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HHP 241.01: Prevention and Care of Athletic Injuries Laboratory

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HPE 240/1 - PREVENTION AND CARE OF ATHLETIC INJURIES/LAB

INSTRUCTOR: SCOTT T. RICHTER PHONE: 243-5246
OFFICE HOURS: WILL BE POSTED ON OFFICE DOOR - McGill 126

REQUIRED TEXT: ARMHIEM, DANIEL D. AND PRENTICE, WILLIAM E., PRINCIPLES OF ATHLETIC TRAINING, 10TH EDITION, 2000; PERRIN, DAVID H., ATHLETIC TAPING AND BRACING, 1ST EDITION, 1995 (OPTIONAL)

ONLINE NOTES <http://eres.lib.umd.edu/HHP240>

PREREQUISITE OR COREQUISITE: BIOL 212,213 MANDATORY OR EQUIVALENT

COURSE DESCRIPTION: Basic theories and techniques used in the management of athletic injuries are emphasized, especially prevention, treatment and reconditioning principles.

OBJECTIVES: The student should be able to:

1. Describe and demonstrate how to evaluate and determine the degree of disability of each body part.
2. Identify the mechanisms of common sports injuries.
3. Demonstrate proper first aid and methods of immobilization for common sports related musculoskeletal, and orthopedic.
4. Demonstrate and describe contemporary methods and procedures of athletic reconditioning.
5. Identify current methods of sports safety which shall include certain equipment fitting skills.
6. Demonstrate proper emergency care techniques for life threatening injuries.
7. Identify the legal duties of professionals associated with sports, and/or health and fitness promotion.
8. **SEE SPECIFIC NATA COMPETENCIES ON ATTACHED SHEET**

REQUIREMENTS:

1. TAPING SUPPLIES from UAS @ Southgate Mall
2. 4 ABSTRACTS
3. WRITTEN EXAMS - 2 MIDTERMS AND 1 FINAL COMPREHENSIVE
4. 2 PRACTICAL EXAMS - HHP 241 students
5. VIDEOTAPES AND QUIZZES

GRADING SYSTEM:

90%-100% = A
80%-90% = B
70%-80% = C
60%-70% = D
< 60% = F

POINT BREAKDOWN:

3 MIDTERMS	300 POINTS
1 FINAL	200 POINTS (optional)
4 ABSTRACTS	60 POINTS (15 PTS EA.)
CLASS PARTICIPATION	50 POINTS
QUIZZES	100 POINTS (10 PTS EA.)
TOTAL	510-710 POINTS

TENTATIVE SCHEDULE

SEPT.

05RD-WED.	LECTURE	INTRO TO SPORT MED	CH. 1
07TH-FRI.	VIDEO	SPORTS ON TRIAL	NOTES
10-MON.	LECTURE	LEGAL CONSIDERATIONS	CH. 3
12TH-WED.	LECTURE	PHYSICAL CONDITIONING	CH. 4
14TH-WED.	LECTURE	PHYSICAL CONDITIONING	CH. 4
17TH-MON.	LECTURE	MECHANISM OF INJ.	CH. 9
19TH-WED.	LECTURE	MECHANISM OF INJURIES ABS. 1	CH. 9
21ST-FRI.	LECTURE	TISSUE RESPONSE	CH. 10
24TH-MON.	LECTURE	TISSUE RESPONSE/EMERGENCY PROCEDURES	CH. 10/12
26TH-WED.	LECTURE	EMERGENCY PROCEDURES	CH. 12
28TH-FRI.	LECTURE	EMERGENCY PROCEDURES/TEST REVIEW	CH. 12

OCT.

01ST-MON.	LECTURE	TEST 1	

03RD-WED.	LECTURE	ASSESSMENT PROCEDURES ABS. 2	CH. 13
05TH-FRI.	LECTURE	EXERCISE REHAB.	CH. 16
08TH-MON.	LECTURE	THERAPEUTIC MODALITIES	PP 350-378
10TH-WED.	LECTURE	PRE-PARTICIPATION EXAM	NOTES
12TH-FRI.	LECTURE	FOOT	CH. 18
15TH-MON.	LECTURE	FOOT	CH. 18
17TH-WED.	LECTURE	THE ANKLE/LOWERLEG	CH. 19
19TH-FRI.	LECTURE	THE ANKLE/LOWERLEG	CH. 19
22ND-MON.	LECTURE	KNEE	CH. 20
24TH-WED.	LECTURE	KNEE	CH. 20
26TH-FRI.	LECTURE	THIGH/HIP/GROIN	CH. 21
29TH-MON.	LECTURE	THIGH/HIP/GROIN	CH. 21
31ST-WED.	LECTURE	ABSTRACT #3 DUE - TEST 2 REVIEW	

NOV.

02ND-FRI.	LECTURE	TEST 2	

5TH-MON.	LECTURE	THE SHOULDER	CH. 22
7TH-WED.	LECTURE	THE SHOULDER	CH. 22
9TH-FRI.	LECTURE	THE ELBOW	CH. 23
12TH-MON.	LECTURE	VETERANS DAY, HOLIDAY	
14TH-WED.	LECTURE	THE FOREARM/WRIST/HAND	CH. 24
16TH-FRI.	LECTURE	THE SPINE	CH. 25
19TH-MON.	LECTURE	THE SPINE	CH. 25
21ST-WED.	LECTURE	NO CLASS THANKSGIVING	
23TH-FRI	LECTURE	NO CLASS THANKSGIVING	
26TH-MON.	LECTURE	THE THORAX/ABDOMEN	CH. 26
28TH-WED.	LECTURE	THE HEAD/FACE	CH. 27
30TH-FRI.	LECTURE	THE HEAD/FACE ABSTRACT # 4 DUE	CH.16

DEC.

03RD-MON.	LECTURE	BLOOD-BORNE PATHOGENS	CH. 14
05TH-WED	LECTURE	ENVIRONMENTAL PROBLEMS	CH. 06
07 TH - FRI	LECTURE	DRUGS AND SPORTS	CH. 17
10 TH -MON	LECTURE	ADDITIONAL HEALTH CONDITIONS	CH. 29
12 TH -WED	LECTURE	OPEN	

14TH-FRI.	LECTURE	TEST 3	

19th-WED **FINAL EXAMINATION - COMPREHENSIVE**

TENTATIVE LAB SCHEDULE FOR SPRING 2000 (HHP 241)

SEPT

04TH-TU LAB GENERAL TAPING PRINCIPLES
05TH-TH LAB GENERAL TAPING PRINCIPLES
11TH -TU LAB FOOT ASSESSMENT AND TAPING
13TH-TH LAB FOOT ASSESSMENT AND TAPING
18TH-TU. LAB ANKLE ASSESSMENT AND TAPING
20TH-TH. LAB ANKLE ASSESSMENT AND TAPING
25TH-TU LAB NO CLASS = FACULTY RETREAT (Tuesday lab please attend on Thursday)
27TH-TH LAB LOWER LEG ASSESSMENT AND TAPING

OCT

02ND-TU. LAB EMERGENCY PROCEDURES
04TH-TH LAB EMERGENCY PROCEDURES
9TH-TU LAB KNEE ASSESSMENT AND TAPING
11TH-TH LAB KNEE ASSESSMENT AND TAPING
16TH-TU LAB PREPARATION FOR PRACTICAL EXAM
18TH-TH. LAB PREPARATION FOR PRACTICAL EXAM

23TH-TU LAB LAB TEST 1 BEGINS

25TH-TH LAB LAB TEST 1 BEGINS

30TH-TU LAB HIP AND THIGH ASSESSMENT AND TAPING

NOV

1ST-TH LAB HIP AND THIGH ASSESSMENT AND TAPING
6TH-TU LAB SHOULDER ASSESSMENT AND TAPING
8TH-TH LAB SHOULDER ASSESSMENT AND TAPING
13TH-TU LAB ELBOW ASSESSMENT AND TAPING
15TH-TH LAB ELBOW ASSESSMENT AND TAPING
20TH-TU LAB WRIST & HAND ASSESSMENT AND TAPING
22RD-TH LAB NO CLASS = THANKSGIVING (Thursday lab please attend on Tuesday)
27TH-TU LAB TOUR OF RATC/SPECIAL TAPE JOBS
29TH-TH LAB TOUR OF RATC/SPECIAL TAPE JOBS

DEC

4TH-TU/TBA LAB FINAL PRACTICAL

7TH-TH/TBA LAB FINAL PRACTICAL

August 29-31 (Wed.-Fri.)	Semester Begins, Orientation & Registration
September 3 (Mon.)	Labor Day, Holiday
September 4 (Tues.)	Classes Begin
September 27-28	Board of Regents Meeting, Billings
November 5-19	Spring 2002 Registration Begins
November 12 (Mon.)	Veterans Day, Holiday
November 15-16	Board of Regents Meeting, Bozeman
November 21, 22, 23 (Wed-Fri.)	Thanksgiving Vacation
December 15-16 (Sat. & Sun.)	Study Days
December 17-21 (Mon.-Fri.)	Final Examinations

The University of Montana Athletic Training Educational Program CAAHEP/NATA Competencies

COMPETENCIES IN ATHLETIC TRAINING CHECKLIST FOR HHP 240-241

The following competencies have been developed as guides to entry-level curriculum design, development of course content, and structuring of clinical experiences. Please identify those educational experiences (course-work, clinical experience) in your athletic training education program that provide your students with an opportunity to develop the competencies listed. Identify courses by department abbreviation and number (e.g. **HPER 350**) as they appear in your college or university catalogue. Identify clinical experiences by using the letter "C". If particular competencies are taught in more than one course, or during clinical experiences as well as coursework, please indicate **all pertinent education experiences**. If a particular competency is **not** taught in your program, please indicate by using the letter "N".

PLEASE LIST ONLY THE COURSE WHERE THE COMPETENCY IS GIVEN "PRIMARY" CONSIDERATION.

DOMAIN I - Prevention

Identifies injury/illness risk factors associated with participation in competitive athletics and plans and implements all components of a comprehensive athletic injury/illness prevention program.

Cognitive Domain (Knowledge and Intellectual Skills)

1. Basic components of a comprehensive athletic injury/illness prevention program including: a) physical examinations and screening procedures, b) physical conditioning, c) fitting and maintenance of protective equipment, d) application of taping, special pads, etc., and e) control of environmental risks.
2. Common risk factors and causes of athletic injuries in various sports as identified by contemporary epidemiological studies and athletic injury/illness surveillance systems.
3. Intrinsic risk factors associated with normal physical and psychological growth and development of the pre-adolescent, adolescent, and adult male and female athletes.
5. Sports specific risk factors associated with conditioning, coaching methods, and motor skill performance.
6. Sports specific environmental risk factors associated with climatic conditions, facilities and equipment, sanitation, etc., and associated risk management procedures, and safety guidelines.
8. Role of physical examinations and screening procedures in the identification of intrinsic injury/illness risk factors and potential disqualifying conditions.
12. Role of personal health habits in the prevention of injuries/illnesses including personal hygiene, diet and nutrition, weight control, rest, etc.
13. Basic components of in-season and off-season physical conditioning programs for development of cardiovascular-respiratory efficiency, flexibility, and muscular strength, power, and endurance specific to the needs of individual athletes and to the physical demands of specific sport activities.
18. Principles of an effective heat illness prevention program including those pertaining to acclimatization and conditioning, fluid and electrolyte replacement, selection of clothing, monitoring of weight loss, and scheduling and organization of practice sessions.
19. Normal thermoregulatory mechanisms of the human body including methods of heat dissipation and the associated effects of exposure to high environmental heat and humidity.
21. Principles of organization of practice sessions with regard to minimization of injury/illness factors.
22. Principles of energy absorption and force dissipation as applied to the protective capabilities of commercial padding materials and various types and models of standard protective equipment.
23. Comparative qualities of various types of protective sports equipment, clothing, and commercial padding materials with regard to their affect on body heat dissipation.
24. Standards for design and construction, maintenance, and re-conditioning of protective sports equipment. (NOCSAE, etc.)
25. Legal concepts and considerations associated with the purchase, fitting, and maintenance of protective sports equipment including those pertaining to product liability, personal liability, shared responsibility, etc.
26. Rules and regulations pertaining to the use of special protective equipment, braces, splints, etc. as established by governing athletic associations.

Psychomotor Domain (Manipulation and Motor Skills)

6. Collection and interpretation of climatic data (temperature, humidity) through the use of appropriate instruments (sling psychrometer, WBGT Index, etc.).
7. Selection and fitting of standard protective equipment and clothing consistent with the physical characteristics and needs of individual athletes and the demands of participation in specific sports activities.
8. Selection, fabrication, and application of appropriate preventative taping and wrapping, splints, braces, and other special protective devices consistent with sound anatomical and biomechanical principles.

Affective Domain (Attitudes and Values)

1. Acceptance of the moral and ethical responsibility to conduct safe athletic programs and to minimize injury/illness risk factors to the fullest extent possible.
2. Appreciation of the importance of developing and implementing a thorough, comprehensive injury/illness prevention program.
3. Appreciation of the need for cooperation among administrators, coaches, athletic trainers, parents, and athletes in the implementation of effective injury/illness prevention programs.

DOMAIN II: Recognition and Evaluation

Conducts a thorough initial clinical evaluation of injuries and illnesses commonly sustained by the competitive athlete and formulates an impression of the injury/illness for the primary purposes of: 1) administering proper first aid and emergency care and 2) making appropriate referrals to physicians for diagnosis and medical treatment.

Cognitive Domain (Knowledge and Intellectual Skills)

3. Anatomical and physiological growth and development characteristics as related to the pre-adolescent, adolescent, and adult male and female athlete.
5. Common injuries to each major body part as indicated by contemporary epidemiological studies of injuries in various sports.
6. Characteristic pathology of all common closed soft tissue injuries (sprains, strains, contusions, dislocations, etc.), open wounds (abrasions, lacerations, incision, punctures, etc.), and fractures.
7. The human body's normal immediate and delayed physiological response to trauma (homeostasis, inflammation, etc.).
8. Common etiological factors contributing to injury including congenital and/or acquired structural and functional abnormalities, inherent anatomical and biomechanical characteristics, common injury mechanisms, and adverse environmental conditions.
9. Relationships between etiological factors and resulting injury/illness pathologies.
11. Relationships between typical symptoms and clinical signs and injury/illness pathologies.
12. Commonly accepted techniques and procedures for clinical evaluation of common athletic injuries/illness including: a) history, b) inspection, c) palpation, d) function testing (range-of-motion testing, ligamentous, capsular stress testing, manual muscle testing, sensory and motor neurological testing, etc.), and e) special evaluation techniques.

Psychomotor Domain (Manipulative and Motor Skills)

1. Construction and phrasing of questions appropriate to obtaining a medical history of an injured/ill athlete including a past history and a history of the present injury/illness.
2. Identification of observable clinical signs typically associated with common athletic injuries/illnesses including structural deformities, edema, discoloration, etc.
3. Location and palpation of "key" anatomical structures commonly involved in injury pathology including bony landmarks, ligamentous, capsular tissues, musculotendinous structures, abdominal regions, etc.

Affective Domain (Attitudes and Values)

2. Recognition of the initial clinical evaluation by the Certified Athletic Trainer as an assessment and screening procedure rather than a "diagnostic" procedure.
3. Appreciation of the practical importance of thoroughness in the initial clinical evaluation of the athlete's injury/illness.
4. Respect for the injured athlete as an individual deserving of quality professional health care.
5. Acceptance of the injured athlete's physical complaint(s) without personal bias or prejudice.

DOMAIN III: Management, Treatment and Disposition

Provides appropriate first aid and emergency care for acute athletic injuries/illnesses according to accepted standards (American Red Cross, American Heart Association, or equivalent) and refers injured/ill athletes to appropriate medical/paramedical personnel for evaluation, diagnosis and follow-up.

Cognitive Domain (Knowledge and Intellectual Skills)

1. Basic components of a comprehensive athletic injury emergency care plan including: a) personnel training, b) equipment, c) emergency care facilities, d) communication systems, e) transportation, f) game and practice coverage, and g) record keeping.
2. Typical community based emergency health care delivery plans including communication and transportation systems.
4. Roles and responsibilities of various community based emergency care personnel (paramedics, emergency medical technicians, emergency room physicians, etc.).
5. Legal, moral, and ethical parameters which define the scope of first aid and emergency care and identify the proper role of the certified athletic trainer.
6. Typical administrative policies and procedures governing first aid and emergency care including those pertaining to parental consent, notification of parents, accident reports, and record keeping.
7. Availability, purpose, and maintenance of contemporary first aid and emergency care equipment and supplies and commonly recommended contents of emergency care field kits.
11. Standard nomenclature of athletic injuries and communication of identified clinical signs and symptoms to medical personnel using commonly accepted medical terminology.

Psychomotor Domain (Manipulative and Motor Skills)

1. Application of first aid procedures for closed soft tissue injuries including the use of pressure bandages, ice, and elevation.
4. Application of immobilization devices including cervical collars, spine boards, fixation and traction splints, shoulder immobilizers, slings, etc.

Affective Domain (Attitudes and Values)

2. Appreciation of the importance of developing a through, comprehensive athletic injury emergency care plan and the need for continual review and practice of emergency care procedures.
3. Realization of the injured athlete's physical, emotional, and psychological dependence on the Certified Athletic Trainer as an initial health care provider.

DOMAIN IV: Rehabilitation

Plans and implements a comprehensive rehabilitation/reconditioning program for injuries/illnesses sustained by the competitive athlete.

Cognitive Domain (Knowledge and Intellectual Skills)

4. Normal physiological responses of the human body to trauma, physiological process of wound healing and tissue repair, effects of trauma and inactivity on specific body tissues (ligaments, capsules, muscles, tendons, bones, etc.), and resulting implications for selection and use of therapeutic modalities and rehabilitation exercises.
7. Role and function of commonly used prescription and non-prescription pharmacological agents in the medical treatment of common athletic injuries/illnesses.
8. Contemporary immobilization devices (casting materials, splints, etc.) and special protective equipment (braces, special pads, modified taping procedures, etc.).
9. Contemporary ambulation aids and ambulation techniques (crutch gaits, cane gaits, special ambulation techniques).
19. Comparative effectiveness of taping and bandaging, special padding, and standard protective equipment as related to the safe return of injured athletes to competition.
20. Environmental risk factors affecting the safe return of injured athletes to competition including those associated with weather conditions, facilities and playing surfaces, inherent physical demands in particular sports, coaching methods, etc.
11. Application of special protective devices (braces, splints, special pads, etc.) and taping, bandaging, and wrapping procedures.

Affective Domain (Attitudes and Values)

1. Acceptance of the professional, ethical, and legal parameters which define the proper role of the certified athletic trainer in the treatment and rehabilitation of injured athletes including the use of drugs and therapeutic agents.

DOMAIN V: Organization and Administration

Plans, coordinates and supervises all administrative components of an athletic training program for a high school, college, or professional athletic organization including those pertaining to: (1) health care services (physical examinations and screening, first aid and emergency care, follow-up care and rehabilitation, etc.), (2) financial management, (3) training room management, (4) personnel management, and (5) public relations.

Cognitive Domain (Knowledge and Intellectual Skills)

1. Basic concepts of legal liability as they apply to the Certified Athletic Trainer and his/her performance of job responsibilities (standard of care, liability, defenses against negligence, informed consent, etc.).
3. Policies, guidelines, and rules and regulations of governing athletic associations, professional associations, or other authoritative groups pertaining to the health, safety, and welfare of the athlete.
4. Local, state, and federal safety and sanitation standards for health care facilities, therapeutic modalities, and other equipment.
5. Current guidelines and recommendations for conduction of athletic physical examinations developed by governing athletic associations, medical groups, or other related professional organizations.
6. Basic components of a comprehensive plan for physical examination and screening of athletes for competition including: (a) a medical history, (b) the physical examination, and (c) medical authorization for participation.

DOMAIN VI: Education and Counseling

Provides health care information and advises and counsels athletes, parents, and coaches on matters pertaining to the physical, psychological, and emotional health and well being of the competitive athlete. Interprets the role of the certified athletic trainer as a health care provider, promotes athletic training as a professional discipline, and provides instruction in athletic training, sports medicine subject matter areas.

Cognitive Domain (Knowledge and Intellectual Skills)

1. Role of coaches and athletes in reducing injury/illness risks including those relating to physical conditioning, acclimatization, fluid and electrolyte replacement, care and maintenance of protective equipment, organization of practice sessions, coaching methods, etc.
2. Physiological effects of physical activity on menstruation (oligomenorrhea, amenorrhea, dysmenorrhea) and associated psychological considerations.
5. Symptoms and clinical signs of common eating disorders (anorexia, bulimia, etc.).
8. The physiological effects, comparative benefits, and contraindications to the use of ergogenic aids (drugs, foodstuffs, physical agents, etc.).
9. The effects of commonly abused drugs and other substances on the athlete's physical and psychological health and athletic performance (alcohol, tobacco, stimulants, steroids, narcotics, etc.).
19. History and development of athletic training and sports medicine in the United States.
22. Current activities pertaining to the professional preparation, credentialing (certification/licensure), and continuing education of athletic trainers in the United States.
25. Contemporary issues and problems confronting athletic training/sports medicine and their affect on athletic health care in the United States.
27. Tasks required for entry-level proficiency of athletic trainers within the six major domains of the NATA Role Delineation Study.

Affective Domain (Attitudes and Values)

3. Recognition of the athletic trainer's role as a liaison among athletes, coaches, health care professionals, parents, and other involved individuals.