

## **Clinical Rotation in Athletic Training**

### **KIN 427 (a)**

Fall 2007

Tuesdays 7-8:50

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### **Course Description**

Entry knowledge and skills used to manage and rehabilitate orthopedic injuries at various clinical settings including colleges, high schools, and rehabilitation clinics.

### **Course Objectives**

KIN 427 provides a student the opportunity to practice and learn athletic training skills by working closely with an Approved Clinical Instructor (ACI) during clinical assignments. It is also an opportunity for you to demonstrate mastery level proficiency with your modality knowledge and skills. The skills you learned, practiced and tested in your KIN 423 class will be evaluated this semester. You should be comfortable with these skills and be able to utilize them with ease.

You will be provided with skill set forms that need to be completed before the last week of class. It is your responsibility to demonstrate proficiency in all skills during your clinical rotations. A student must demonstrate proficiency at 80% to pass a skill. You must demonstrate your abilities to an Approved Clinical Instructor (ACI). All MSU Athletic Training staff members and most second year graduate assistants act as ACI's. Please confirm with the individual you are working with that they are an ACI prior to completing the skill. Please be prepared when demonstrating your skill. If at any time an instructor feels a student is not prepared he/she will stop the evaluation and ask you to complete it again at a later date.

**Clinical Component:**

There is a clinical component tied to the 427 credit. You are assigned to an ACI and clinical rotation each semester. It is a student's responsibility to communicate with their ACI and understand what is expected. A student must fulfill the expectations at a satisfactory level to remain in good standing in the Athletic Training Education Program (ATEP.) You will be evaluated at mid semester and end of the semester to allow you time to modify behavior/skills if necessary. A student that does not meet expectations will be placed on probation until the next evaluation period then removed from probation if behavior/skills improved or suspended if behavior/skills were not corrected.

**Attendance:**

Contrary to previous years, attendance is required to every class period. This year, you have the opportunity to aid a doctoral candidate in her dissertation research. Although participation in this research is purely volunteer and you DO NOT have to, you must be present for the class period. Those that are not active in the research will have time to ask questions and perfect his or her clinical modality skills as well as having skills checked off of their proficiency list. Approximately mid-way through the semester, those that were active in the first section of the research will complete their tasks, and will have ample time to complete the skills that the inactive students performed. At this time, those that are participating in the study, but were not active, will become an active entity in the study.

**Athletic Training Journal:**

During the semester, you will be expected to keep an athletic training journal of your experiences. Entries will be on a weekly basis and consist of a short synopsis of what took place during the week. Also, you will document your hours of participation in the athletic training rooms. This is the time that is spent preparing your athletes, covering practices and post workout treatments. This will also include any events and time around that you fulfill. When traveling with the team, the hour log should reflect the actual time that you are spending performing treatments and competition attendance, not the time at team dinners or sitting in the bus. Please note, if you are in the athletic training room and not working with your team, then that is NOT to be included in the hour log. Please be specific, as this will be to your benefit.

Each entry will be worth a total of 10 points and you will be responsible for completing 15 entries (1 entry per week \* 10 points per entry = 150 points). Journal entries are due the week following their completion (i.e. you finish them on Saturday and bring them on Tuesday)

**Point Breakdown:**

Clinical Assignment Evaluations: 40 (Score will be taken from your end of the semester evaluation)

Proficiency Skills: 60

Athletic Training Journal: 150 points (15 x 10)

Total Points Available: 200

**Grading Scale:**

100-93	4.0	(200-186)
92-87	3.5	(184-174)
86-80	3.0	(172-160)
74-79	2.5	(148-156)
69-73	2.0	(138-146)
65-68	1.5	(130-136)
60-64	1.0	(120-128)
<60	0.0	(<120)

**Skills to be Evaluated:**

Skills a student must demonstrate at a mastery level in KIN 427-2a include: Emergency procedures, Thermal Modalities (US, Phonophoresis), Cold Modalities (Ice, Ice Massage, Emersion, Whirlpool, Cryostretch, Cryokinetics) Electrical Agents (Electrical Stimulation, TENS, Biofeedback, Iontophoresis, Traction), Intermittent Compression and Massage. (Some skills sets are split into two parts due to their length)

**Weekly Schedule:**

<b>DATE</b>	<b>Topics</b>
08/27/2007	Welcome, Syllabus Emergency Procedures/ Spineboarding
09/04/2007	Group A: Study Group B: Ultrasound/Phonophoresis
09/11/2007	Group A: Study Group B: Cold/ Hot Modalities
09/18/2007	Group A: Study Group B: Electrical agents/ Intermittent Compression
09/25/2007	Massage
10/02/2007	Mid-semester evaluations
10/09/2007	Iontophoresis
10/16/2007	Group A: Ultrasound/Phonophoresis Group B: Study
10/23/2007	Group A: Cold/Hot Modalities Group B: Study
10/30/2007	Group A: Electrical agents/Intermittent Compression Group B: Study
11/06/2007	Traction
11/13/2007	InterX
11/20/2007	Alternative modalities
11/27/2007	Kinesio-Taping
12/04/2007	No Class
12/11/2007	Finals Week - No Class



### **CAATE Competencies and proficiencies covered in this class:**

AC-P3c Establish and maintain an airway in a patient wearing shoulder pads, headgear or other protective equipment and/or with a suspected spine injury

AC-P3h Control bleeding using universal precautions

AC-P4a Open and closed wounds (using universal precautions)

AC-CP1 Demonstrate the ability to manage acute injuries and illnesses. This will include surveying the scene, conducting an initial assessment, utilizing universal precautions, activating the emergency action plan, implementing appropriate emergency techniques and procedures, conducting a secondary assessment and implementing appropriate first aid techniques and procedures for non-life-threatening situations. Effective lines of communication should be established and the results of the assessment, management and treatment should be documented.

TM-C1 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.

TM-C2 Explain the principles of physics, including basic concepts associated with the electromagnetic and acoustic spectra (e.g., frequency, wavelength) associated with therapeutic modalities.

TM-C3 Explain the terminology, principles, basic concepts, and properties of electric currents as they relate to therapeutic modalities.

TM-C4 Describe contemporary pain-control theories.

TM-C5 Describe the role and function of the common pharmacological agents that are used in conjunction with therapeutic modalities

TM-C6 Explain the body's physiological responses during and following the application of therapeutic modalities.

TM-C7 Describe the electrophysics, physical properties, biophysics, patient preparation and modality set-up (parameters), indications, contraindications, and specific physiological effects associated with commonly used therapeutic modalities.

TM-C8 Identify appropriate therapeutic modalities for the treatment and rehabilitation of injuries and illness.

TM-C9 Describe the process/methods of assessing and reassessing the status of the patient using standard techniques and documentation strategies to determine appropriate treatment and rehabilitation and to evaluate readiness to return to the appropriate level of activity. This includes the ability to:

TM-C9a Describe and interpret appropriate measurement and assessment procedures as they relate to the selection and application of therapeutic modalities.

TM-C9b Interpret objective measurement results as a basis for developing individualized therapeutic modality application and set-up (parameters).

TM-C9c Interpret the results of injury assessment and determine an appropriate therapeutic modality program to return the patient to physical activity.

TM-C9d Determine the appropriate therapeutic modality program and appropriate therapeutic goals and objectives based on the initial assessment and frequent reassessments.

TM-C9e Determine the criteria for progression and return to activity based on the level of functional outcomes.

TM-C9f Describe appropriate methods of assessing progress when using therapeutic modalities and interpret the results.

TM-C9g Interpret physician notes, postoperative notes, and physician prescriptions as they pertain to a treatment plan.

TM-C9h Describe appropriate medical documentation for recording progress in a therapeutic modality program.

TM-C10 Identify manufacturer's, institutional, state, and federal standards for the operation and safe application of therapeutic modalities.

TM-C11 Identify manufacturer's, institutional, state and federal guidelines for the inspection and maintenance of therapeutic modalities.

TM-P1 Assess patient to identify indications, contraindications, and precautions applicable to the application of therapeutic modalities.

TM-P2 Obtain and interpret baseline and posttreatment objective physical measurements to evaluate and interpret results.

TM-P3 Inspect the therapeutic modalities and treatment environment for potential safety hazards.

TM-P4 Position and prepare the patient for the application of therapeutic modalities.

TM-P5 Select and apply appropriate therapeutic modalities according to evidence-based guidelines.

TM-P6 Document treatment goals, expectations, and treatment outcomes.

TM-CP1 Synthesize information obtained in a patient interview and physical examination to determine the indications, contraindications and precautions for the selection, patient set-up, and evidence-based application of therapeutic modalities for acute and chronic injuries. The student will formulate a progressive treatment and rehabilitation plan and appropriately apply the modalities. Effective lines of communication should be established to elicit and convey information about the patient's status and the prescribed modality(s). While maintaining patient confidentiality, all aspects of the treatment plan should be documented using standardized record-keeping methods.

TM-CP1.1 Infrared Modalities

TM-CP1.2 Electrical Stimulation Modalities

TM-CP1.3 Therapeutic Ultrasound

TM-CP1.4 Mechanical Modalities

TM-CP1.5 Massage and other Manual Techniques

RM-C10 Interpret data obtained from a wet bulb globe temperature (WGBT) or other similar device that measures heat and humidity to determine the scheduling, type, and duration of activity.

RM-C16 Explain the basic principles associated with the use of protective equipment, including standards for the design, construction, fit, maintenance and reconditioning of protective equipment; and rules and regulations established by the associations that govern the use of protective equipment; and material composition.

RM-C17 Explain the principles and concepts related to prophylactic taping, wrapping, bracing, and protective pad fabrication

RM-C18 Explain the principles and concepts related to the fabrication, modification, and appropriate application or use of orthotics and other dynamic and static splints. This includes, but is not limited to, evaluating or identifying the need, selecting the appropriate manufacturing material, manufacturing the orthosis or splint, and fitting the orthosis or splint.

RM-P4 Select and fit appropriate standard protective equipment on the patient for safe participation in sport and/or physical activity. This includes but is not limited to:

RM-P4.1 Shoulder Pads

RM-P4.2      Helmet/Headgear

RM-P4.3      Footwear

RM-P4.4      Mouthguard

RM-P4.5      Prophylactic Knee Brace

RM-P4.6      Prophylactic Ankle Brace

RM-P4.7      Other Equipment (as appropriate)

RM-P5          Select, fabricate, and apply appropriate preventive taping and wrapping procedures, splints, braces, and other special protective devices. Procedures and devices should be consistent with sound anatomical and biomechanical principles.

RM-P6          Obtain, interpret, and make decisions regarding environmental data. This includes, but is not limited to the ability to:

RM-P6.1        Operate a sling psychrometer and/or wet bulb globe index

RM-P6.2        Formulate and implement a comprehensive, proactive emergency action plan specific to lightening safety

RM-P6.3        Access local weather/environmental information

RM-P6.4        Assess hydration status using weight charts, urine color charts, or specific gravity measurements

RM-CP2        Select, apply, evaluate, and modify appropriate standard protective equipment and other custom devices for the patient in order to prevent and/or minimize the risk of injury to the head, torso, spine and extremities for safe participation in sport and/or physical activity. Effective lines of communication shall be established to elicit and convey information about the patient's situation and the importance of protective devices to prevent and/or minimize injury.

DI-CP1        Demonstrate a musculoskeletal assessment of upper extremity, lower extremity, head/face, and spine (including the ribs) for the purpose of identifying (a) common acquired or congenital risk factors that would predispose the patient to injury and (b) a musculoskeletal injury. This will include identification and recommendations for the correction of acquired or congenital risk factors for injury. At the conclusion of the assessment, the student will diagnose the patient's condition and determine and apply immediate treatment and/or referral in the management of the condition. Effective lines of communication should be established to elicit and convey information about the patient's status. While maintaining patient confidentiality, all aspects of the assessment should be documented using standardized record-keeping methods.

DI-CP1.1      Foot and Toes

DI-CP1.2 Ankle

DI-CP1.3 Lower Leg

DI-CP1.4 Knee (tibiofemoral and patellofemoral)

DI-CP1.5 Thigh

DI-CP1.6 Hip/Pelvis/Sacroiliac Joint

NU-C8 Explain the physiological processes and time factors involved in the digestion, absorption, and assimilation of food, fluids, and nutritional supplements. Further, relate these processes and time factors to the design and planning of preactivity and postactivity meals, menu content, scheduling, and the effect of other nonexercise stresses before activity.

NU-C9 Describe the principles, advantages, and disadvantages of ergogenic aids and dietary supplements used in an effort to improve physical performance.