

MED 804: Musculoskeletal and Skin (MSS)

Autumn 2017

Mondays, Tuesdays & Fridays
8:00 a.m. to 12:00 p.m. & 1:00 to 5:00 p.m.
1001 Shadow Lane

Course Chairs:
Michael Daubs, MD
Robert Liberman, MD

Course Description and Learning Objectives:

This course takes an integrated approach to the musculoskeletal and integumentary systems to provide a broad understanding of the normal structure and function of muscle, bone, joint, connective tissue, and skin. A comprehensive overview of pathophysiology, epidemiology, anatomy and embryology, biostatistics, diagnostic tests, as well as therapeutic principles related to musculoskeletal and dermatologic disorders are covered.

- Describe the essential features of the musculoskeletal and integumentary systems, their normal structure and function, and the epidemiology, clinical features, pathogenesis, pathophysiology, and laboratory findings associated with musculoskeletal and dermatologic diseases.
- Identify appropriate therapeutic options for selected musculoskeletal and dermatologic diseases.
- Determine how epidemiologic, socioeconomic, behavioral, sociocultural, and community factors may impact the care of patients with musculoskeletal and dermatologic diseases.
- Describe how wellness, nutrition, hospitality principles, pain management, and integrative medicine may contribute to the care of patients with musculoskeletal and dermatologic diseases.
- Recognize bioethical issues germane to the medical care of patients with musculoskeletal and dermatologic diseases.
- Recognize end-of-life issues germane to patients with musculoskeletal and dermatologic diseases.
- Construct a differential diagnosis based on the clinical presentation of a patient with a musculoskeletal and/or dermatologic disease and apply diagnostic reasoning to narrow the differential diagnosis.
- Develop pertinent clinical questions related to the diagnosis and/or treatment of musculoskeletal and dermatologic diseases, and utilize appropriate resources to answer those questions in a self-directed fashion.

Required and Recommended Textbooks:

Required

- Drake, R. L., Vogl, W. A., & Mitchell, A. W. (2015). *Gray's Anatomy for Students*. 3rd ed. Elsevier Saunders.
- Ross, M. H., & Paulina, W. (2015). *Histology: A Text and Atlas: with Correlated Cell and Molecular Biology*. 7th ed. Wolters Kluwer | Lippincott, Williams & Wilkins.

Recommended

To be determined at the onset and throughout the duration of the course to aid/facilitate learning objectives.

Course Schedule & Weekly Objectives:

Week 1 – November 20-22, 2017 & Thanksgiving Break – Skeletal Muscle

Topics include:

- Normal embryology and anatomy of the gluteal region, thigh, and hip joint
- Salient histologic features of skeletal muscle
- Normal structure and function of skeletal muscle, integrating cell biology with the physiologic aspects
- Clinical features, pathogenesis, and diagnostic findings associated with selected disorders that affect skeletal muscle, including muscular dystrophy, certain immunologic diseases (e.g. polymyositis), and rhabdomyosarcoma
- Epidemiology of selected diseases of skeletal muscle
- Uses, contraindications, side effects, and major drug-drug interactions of pharmacologic agents that impact skeletal muscle, including NSAIDs, analgesics, and muscle relaxants

Assigned Readings & Review Materials:

Week 2 – November 27 – December 1, 2017 – Bone

Topics include:

- Normal embryology and anatomy of the leg, knee, and dorsum of the foot
- Recognize the salient histologic features of bone
- Normal structure and functions of bone, integrating cell biology with physiologic aspects
- Clinical features, pathogenesis, and diagnostic findings associated with selected developmental and metabolic disorders of bone (including osteogenesis imperfecta, osteoporosis, and osteomalacia)
- Clinical and diagnostic findings associated with selected infectious, traumatic, and degenerative disorders of bone (including osteomyelitis, certain fractures, and osteoarthritis)
- Clinical features, pathogenesis, and diagnostic findings associated with selected tumors involving the bone (including osteosarcoma and metastatic disease)
- Epidemiology of selected diseases of bone
- Major therapeutic modalities for treating disorders that affect the bone (including the uses, contraindications, side effects, and major drug-drug interactions associated with various pharmacologic interventions)

Assigned Readings & Review Materials:

EXAM 1: December 4, 2017

Weeks 3&4 –December 4-15, 2017 – Joint

Topics include:

- Normal embryology and anatomy of the back, dorsal scapula, and posterior arm
- Normal embryology and anatomy of the arm, axilla, and brachial plexus
- Salient histologic features of joints
- Normal structure and functions of the joints, integrating cell biology with the physiologic aspects
- Clinical features, pathogenesis, and diagnostic findings associated with selected joint infectious and immunologic disorders, including septic arthritis, Lyme disease, RA, and ankylosing spondylitis (AS)

- Clinical features, pathogenesis, and diagnostic findings associated with selected metabolic, degenerative, and idiopathic joint disorders, including gout, scoliosis, and degenerative disc disease
- Clinical features, pathogenesis, and diagnostic findings associated with selected tumors involving the bone (including synovial sarcoma)
- Epidemiology of selected diseases of the joint
- Major therapeutic modalities for treating disorders that affect the joints (including the uses, contraindications, side effects, and major drug-drug interactions associated with various pharmacologic interventions)

Week 5 – December 18-22, 2017 – Skin*Topics include:*

- Salient histologic features of skin
- Normal structure and functions of skin, integrating cell biology with the physiologic aspects
- Significance of normal skin flora
- Clinical features, pathogenesis, and diagnostic findings associated with selected autoimmune disorders of the skin (including collagen vascular disease, vasculitis, atopic dermatitis and psoriasis, and selected infectious diseases)
- Clinical features, pathogenesis, and diagnostic findings associated with selected traumatic disorders of the skin (including ulcers and the effects of radiation)
- Clinical features, pathogenesis, and diagnostic findings associated with selected neoplasms of the skin, including keratinocyte-derived tumors, melanoma, and cutaneous lymphoma
- Clinical features, pathogenesis, and diagnostic findings associated with metabolic and inherited disorders that affect the skin (including vitamin deficiencies, Ehlers-Danlos syndrome, and Marfan syndrome)
- Epidemiology of selected diseases of skin.
- Major therapeutic modalities for treating disorders that affect the skin (including the uses, contraindications, side effects, and major drug-drug interactions associated with various pharmacologic interventions)

FINAL EXAM: December 22, 2017**Course Requirements & Evaluation:**

Two (2) summative National Board of Medical Examiners (NBME) exams will be administered throughout the duration of the course, utilizing U.S. Medical Licensing Examination (USMLE)-type questions. Formative and summative assessments for small group activities, *e.g.* active engagement in problem-based learning sessions, in addition to preparation quizzes and written assignments will be administered throughout the course's duration. It is imperative that students engage in individual, small group, and class discussions to effectively contribute to active learning activities as well as offer and receive constructive feedback and assessment.

Students are expected to arrive on time to all course sessions and prepared to participate actively and engage in all learning and small group activities. Additionally, students are expected to be respectful, take responsibility and accountability for their own choices, actions, and/or decision. This includes the demonstration of personal and professional integrity.

Grading:

A pass/fail (P/F) grade is based upon satisfactory participation in small group activities, the timely

completion of written assignments and exercises, and successful passage on the summative NBME exams.

Dress Code:

Students represent not only themselves, but also the medical profession to those with whom they have contact. Appropriate and professional attire should be worn, especially when students are in patient care settings or when contact with patients is anticipated. Students should be aware that personal appearance may serve to inspire or hinder the establishment of the trust and confidence that are essential in the doctor-patient relationship. Jeans, sandals, and shorts (and other casual attire) are not considered professional dress. Scrubs are worn in the operating room, in the anatomy lab or in other clinical circumstances to protect the operator's clothing from soilage. Scrubs, in general, should not be worn outside of the lab or hospital, and scrubs worn in the operating room should not be worn outside of the operating room. (*Please refer to Section 6: Professionalism in the UNLV SOM Student Handbook for guidelines pertaining specifically to dress and deportment.*)

University Expectations and Resources:

Academic Misconduct – Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: <http://studentconduct.unlv.edu/misconduct/policy.html>.

Copyright – The University requires all members of the University Community to familiarize themselves and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: <http://www.unlv.edu/provost/copyright>.

Disability Resource Center (DRC) – The UNLV Disability Resource Center (SSC-A 143, <http://drc.unlv.edu/>, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with UNLV SOM's Senior Associate Dean for Student Affairs, as well as a Disabilities Specialist at the DRC to discuss appropriate options.

If you are registered with the UNLV Disability Resource Center, please submit your Academic Accommodation Plan from the DRC to UNLV SOM's Office of Student Affairs to develop strategies for implementing an accommodations plan that meets both your needs and UNLV SOM requirements. Any information provided is private and confidential. To maintain confidentiality, please do not approach course chairs or instructors before or after class to discuss accommodation needs.

Religious Holidays Policy – Any student missing class quizzes, examinations, or any other class or

lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the Senior Associate Dean for Student Affairs and the course chair or faculty preceptor no later than the end of the first two weeks of classes, January 31, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university that could not have reasonably been avoided. For additional information, please visit: <http://catalog.unlv.edu/content.php?catoid=6&navoid=531>.

Incomplete Grades – Course or clerkship/elective faculty share responsibility with individual students to monitor their performance in the curriculum. The Student Progress Committee (SPC) follows student performance throughout the curriculum, and is responsible for approving all remediation plans once students have been assigned an insufficient grade, such as an ‘Incomplete’ or ‘Fail.’

Remediation plans are developed by individual course directors, based upon individual student’s identified academic and professional deficits, and tailored by both the course director and the SPC. The SPC determines deadlines for the adequate remediation of the course and provides final approval of the remediation plan. Students have the option, upon request, to appear before the SPC when plans for remediation are being considered.

Please note: In Phase 3 of the curriculum, any remediation of elective or advanced clerkship deficits must be completed prior to April 1 to meet the School of Medicine’s graduation requirements. Students are not permitted to remediate more than two (2) course grades of ‘Incomplete’ during a single academic year. Students who receive more than two incomplete grades must be reviewed by the SPC. *(Please refer to Section 7: Academic Policies in the UNLVSOM Student Handbook for guidelines pertaining specifically to academic progress and actions.)*

Tutoring & Academic Resources – The Academic Skills Team (AST) provides academic assistance for all UNLVSOM students taking UNLVSOM courses. Students are encouraged to stop by the AST to utilize a variety of academic services, including test-tasking skills and strategies, coping with test anxiety, and improving self-study skills in preparation for USMLE and board exams. The AST is located at: 2040 West Charleston Boulevard, 89102.

UNLV E-mail – By policy, faculty and staff should e-mail students’ UNLV e-mail accounts only. All UNLV students receive a Rebelmail account after they have been admitted to the university. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. Students’ e-mail prefixes are listed on class rosters, and the suffix is: @unlv.nevada.edu.