

# Minnesota State University Moorhead

## AT 323: Therapeutic Modalities

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

AT 322 - Orthopedic Clinical Assessment: Lower Extremity AND AT 322L - Orthopedic Clinical Assessment: Lower Extremity Lab AND AT 362 - Athletic Training Practicum I

Corequisites: AT 323L

MnTC Goals: None

This course will investigate the injury response process, the physiology and psychology of pain, development and delivery of treatment protocol, thermal agents, electrical agents, ultrasound, and mechanical modalities. To be taken concurrently with AT 323L.

**B. COURSE EFFECTIVE DATES:** 08/25/2008 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

### D. LEARNING OUTCOMES (General)

1. Describe contemporary pain control theories.
2. 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.
3. 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.
4. 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.
5. Describe the role and function of the common pharmacological agents that are used in conjunction with therapeutic modalities.
6. Explain the body's physiological responses during and following the application of therapeutic modalities.
7. Explain the principles of physics, including basic concepts associated with the electromagnetic and acoustic spectra associated with therapeutic modalities.
8. Explain the terminology, principles, basic concepts, and properties of electric currents as they relate to therapeutic modalities.
9. Identify appropriate therapeutic modalities for the treatment and rehabilitation of injuries and illness.
10. Identify manufacturer's, institutional, state, and federal standards and guidelines for the operation, safe application, inspection and maintenance of therapeutic modalities.

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted