

<u>Course Number</u>	Rad 100
<u>Course Title</u>	Introduction to Medical Imaging
<u>Prerequisites</u>	None
<u>Credit Hours</u>	3
<u>Weekly Schedule</u>	Tuesday 2:30-5:15PM, BHS 134
<u>Office Hours</u>	Tuesday 1:00-2:00pm or by appointment
<u>Instructor</u>	Bing Ma, PhD, BHS 348, 702-895-3136 Email: <a href="mailto:bing.ma@unlv.edu">bing.ma@unlv.edu</a>

### Course Description

This course is designed as an introduction to the field of diagnostic medical imaging. The class will assess and exam many aspects of a medical imaging department from the perspective of technologists in the field. An overview of many facets including the various imaging modalities, communication and safety issues, patient assessment, and the diagnostic value of different modalities when imaging in various organ systems. Furthermore, a central theme throughout the course will be medical terminology as it related to diagnostic medical imaging.

### Course Objectives

1. Define the medical terminology of various body systems
2. Explain the various modalities within Radiology
3. Define ethics and relate it to medical imaging
4. Identify various professional opportunities in Radiology

### Procedures for Individual Differences

Students with learning disabilities will be given an opportunity to receive individual tutoring. If you have a documented disability that may require assistance, you will need to contact the disability Resource Center (DRC) for coordination in your academic accommodations. The DRC is located in Reynolds Student Services Complex in Room 137. The DRC phone # is 895-0866 (TDD 895-0653)

### Attendance and Grading

Students are expected to attend class and be on time. Class will start at the designated time offered. A student that is constantly late to class or does not attend class regularly may result in a grade reduction.

There will be four Quizzes throughout the semester. Only the three highest grades out of the four quizzes will be used to calculate your final grade. THERE WILL BE NO MAKEUPS!

The student's final grade will be based on an average of the three highest scores out of the four quizzes given.

A = 93-100

C = 73-76

A- = 90-92

C- = 70-72

B+ = 87-89

D+ = 67-69

B = 84-86

D = 64-66

B- = 80-83

D- = 60-63

C+ = 77-79

F = 0-59

### Texts

LaFleur-Brooks, Exploring Medical Language, Ed. 9 Mosby 2013

Gurley, Callaway, Introduction to Radiologic Technology, Ed. 7 Elsevier, 2011

### References

Willis, CW, Medical Terminology, Lippincott, Williams, Wilkins

Wilson, BG, Ethics and Basic Law for Medical Imaging Professionals

Mosby's Medical, Nursing and Allied Health Dictionary, Mosby Publishing

### **TENTATIVE** Outline of Weekly Schedule

EML = Exploring Medical Language

IRT = Introduction to Radiologic Technology

January 19 – Introduction to course requirements, introduction to radiology and various medical imaging modalities (IRT – 5 & 8), introduction to words (EML – 1 & 2)

January 26 – Critical thinking (IRT – 3), radiography education: from classroom to clinic (IRT – 6), Directional and anatomical planes (EML – 3)

February 2 – Nuclear Medicine

February 9 – Quiz #1

February 16 – Ethics and professionalism in radiologic technology (IRT – 11), Respiratory System (EML – 5)

February 23 – Radiography

March 1 – Knowing your patient (IRT – 12), Patient care (IRT – 13); Urinary terms (EML – 6)

March 8– Quiz # 2

March 15 – Medicolegal considerations (IRT – 14), organization of the radiology department (IRT – 15), Cardiovascular (EML – 10)

March 22 – Spring break recess

March 29 – Economics of Radiology (IRT – 16), Quality Assurance (IRT – 17); Joint review committee on education in radiologic technology (IRT – 21), Digestive System (EML – 11)

April 5 – Quiz # 3

April 12 – ARRT (IRT – 20), professional development and career advancement (IRT – 24), continuing education (IRT – 25); Nervous System terms (EML – 15)

April 19 – MRI

April 26 – Ultrasound

May 3 – Study week

May 10, 3:10–4:40p.m. – Quiz # 4

### **University Policies:**

**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 a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to me during office hours so that we may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach me before or after class to discuss your 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 instructor no later than the end of the first two weeks of classes, **September 6**, 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 reasonably be avoided. For additional information, please visit: <http://catalog.unlv.edu/content.php?catoid=4&navoid=164>.

**Incomplete Grades** - The grade of I – Incomplete – can be granted when a student has satisfactorily completed all course work up to the withdrawal date of that semester/session but for reason(s) beyond the student's control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. A student who receives an I is responsible for making up whatever work was lacking at the end of the semester. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade.

**Tutoring** – The Academic Success Center (ASC) provides tutoring and academic assistance for all UNLV students taking UNLV courses. Students are encouraged to stop by the ASC to learn more about subjects offered, tutoring times and other academic resources. The ASC is located across from the Student Services Complex (SSC). Students may learn more about tutoring services by calling (702) 895-3177 or visiting the tutoring web site at: <http://academicsuccess.unlv.edu/tutoring/>.

**UNLV Writing Center** – One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: <http://writingcenter.unlv.edu/>

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

**Library Resources** – Students may consult with a librarian ([www.library.unlv.edu/consultation](http://www.library.unlv.edu/consultation)) about research needs. For this class, the subject librarian is Xan Goodman. UNLV Libraries provides resources to support students' access to information. Discovery, access, and use of information are vital skills for academic work and for successful post-college life. Access library resources and ask questions at [www.library.unlv.edu/](http://www.library.unlv.edu/)

**Final Examinations** – The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at:  
<http://www.unlv.edu/registrar/calendars>.

**Any other class specific information** - (e.g., absences, make-up exams, extra credit policies, plagiarism/cheating consequences, policy on electronic devices, specialized department or college tutoring programs, bringing children to class, policy on recording classroom lectures, etc.)