practices (PHP 32, PHP 33, PHP 35, PHP 38, PHP 39, PHP 45)

Skill in:

11. Educating appropriate individuals on nutritional disorders, maladaptation, substance abuse and overtraining (PHP 32, PS 18)

**DOMAIN II: Clinical Evaluation and Diagnosis**

A. Obtain an individual’s history through observation, interview and/or review of relevant records to assess injury, illness or health-related condition.

Knowledge of:

8. Signs and symptoms of injuries, illnesses and health-related conditions (CE 13, CE 20, CE 21, PS 12)
**Skill in:**

11. Obtaining and recording information related to injuries, illnesses and health-related conditions (CE 13, CE 20, CE 21)

15. Identifying the extent and severity of injuries, illnesses and health-related conditions (CE 13)

19. Relating signs and symptoms to specific injuries, illnesses and health-related conditions (CE 13, CE 21)

**D. Formulate a clinical diagnosis by interpreting the signs, symptoms and predisposing factors of the injury, illness or health-related condition to determine the appropriate course of action.**

**Knowledge of:**

1. Basic pharmacology associated with diagnosis and courses of action (TI 24, TI 25, TI 26, TI 27, TI 28, TI 29, TI 30, TI 31)

**E. Educate the appropriate individual(s) about the clinical evaluation by communicating information about the injury, illness or health-related condition to encourage compliance with recommended care.**

**Knowledge of:**

3. Patient confidentiality rules and regulations (PS 18, PD 3, PD 4, PD 5)

4. Potential health-related complications and expected outcomes (CE 8)

---

**DOMAIN III: Immediate and Emergency Care**

**A. Coordinate care of individual(s) through appropriate communication (e.g., verbal, written, demonstrative) of assessment findings to pertinent individual(s).**

**Knowledge of:**

1. Components of the emergency action plan(s) (AC 2, AC 3, AC 4, AC 8, HA 21)

**B. Apply appropriate immediate and emergency care procedures to prevent the exacerbation of health-related conditions to reduce the risk factors for morbidity and mortality.**

**Knowledge of:**

1. Appropriate management techniques for life-threatening health-related conditions (e.g., respiratory, cardiac and central nervous) (AC 5, AC 6, AC 7, AC 19, AC 20, AC 22, AC 27, AC 28, AC 30, AC 33, AC 34, AC 38)

**C. Implement appropriate referral strategies, while stabilizing and/or preventing exacerbation of the condition(s), to facilitate the timely transfer of care for health-related conditions beyond the scope of practice of the Athletic Trainer.**

**Knowledge of:**

1. Common management strategies for life- and non-life-threatening health-related conditions (AC 36, AC 37, AC 38, AC 39)

5. Roles of medical and allied health care providers (AC 2)

**Skill in:**
6. Communicating with appropriate professionals regarding referral and treatment for individuals (PS 18)

D. Demonstrate how to implement and direct immediate care strategies (e.g., first aid, emergency action plan) using established communication and administrative practices to provide effective care.

*Skill in:*

8. Instruction of emergency care techniques (AC 43)

**DOMAIN IV: Treatment and Rehabilitation**

A. Administer therapeutic and conditioning exercise(s) using appropriate techniques and procedures to aid recovery and restoration of function.

*Knowledge of:*

1. Adaptation of the cardiovascular and muscular systems related to treatment, rehabilitation and reconditioning (TI 4, TI 8)

2. Age-specific considerations related to treatment, rehabilitation and reconditioning (TI 5, TI 8)

3. Available equipment and tools related to treatment, rehabilitation and reconditioning (CE 6, TI 10)

6. Inflammatory process related to treatment, rehabilitation and reconditioning (TI 1)

7. Neurology related to treatment, rehabilitation and reconditioning (TI 1, TI 4, TI 5)

8. Pharmacology related to treatment, rehabilitation and reconditioning (TI 29, TI 30)

9. Principles of adaptation and overload of tissues (TI 4, TI 5, TI 8)

10. Principles of adaptation of systems (TI 4, TI 5, TI 8)

11. Principles of strength and conditioning exercises (e.g., plyometrics, core stabilization, speed, agility and power) (TI 8)

12. Principles of therapeutic exercise (e.g., isometric, isotonic, isokinetic, work, power and endurance) (TI 8, TI 13, TI 17)

13. Proprioception and kinesthesis related to treatment, rehabilitation and reconditioning (TI 8, TI 17, TI 24)

15. Structure, growth, development and regeneration of tissue (TI 1, TI 4, TI 5)

*Skill in:*
17. Applying exercise prescription in the development and implementation of treatment, rehabilitation and reconditioning (e.g., aquatics, isokinetics and closed-chain) (TI 11, TI 17)

18. Evaluating criteria for return to activity (CE 19, CE 20, CE 22, TI 11, PS 3)

B. Administer therapeutic modalities (e.g., electromagnetic, manual, mechanical) using appropriate techniques and procedures based on the individual’s phase of recovery to restore functioning.

Knowledge of:
1. Available therapeutic modalities related to treatment, rehabilitation and reconditioning (TI 10, TI 14)
2. Indications and contraindications for therapeutic modalities (TI 11)
3. Inflammatory process related to therapeutic modalities (TI 1)
4. Physiological response to therapeutic modalities (TI 3, TI 5, TI 8)
5. Principles of mechanical, electromagnetic and acoustical energy (TI 8, TI 9)
6. Principles of therapeutic exercise (e.g., isometric, isotonic, isokinetic, work, power and endurance) (TI 8)
7. Structure, growth, development and regeneration of tissue (TI 8)
8. Theories of pain (TI 2, TI 3)

Skill in:
10. Applying manual therapy techniques (TI 13, TI 14, TI 15)
11. Applying thermal, electrical, mechanical and acoustical modalities (TI 9)
12. Communicating with appropriate professionals regarding referral and treatment for individuals (CE 22, TI 11)
13. Recognizing the status of systemic illnesses (TI 11, CIP 5)

D. Administer treatment for injury, illness and/or health-related conditions using appropriate methods to facilitate injury protection, recovery and/or optimal functioning for individual(s).

Knowledge of:
4. Pharmacology related to the treatment of injuries, illnesses and health-related conditions (TI 25, TI 26, TI 27, TI 28, TI 29, TI 30, PHP 48)
5. Psychological reaction to injuries, illnesses and health-related conditions (TI 8, PS 1, PS 2)
6. Structure, growth, development and regeneration of tissue (TI 8)
**Skill in:**

8. Applying thermal, electrical, mechanical and acoustical modalities (TI 9)

9. Communicating with appropriate professionals regarding referral and treatment for individuals (CE 22, TI 10, TI 31, PS 6)

**E. Reassess the status of injuries, illnesses and/or health-related conditions using appropriate techniques and documentation strategies to determine appropriate treatment, rehabilitation and/or reconditioning and to evaluate readiness to return to a desired level of activity.**

**Knowledge of:**

1. Adaptation of the cardiovascular and muscular systems related to rehabilitation, recovery and performance (TI 5, TI 18)

2. Age-specific considerations related to rehabilitation, recovery and performance (CE 7, TI 5)

5. Indications and contraindications related to rehabilitation, recovery and performance (TI 5, TI 8)

6. Inflammatory process related to rehabilitation, recovery and performance (TI 1)

7. Neurology related to rehabilitation, recovery and performance (TI 5)

8. Principles of adaptation and overload of tissues (TI 4)

9. Principles of strength and conditioning exercises (e.g., plyometrics, core stabilization, speed, agility and power) (TI 8)

10. Principles of therapeutic exercise (e.g., isometric, isotonic, isokinetic, work, power and endurance) (TI 8)

11. Proprioception and kinesthesis related to rehabilitation, recovery and performance (TI 8)

13. Structure, growth, development and regeneration of tissue (TI 5, TI 8)

**Skill in:**

15. Evaluating criteria for return to activity (CE 9, CE 19, TI 7)

16. Interpreting assessment information necessary to modify, continue or discontinue treatment plans (CE 14, CE 15, TI 4, TI 7, TI 10, TI 12)

**F. Provide guidance and/or referral to specialist for individual(s) and groups through appropriate communication strategies (e.g., oral and education materials) to restore an individual(s) optimal functioning.**

**Skill in:**

10. Identifying appropriate individuals to educate (TI 10, PS 18)
E. Demonstrate an understanding of statutory and regulatory provisions and professional standards of the practice of athletic training in order to provide for the safety and welfare of individual(s) and groups.

Knowledge of:

1. Appropriate equipment and facility inspection procedures and documentation (PHP 18, TI 19, TI 20)

3. Federal and state statutes, regulations and adjudication which apply to the practice and/or organization and administration of athletic training (e.g., OSHA, DEA, Title IX, Civil Rights Act, HIPAA, Buckley Amendment, labor practices, patient confidentiality, insurance, record keeping) (TI 21, PS 18, PD 4, PD 6)

5. Manufacturer’s operational guidelines (PHP 20, TI 19)

F. Develop a support/referral process for interventions to address unhealthy lifestyle behaviors.

Knowledge of:

4. Confidentiality policies (PS 18)
V. Course Objectives/Learning Outcomes

This course is designed to enable students to:

- Demonstrate how to apply therapeutic modalities in a proper and safe manner.
- Explain the theory behind electrical stimulation, thermal and non-thermal modalities, manual techniques, and acoustical energy and their effects on tissues in the body.
- Apply each type of therapeutic modality in a supervised setting.

<table>
<thead>
<tr>
<th>Class</th>
<th>Course Objectives/Learning Outcomes</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINE 3320 Therapeutic Modalities</td>
<td>1. Describe the physiological and pathological processes of trauma, wound healing and tissue repair and their implications on the selection and application of therapeutic modalities used in a treatment and/or rehabilitation program.</td>
<td>Exams, Final exam, Quizzes - multiple choices, short answers, essay questions, true and false Final Project - 4-week treatment plan for an condition assigned</td>
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<td>2. Become familiar with numerous therapeutic modalities that are used today in Athletic Training and Physical Therapy clinics.</td>
<td>Exams, Final exam, Quizzes - multiple choices, short answers, essay questions, true and false 4 Labs Final Project - 4-week treatment plan for an condition assigned</td>
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<td>3. Be able to administer therapeutic modalities to a patient while effectively communicating with him/her about indications, contraindications, precautions, normal/abnormal sensations etc.</td>
<td>4 Labs</td>
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<td></td>
<td>4. Different pain control theories and the neuroscience of pain modulation.</td>
<td>Exam #1, Final exam, Quiz</td>
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<td>5. Identify indications for application of modalities and contraindications for the non-use of modalities.</td>
<td>Exam #2-4, Final exam, Quiz, Labs</td>
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<td>6. Develop a systematic approach to problem solving, enabling the student to treat the individual patient.</td>
<td>Exams, Quizzes, Paper, Final Project</td>
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<td>7. Learn the importance of proper documentation of treatments.</td>
<td>Exam #1, Quiz</td>
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<td>8. Understand how therapeutic modalities are beneficial when combined with therapeutic exercise.</td>
<td>Exams, Final exam, Quizzes - multiple choices, short answers, essay questions, true and false Final Project - 4-week treatment plan for an condition assigned</td>
</tr>
</tbody>
</table>

VI. Course Topics

The major topics to be considered are:

1. How inflammation, pain, and tissue healing affect which therapeutic modality is appropriate.
3. How, why, and when to select certain modalities based off of what therapeutic effect they possess combined with the state of tissue healing.
4. Describe all indications and contraindications for all of the therapeutic modalities taught in this course.
5. Re-evaluation and how to progress and adjust therapeutic modality usage.
6. The role that current research plays in selecting and setting up treatment parameters to provide the most effective and beneficial treatment for your patient (Evidence-Based Medicine).
VII. Instructional Methods and Activities

Methods and activities for instruction include:
A. Traditional Experiences: 90% (lecture/discussion; demonstration; guest speaker)
B. Clinical Experiences 10% (laboratory demonstrations in the Athletic Training Center – IH 179)
C. Field Experiences 0%

VIII. Evaluation and Grade Assignment

The methods of evaluation and the criteria for grade assignment are:

A. Methods and Percentage of Final Course Grade Each Assessment Constitutes

1. Traditional Assessment

Written Examinations (4) = 100 Points/each
Comprehensive Final Examination = 150 Points
Quizzes (~10) = 10-15 Points/each
Labs (4) = 25 Points/each
Projects/Papers (2) = 50 Points/each
Class Participation = 25 Points

Total = ~900 Points

2. Performance Assessment

There will be a performance assessment (25 Points) of your class participation. To receive all 25 points, you must be present and participate in every class discussion and laboratory activity. Your 3rd unexcused absence and every absence thereafter will result in the reduction of 5 points towards the 25 point total.

B. Grading Scale

90.00-100% = A
80.00-89.99% = B
70.00-79.99% = C
60.00-69.99% = D
< 60.00 % = F

IX. Course Schedule and Policies

A. A tentative course schedule (see appendix)

B. Class Policies

Dropping a Class
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your
being dropped from the class. (Include date for semester) is the last day to drop a class with an automatic grade of “W” this term.

**Academic Honesty:**
As per the university catalog, “university students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, forgery, or plagiarism. (Plagiarism is the presentation of the work of another as one’s own).

Penalties that may be applied to individual cases of academic dishonesty include one or more of the following:
1. Written reprimand.
2. Requirement to re-do work in question.
3. Requirement to submit additional work.
4. Lowering of grade on work in question;
5. Assigning grade of ‘F’ to work in question;
6. Assigning grade of ‘F’ for course;
7. Recommendation for more severe punishment.

**Written Exams & Final**
Four written exams will be given at the conclusion of their respective section. Material covered on the exam will mainly be from class lectures & notes as well as the Starkey textbook. One cumulative Final exam will be given during Finals week in December. The final exam will include test questions from the previous exams as well as a portion of questions over new information covered since the 4th exam. **No make-up exams will be given except under extreme circumstances.**

**When taking an exam or quiz** – you may not use your cell phone or any other electronic device until you have left the room. All bags, etc. must be kept under your desk. Not adhering to these rules will be considered an attempt to cheat.

**The final exam is scheduled for December.** Do not be late! Once the exam has begun, nobody will be allowed to enter the room. If you are late, you must immediately contact the instructor after I have completed giving the final exam. If your tardiness is excused, you may be allowed to take the exam at a later time. The exam will be cumulative, covering material from all prior exams as well as the material covered since the last exam.

**Pre-class Quizzes**
At the beginning of every class period there will be a pre-class quiz worth 5 points total. Questions may be based off of either information learned in the previous class sessions, or information that can be found in the required reading for the current class session. If you do not read the associated reading in a timely manner it will be very difficult to earn all points possible for the quizzes. These quizzes will only be available for the first five minutes of each class period. If you enter class more than five minutes after the class period begins you will not be eligible to take the pre-class quiz. Pre-class quizzes may only be made up in the event of an excused absence.
**Labs**
Tentatively, four laboratory opportunities will be held in IH 179 for students to experience these modalities. If scheduled, there will be 25 points given for attendance and participation.

**Assignments**
Examples are: handouts, critiques of journal articles, outlines of chapters, or in-class activities.

**Paper/Project**
- **Paper:** Due on THE MONDAY BEFORE THANKSGIVING. As we go through the semester we will be discussing research and therapeutic effects of modalities quite often. I will teach you how to find journal articles, what to look for when you read them, and how to discern what the findings of the study are. For the assignment you will take a similar approach as I have modeled in class and find two peer-reviewed journal articles over the same topic that is closely related to the content of this class and write a 2-page discussion on how what they discover affects your use/application of that certain modality. **FORMATTING:** 12 point Times New Roman font, double-spaced, your name & date on the top right corner. You should also include citations for both of the articles you are discussing in APA format. More specific directions will be given later.
- **Project:** Due on the last day of class. You will put together a 4-week treatment plan for a scenario that I will give you. Focus your treatment from the time that you start treating the patient through the next four weeks. You should focus your treatment and writing on explaining what stage of healing the patient is in, when and why you would use a treatment, how long you would use it for, and when you change up the treatment, what you are changing to. More specific directions will be given later.

**Attendance, Excused Absences, and Make Up Work/Tests**
Attendance in class is not calculated into your grade, but it is necessary for your education, however strictly consuming oxygen does not qualify as attendance, be prepared to take a pre-lab quiz and answer questions when called upon. Tests and homework will only be permitted to be made up in the event of an excused absence. In order for an absence to be classified as excused one of several criteria must be met;
   1. For homework- your instructor must be informed by email prior to the beginning of the class period.
   2. For a test- your instructor must be informed by email at least 24 hours prior to the class period in which the test will be taken. In the case of a missed test due to an excused absence it is the responsibility of the student to make an appointment with the professor to make up the missed test, within one week of the missed exam.
   3. Note from a physician stating that you missed class for a medical issue including date and time of class missed.

**X. Textbook(s)**
*The textbook(s) adopted for this course is/are:*
Starkey, C. Therapeutic Modalities. 4th Ed. F.A. Davis Company. 2012

*Recommended but not required supplementary textbook(s) is/are:*
XI. Bibliography

The knowledge bases that support course content and procedures include:

6. Peer-reviewed literature related to therapeutic modalities.

XII. Grade Appeals

As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

XIII. Disabilities Accommodations*

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in CCH 117. If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

*Required by SACS

XIV. Statement of Civility

Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of gender, ethnic/racial origin, religious background, age, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated. http://falcon.tamucc.edu/~students/JAffairs/ja_hndbk_academic_info.htm
XV. Statement of Academic Continuity

In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.
# A. Tenative Course Schedule for KINE 3320 – Therapeutic Modalities (Summer 2015)

<table>
<thead>
<tr>
<th>Week</th>
<th>Day</th>
<th>Date</th>
<th>Topic</th>
<th>Associated Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tues</td>
<td>7/5</td>
<td>Introduction to Therapeutic Modalities, Intervention Strategies; Administer Ch. 3 &amp; 4</td>
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<tr>
<td></td>
<td>Wed</td>
<td>7/6</td>
<td>Tissue Response to Injury</td>
<td>Ch. 1</td>
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<td></td>
<td>Thurs</td>
<td>7/7</td>
<td>Physiology and Psychology of Pain, Review Exam I</td>
<td>Ch. 2; Ch. 1-4</td>
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<tr>
<td>7/7-7/8</td>
<td></td>
<td></td>
<td>Exam I - Online (Blackboard)</td>
<td>Ch. 1-4</td>
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<tr>
<td>2</td>
<td>Mon</td>
<td>7/11</td>
<td>Thermal Modalities</td>
<td>Ch. 5</td>
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<tr>
<td></td>
<td>Tues</td>
<td>7/12</td>
<td>Application of Thermal Modalities</td>
<td>Ch. 6,14</td>
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<tr>
<td></td>
<td>Wed</td>
<td>7/13</td>
<td>Lab Day - Thermal Modalities, Exam Review II</td>
<td>Ch. 5,6,14</td>
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<tr>
<td></td>
<td>Thurs</td>
<td>7/14</td>
<td>Principles of Electrical Stimulation; Electrical Stimulation</td>
<td>Ch. 11 &amp; 12</td>
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<tr>
<td>7/14-7/1</td>
<td></td>
<td></td>
<td>Exam II - Online (Blackboard)</td>
<td>Ch. 5,6,14</td>
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<tr>
<td>3</td>
<td>Mon</td>
<td>7/18</td>
<td>Application of Electrical Stimulation</td>
<td>Ch. 13</td>
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<tr>
<td></td>
<td>Tues</td>
<td>7/19</td>
<td>Electromyographic Biofeedback</td>
<td>Ch. 18</td>
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<tr>
<td></td>
<td>Wed</td>
<td>7/20</td>
<td>Lab Day - Electrical Modalities; Exam Review III</td>
<td>Ch. 11-13; Ch. 11-13,18</td>
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<td></td>
<td>Thurs</td>
<td>7/21</td>
<td>Therapeutic Ultrasound</td>
<td>Ch. 7</td>
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<td>7/21-8/2</td>
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<td>Exam III - Online (Blackboard)</td>
<td>Ch. 11-13, 18</td>
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<tr>
<td>4</td>
<td>Mon</td>
<td>7/25</td>
<td>Application of Therapeutic Ultrasound</td>
<td>Ch. 8</td>
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<tr>
<td></td>
<td>Tues</td>
<td>7/26</td>
<td>Shortwave Diathermy</td>
<td>Ch. 9</td>
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<td></td>
<td>Wed</td>
<td>7/27</td>
<td>Low-Level Laser Therapy</td>
<td>Ch. 10</td>
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<tr>
<td></td>
<td>Thurs</td>
<td>7/28</td>
<td>Lab Day - Thermal &amp; Light Modalities; Exam Review IV</td>
<td>Ch. 7-10, 19</td>
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<tr>
<td>7/28-7/2</td>
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<td></td>
<td>Exam IV - Online (Blackboard)</td>
<td>Ch. 7-10, 19</td>
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<tr>
<td>5</td>
<td>Mon</td>
<td>8/1</td>
<td>Therapeutic Massage</td>
<td>Ch. 17</td>
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<tr>
<td></td>
<td>Tues</td>
<td>8/2</td>
<td>Muscle Energy Techniques, CPM &amp; Spinal Traction</td>
<td>Ch. 15, 16</td>
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<tr>
<td></td>
<td>Wed</td>
<td>8/3</td>
<td>Joint Mobilization</td>
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<tr>
<td></td>
<td>Thurs</td>
<td>8/4</td>
<td>Lab Day - Manual Techniques</td>
<td>Ch. 15-17</td>
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<tr>
<td>8/4-8/5</td>
<td></td>
<td></td>
<td>FINAL EXAM</td>
<td>COMPREHENSIVE</td>
</tr>
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