

Step #7 (Executive Vice President/Provost): Date Received MAY 2, 1998

Approved

NOT Approved If no, reasons are as follows:

Student Credit Hours _____

Faculty Load Hours _____

Equalized Credit Hours _____

Official Copy & Approval Sheet Filed (Date) 5/24/98

Executive Vice President/Provost Signature C. H. Stover

Registrar

Date Approved Course Description Received: 5/27/98

Hgis Taxonomy and Course Number Assigned 0835-219

Signature of Registrar Robert A. Kulvat 5/28/98

Notification Forward:

Senate Curriculum Committee Chairperson

Department Chairpersons

Academic Dean(s)

Registrar

Sponsor(s)

COURSE PROPOSAL

1. **Details**

- a. Course Title
Pathology and Evaluation of Athletic Injuries I
- b. Sponsors: Marsha L. Grant Ford, MEd, ATC
James Burd, Department Chair
Department of Health and Exercise Science
- c. 4 S.H.
- d. Course Level: Undergraduate (sophomore level)
- e. Prerequisites: Anatomy and Physiology I and II or equivalent, Prevention and Care of Athletic Injuries
- f. Implementation: Fall Semester 1998
- g. Curricular Effect: Athletic Training Specialization Requirement. This course replaces Advanced Techniques in Athletic Injuries (0835.415) and Physical Assessment of Athletic injuries (0835.416). There is no other effect on departmental offerings.
- h. Resource Requirements: Faculty must be a NATA certified athletic trainer with a master's degree and at least one year of full time experience as a NATA certified athletic trainer. Current full time staff is adequate. Present facilities are adequate.
- i. Library resources:
It is recommended that the following resources be added to complement current holdings.

Netter, Frank H.
Atlas of Human Anatomy
Ciba-Geigy Corporation ISBN 0914168193

McMinn, R.M.H. and Hutchings, R.T.
Color Atlas of Human Anatomy
Year Book Medical Publishers ISBN 0815158238

Norkin, Cynthia and Levengie, Patricia
Joint Structure and Function
F.A. Davis Company ISBN 0803665776

Sieg, K.W. and Adams, S.P.
Illustrated Essentials of Musculoskeletal Anatomy
Megabooks, Gainesville, FL ISBN 0935157026

Cailliet, R.
Lower Back Pain Syndrome
F.A. Davis ISBN 0803616104

j. Required Materials:

Starkey, Chad and Ryan, Jeff
Evaluation of Orthopedic and Athletic Injuries
F.A. Davis ISBN 0803600488

Magee, David
Orthopedic Physical Assessment
W.B. Saunders Company ISBN 0721643442

Hoppenfeld, Stanley
Physical Examination of the Spine and Extremities
Appleton-Century-Crofts ISBN 0838578535

Norken, C.C. and White, D.J
Measurement of Joint Motion: A Guide to Goniometry
F.A. Davis ISBN 0803665792

2. **Rationale:**

Entry level information pertaining to the profession of athletic training is required for CAAHEP accreditation. Instructional emphasis will be placed on specific NATA competencies. The core of this course is two former courses, Advanced Techniques in Athletic Training (0835.415) 3 S.H. , and Physical Assessment of Athletic Injuries (0835.416) 3 S.H.. The name change more accurately reflects the content of the course. The combining of the two entities will benefit students by introducing and combining pathology and evaluation of the upper and lower extremities respectively, in the same semester. The separation into two courses to emphasizes all competencies and more thoroughly provides students with the requirements necessary for effective functioning as an entry-level certified athletic trainer.

3. **Essence of the Course:**

a. Objectives: NATA competencies in athletic training will be addressed. By the completion of the course

(Cognitive) The student will be able to identify:

1. Normal anatomical structures of the human body including the musculoskeletal (including articulations), nervous (central and peripheral, cardiovascular, respiratory, digestive, urogenital, and special sensory systems.
2. Common injuries* to each major body part as indicated by contemporary epidemiological studies of injuries in various sports.

3. Characteristic pathology of all common closed soft tissue injuries* (sprains, strains, contusions, dislocations, etc.), open wounds (abrasions, lacerations, incisions, punctures, etc.), and fractures.
4. Common etiological factors contributing to injury including congenital and/or acquired structural and functional abnormalities, inherent anatomical and biomechanical characteristics, common mechanisms and adverse conditions.
5. Relationships between etiological factors and resulting injury/ illness* pathologies.
6. Relationships between typical symptoms and clinical signs and injury/illness* pathologies.
7. Commonly accepted techniques and procedures for clinical evaluation of common athletic injuries/ illnesses* including (a) history, (b) inspection, (c) palpation, (d) functional testing (range-of-motion testing), ligamentous/ capsular stress testing, manual muscle testing, sensory and motor neurological testing, etc.), and (e) special evaluation techniques.

(Psychomotor) The student will be able to demonstrate:

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 structure commonly involved in injury* pathology including bony landmarks, ligamentous/ capsular tissues, musculotendinous structures, abdominal regions, etc.
4. Administration of active and passive range-of-motion tests for all major joints of the body including the use of goniometric measurements.
5. Use of manual muscle testing techniques including application of the principles of muscle/ muscle group isolation, segmental stabilization, resistance/ pressure, grading, etc.
6. Administration of appropriate clinical laxity (stress) tests for ligamentous/ capsular instability including application of joint positioning, segmental stabilization, pressure, etc.
7. Administration of appropriate sensory and neurological tests for intracranial injuries (conscious and unconscious athlete), and injuries to the spinal cord, nerve root, plexuses, and peripheral nerves.
8. Administration of commonly used "special tests" for evaluation of athletic injuries* to various anatomical area (Thompson test, apprehension test, etc.).

9. Incorporation of appropriate examination techniques and procedures into an effective, systematic scheme of clinical evaluation.

(Affective) The student will demonstrate an understanding of:

1. Acceptance of the professional, ethical, and legal parameter which define the proper role of the certified athletic trainer in the evaluation of athletic injuries/ illnesses* and medical referral.
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*.

**Injury/ illness competencies established by CAAHEP include:

1. General Musculoskeletal Disorders/ Inflammatory Conditions
arthritis, apophysitis, bursitis, chondral fracture, chondromalacia, contusion, dislocation, enthesitis, epicondylitis, epiphyseal plate injury, epiphysitis, exostosis, fasciitis, fibrositis, fracture, lymphangitis, myositis, myositis ossificans, neuritis, osteochondral fracture, osteochondritis, osteochondritis dissecans, osteomyelitis, periostitis, radiculitis,, sprain, strain, subluxation, tendinitis, tenosynovitis

2. Ankle/Foot/ Leg

achilles tendon rupture, ankle dislocation, ankle sprain/strain/ fracture, anterior compartment syndrome, apophysitis (calcaneus), arch sprain (transverse, longitudinal), bunion, bursitis (retrocalcaneal, etc.), chondral/osteochondral fracture (ankle, etc.), corn, dislocation of peroneal tendons, epiphyseal plate injury (distal tibia, distal fibula, etc.), fracture (tibia, fibula, tarsals, metatarsals, etc.), great toe sprain, hallux valgus, hammer toe, heel spur, ingrown toenail, medial tibial stress syndrome (shin splints), osteochondritis dissecans, pes cavus, pes planus, plantar fasciitis, plantar neuroma, plantar wart, plantaris muscle rupture, stress fracture (tibia, fibula, metatarsals), subungual hematoma, talotibial exostosis, tarsal tunnel syndrome, tendinitis/tenosynovitis (achilles tendon, etc.)

3. Knee

bursitis (suprapatellar, infrapatellar, etc.), chondral/osteochondral fracture, chondromalacia (patella), patellofemoral arthralgia, dislocation (patella, knee), epiphyseal plate injury (proximal tibia, distal femur, etc.), fat pad contusion, fracture (patella, tibia, femur), iliotibial band friction syndrome, meniscal tear, osteochondritis dissecans, Osgood Schlatter's disease, patellar tendon rupture, peroneal nerve contusion, popliteal cyst, sprain, tendinitis (patella, popliteus, etc.)

4. Thigh/Hip/Pelvis

Apophysitis (ilium), bursitis (trochanteric, iliopectineal, etc.), dislocation (hip), epiphyseal plate injury (proximal femur), fracture (pelvis, femur), iliac crest contusion, iliotibial band syndrome, myositis ossificans, osteitis pubis, piriformis syndrome, quadriceps contusion, sacroiliitis, slipped capital femoral epiphysis, sprain (hip), strain (quadriceps, hamstrings, etc.), stress fracture (pelvis, femur), tendinitis

5. Spinal Column

brachial plexus stretch, dislocation/ subluxation (vertebrae), fracture (vertebrae), intervertebral disc rupture/ herniation, nerve root compression, spinal cord injury (concussion, contusion, transection), spondylitis, spondylosis, spondylolysis, spondylolisthesis, sprain (intervertebral, cervical, lumbosacral, sacroiliac), strain

b. Topical Outline:

1. Structural, functional and surface anatomy as it relates to human performance and athletic injury and illness of the lower extremity to lumbar spine.
2. The mechanisms of tissue injury and healing to soft tissue, bone and nerve as it relates to injury and illness to the lower extremity up to and including the lumbar spine.
3. The following elements will be thoroughly explored pertaining to the foot and toes, ankle and lower leg, knee, patellofemoral articulation, pelvis and thigh, and lumbar spine: pathology, etiology, epidemiology, evaluation (history, inspection, palpation, active/passive/ resisted range of motion, functional tests, neurological testing, stability tests and criteria for return to competition).
4. Current management philosophies for lower extremity injury and illness pathologies.

c. Evaluation and Grading Procedure

1. writing intensive project (ie case study and/or research paper)
2. written quizzes
3. written examination
4. practical examination
5. paper patient exercise

d. Course Evaluation

1. student evaluation
2. review by department athletic training education program director
3. review by department curriculum committee

4. Letters of Consultation

This course is not being taught elsewhere on campus,
nor does it have an impact on other departmental course
offerings.

Catalog Description

Pathology and Evaluation of Athletic Injuries I

Prerequisites: Anatomy and Physiology I and II or equivalent and
Prevention and Care of Athletic Injuries

This course provides an examination of the etiology, epidemiology, pathology and assessment of injuries and illnesses to the lower extremity. Structural, functional and surface anatomy will be reviewed. Current management philosophies will be addressed.