

**JACKSON COLLEGE**  
**DMS-100 INTRODUCTION TO DIAGNOSTIC MEDICAL IMAGING**  
**SYLLABUS AND COURSE TIMELINES**

**To print use your keyboard functions (ctrl + p) to print with a PC, or use the (command/apple + p) on a Mac.**

**FACILITATOR:**

Sandy Brown, MA, RDMS, RVT  
Allied Health Department  
Jackson College  
Michigan Medicine  
(O) 734 647 3219  
(H) 517 768 7351  
(Fax) 734 232 5228  
E-mail: [brownsandral@jccmi.edu](mailto:brownsandral@jccmi.edu)  
[sabr@med.umich.edu](mailto:sabr@med.umich.edu)

**Office:** No campus office. Office hours: Anytime by appointment. **Please contact me using Sandy's Virtual Office** (a private forum in the course between you and I), other alternatives are e-mail. Please provide the course and section you are in when contacting me via email, but I will likely have you post to my virtual office forum within the course. **\*\*Email must come from your JC account. Outside email will not be accepted. \*\***

**COURSE DESCRIPTION:** Students are introduced to the radiologic sciences. Modalities discussed include X-rays, nuclear medicine, ultrasound, computed tomography (CT), magnetic resonance imaging (MRI), and photon emission tomography (PET). Students learn indications for a variety of diagnostic studies, how they are evaluated and interpreted, correlations of multiple studies, and how to prepare the patient for the study.

**Suggested Text:** Professionalism in Health Care: A Primer for Career Success, 5/E  
**Sherry Makely**

ISBN-10: 0134415671  
ISBN-13: 9780134415673

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Copyright: 2017  
Format: Paper  
Click [here](#) for a digital version

**Course Objectives:**

Students who successfully complete the Introduction to Diagnostic Imaging course will be able to identify and differentiate between diagnostic imaging modalities, which will be assessed by passing the final exam with a grade of 75% or better.

Students who successfully complete the Introduction to Diagnostic Imaging course will demonstrate an interest in learning about a career in diagnostic imaging, which will be assessed by passing the final exam with a grade of 75% or better.

**Center for Student Success:** Tutors (plus additional services for academic success) can be accessed by calling 796-8415 or by stopping by the Center for Student Success, Bert Walker Hall.

Students requiring special assistance (including those affected by the Americans with Disabilities Act) should contact the Center for Student Success.

*Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the office of Learning Support Services at 787-0800, extension 8270/8553 as soon as possible to ensure that such accommodations are implemented in a timely fashion.*

**SUGGESTED SCHEDULE OF ASSIGNMENTS (you are welcome to finish early) ALL ASSESSMENTS MUST BE DONE BY THE DUE DATE. Follow the tips for being a successful online student, and enjoy the class. You must read/do all items listed under the Required Resources & Activities label in the order listed. *There is at least one assessment every week. Missing a deadline will result in a ZERO score. No exceptions will be made, so be sure you have a secure internet connection, and never wait until the last minute to take an assessment.***

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**Week 1 Due Date: 5/28/2017**

Review all items listed under "Important Course Items" & "Help Forums & Resources"

Edit profile & Upload photo

Post in Intro discussion forum

Read Introduction lecture and Anatomical Planes

Fill out Contact & Final Exam Information

Take Intro **Quiz**

Read Material in Lectures: General Radiography

Take Radiology **Quiz**

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**Week 2 Due Date: 6/4/2017**

Read Material in Lectures: Fluoroscopy

Take Fluoroscopy **Quiz**

**Take TEST #1 Timed (20 min) Covers all material to date**

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**Week 3 Due Date: 6/11/2017**

Read Material in Lectures: Sonography

Take Sonography **Quiz**

Read Material in Lectures: Computed Tomography

Take CT **Quiz**

**\*ATTENTION SONOGRAPHY STUDENTS\***students who are pursuing an education in sonography need to review the DMS Fact Sheet located on the JC Health Careers website. An acknowledgment of this document must be submitted to Student Services. For more information contact the Allied Health office

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Week 4 **Due Date: 6/18/2017**

**MIDTERM EXAMINATION Timed Exam (50 min) covers all material to date**

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Week 5 **Due Date: 6/25/2017**

Read Material in Lectures: Mammography

Take Mammography **Quiz**

Read Material in Lectures: Magnetic Resonance Imaging (MRI)

Take MRI **Quiz**

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Week 6 **Due Date: 7/2/2017**

Read Material in Lectures: Interventional Radiography/Angiography

Take Angiography **Quiz**

Read Material in Lecture: Cardiac Sonography

Take Echocardiography **Quiz**

**TEST #2 Timed (20min) Covers all material to date**

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Week 7 **Due Date: 7/9/2017**

Read Material in Lectures: Nuclear Medicine

Take Nuclear Medicine **Quiz**

Read Material in Lectures: Radiation Therapy

Take Radiation Therapy **Quiz**

**FINAL EXAM Timed (50 min) Covers all material**

**Fill out Course Evaluation (it is anonymous)**

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### **GRADING SYSTEM**

ALL TIMED ASSESSMENTS ARE ACCUMULATIVE. WEEKLY QUIZZES WILL COVER THE WEEKLY MATERIAL

**QUIZZES:** There will be 11 quizzes (one for each topic) that are not timed. Each quiz is worth 5pts (11@5=55pts.)

**TESTS:** There will be two *tests* (Test #1 and Test #2) administered. Each test is worth 20 points, will have a 20-minute time limit, and will cover everything up to the time of exam. 20 questions each. (2@20=40 pts.)

**MIDTERM EXAMINATION:** Students will be expected to identify specific imaging studies and topics presented in classes up to date. The midterm is between Test one and Test two. 50 questions, 50-minute time limit. (50 pts.)

**FINAL EXAM:** Students will be expected to identify and differentiate between a variety of diagnostic medical modalities and images. Students will be questioned on topics discussed in all segments of the class. 50 questions, 50-minute time limit. (100 pts.)

**YOU MUST COMPLETE ALL ASSESSMENTS BY THE DUE DATE! FAILURE TO DO SO WILL RESULT IN A ZERO SCORE FOR THAT ASSESSMENT. THERE WILL BE NO EXCEPTIONS! Do not wait until the last minute to take any quiz or test. All assessments rules:**

- **MUST** be completed by deadline using the most updated version of the recommended browser (Chrome or Firefox)
- **Pop up blocker must be off or set to allow pop ups from this site**
- **Do NOT** leave the quiz once you start it, if you do you will risk losing points

Total points: 245

GRADING/POINT SCALE (reference your total percentage from the gradebook to this scale)

95%-100% = 4.0

90%-94% = 3.5

85%-89% = 3.0

80%-84% = 2.5

75%-79% = 2.0

A 2.0 or "C" is a passing grade. Only courses with passing grades count toward graduation. Other colleges transfer in only courses with passing grades. Many financial aid sources, including most employers, require passing grades. Additionally, earning less than a 2.0 in a class results in not being able to participate in the next level of courses in a discipline which requires this course as a pre-requisite. If you attempt to register for the next course sequence and have not passed the pre-requisite course, you will be dropped from that class.

*Some revisions may be necessary during the course due to school policies, textbook issues, test issues, etc. Any change will be posted as a course announcement.*

**LECTURE:** The curricula of this course serves two objectives; to provide a basic literacy about diagnostic imaging procedures, and to deliver information that may lead the student to an informed choice regarding a career.

I have developed the following outline to be used to guide you through the objectives of this course. Be sure you have a good understanding of the following as it pertains to each modality. This is what you will be tested on from the lecture material! All items will not pertain to every modality.

## MODALITY/SUBSPECIALTY

### I. INTRODUCTION

a. pertinence to medical community

### II. HOW IT WORKS

a. energy used

b. instrumentation

c. how image is formed

d. imaging planes

### III. MOST FREQUENT EXAMINATIONS

a. the largest application for this modality

b. also include a brief description of lesser used studies

### IV. PREPARATIONS

- a. include all preps for all exams
- b. a brief description of why the prep is essential
- c. what exams cannot be performed the same day

#### V. A PATIENT'S PERSPECTIVE

- a. interview process
- b. what the exam will be like
- c. how long it will take

#### VI. SIDE EFFECTS

- a. radiation burden
- b. contrast reactions

#### VII. COST OF EXAMINATION

- a. include other additional costs

#### VIII. WHO PERFORMS THE EXAMINATIONS

- a. Technologist/additional training
- b. schooling
- c. licensure/registration

#### X. PROFESSIONAL/ETHICAL ISSUES

- a. what are the concerns of the profession
- b. patient issues

#### XI. FUTURE OF THE MODALITY.

- a. new technology

**Facilitator's Responsibilities:** to facilitate learning, provide and explain the necessary materials for each student to understand the assignments and develop course performance objectives to a near mastery level.

**Student's Responsibilities:** Students are expected to log in frequently and do required reading and assessments, as well as check announcements and emails. **It is required by the facilitator that all assessments be completed on time.** It is also the student's responsibility to have a secure internet connection for testing purposes. If the student's ISP kicks them off the internet during a test, the student will not be allowed to take the test again and will receive a zero for that test.

*"Actually, you don't need dedication or tenacity or discipline in order to achieve your goals. What you need is passion. If the prospect of having the result you desire doesn't light your heart on fire, it's time to take it off the list." Anonymous*

*To elevate, you must educate.*

#### **Academic Honesty**

Click link for full policy: <http://www.jccmi.edu/policies/Academics/Policies/1004.pdf>

#### **Policy Summary:**

Academic dishonesty is generally an instructional and teachable opportunity for faculty to guide students and for students to learn from their actions and/or behavior. The Academic Honesty policy provides guidance for determining the level and severity of academic dishonesty, establishes how to track and report violations, and defines consequences to students.

### **Definitions:**

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

Plagiarism is defined as the failure to give credit for the use of material from outside sources. Plagiarism includes but is not limited to:

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

Cheating is defined as obtaining answers/material from an outside source without authorization. Cheating includes, but is not limited to:

- Plagiarizing in any form
- Using notes/books/electronic material without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical
- Allowing your work to be submitted by others

### **Policy Statement:**

Faculty members who suspect a student of academic dishonesty may penalize the student by taking appropriate action up to and including assigning a failing grade for the paper, project, report, exam, or the course itself. Instructors must document all instances of academic dishonesty, beyond those of a minor nature, in writing to the Office of the Academic Deans using the attached form.

Proctored Testing. Students who are suspected of cheating during a course exam or during Course Placement will be questioned and reported to the appropriate faculty member or Dean of Students. The proctors are not to stop the exam but report the questionable behavior. As in other instances, the faculty member will determine the penalty and appropriate action. If the student is suspected of cheating on Course Placement, the Dean of Students is to be contacted and will determine the next steps.

Reporting. The Office of the Academic Deans will record and track students who have been reported for academic dishonesty. If the same student has a second incident, the Dean will enact sanctions appropriate to the level of infraction. The sanction will be selected in consultation with the involved faculty. The Dean can administer consequences up to and including suspension.

In the event of a dispute, all parties should follow the Student Complaints/Academic procedure as outlined in the JC Faculty Agreement. This policy is also presented in the Student Rights and Responsibilities Handbook.

### **Academic Student Complaint Process:**

Click link for full policy: <http://www.jccmi.edu/ombudsman/student-complaint-pro>