**FLORIDA VOCATIONAL INSTITUTE**

**Medical Assistant Online**

**SYLLABUS / LESSON PLAN**

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| **Daily/Weekly Lesson Plan Outline – 3 weeks / 30 Clock Hrs. / 30 Lab Hrs.** | | | | | |
| **COURSE TITLE** | | | | **Review Date:** | |
| **Medical Assistant** | | | | **01/04/2016** | |
| **CODE** | **SUBJECT** |  |  | **LEC HRS** | **LAB HRS** |
| **MAS 110** | **Diagnostic Imaging and X-Ray** | | | **30** | **30** |
| **COURSE DESCRIPTION:** This course prepare students to prep and perform limited X-Ray work on physical extremities and body region .Students will learn about machine maintenance, principal of use ,safety precautions and X-Ray procedures.  **Prerequisite: None**  **Required Resources:**  **Text Books*:*** *KINN”S The Medical Assistant, An applied Learning Approach. Barbara B. Proctor, Alexandra P. Adams. 12th Edition. Elsevier (Chapter 43, 50)*  *Other: handouts*  **Learning Resources Center materials are available**  **Instructional Methods:**  Lecture/Discussion  Audiovisual  **Mode of Delivery:**  Online synchronous / On campus  **Equipment/Technology/Software**  Utilization of power point presentations, media center websites, reference materials, and other technology as available  **Course objectives/Competencies:** At the end of the course, students will be able to:   * Describe the medical use of X-Rays * Describe the properties of X-Rays * Describe the structures and function of the Musculo-Skeletal System * Explain the effects of radiation * Describe the methods for radiation protection * Follow OSHA regulations regarding Radiology Department * Describe other Diagnostic Imaging procedures including MRI and CT scan * Deal with emergencies during a radiology procedure. | | | | | |
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|  | **Objectives to be covered** | **Lecture/ Labs** | **Method of Assessment** |
| **Week 1** |  |  |  |
| **Day 1** | Basic Principles of Radiography  Musculoskeletal System | Lecture:   1. Explaining the definition of Radiology 2. Describing the role of MA in Radiology Department 3. Defining of X-Ray 4. Explaining the discovery of X-Rays 5. Explaining the properties of the X-Rays 6. Reviewing Body Planes and Cavities   **Laboratory: (2hrs)**  Students will conduct a short research after lecture and then they will come out with the results. A group discussion of the information collected will follow (X-Rays properties) | Book Exercise |
| **Day 2** | Musculoskeletal System | Lecture:   1. Explaining the different types of muscles and the muscle function 2. Describing different muscular disorders. Muscular Dystrophy 3. Explaining the structure of the bones 4. Compact bone 5. Spongy bone 6. Characteristics of Long bones, irregular bone and short bones 7. Explaining the process of ossification 8. Describing Axial Skeleton and Appendicular Skeleton 9. Explaining the different types of body movements 10. Explaining the Joints   **Laboratory: (2hrs)**  Instructor will illustrate the skeleton and students will identify bones as the Instructor point at them. (Camera will be on during the entire activity) | Questions |
| **Day3** | Musculoskeletal disorders  Basic Principles of Radiology | Lecture:   1. Explaining Musculoskeletal diseases and disorders 2. Explaining Spinal Column Disorders: Scoliosis, Lordosis, Kyphosis 3. Describing the classification of Body Structures: Radiolucent and Radiopaque 4. Explaining Radiography Positioning   **Laboratory**: **(2hrs**)  Online students presentation of a project related to Spinal Column disorders | Questions  Project |
| **Day 4** | Presentation: Breast Cancer.  Positioning  **On Campus** | **Laboratory**:   1. Presentation about Breast Cancer Including incidence 2. Statistics 3. Male breast cancer 4. Female breast cancer 5. Signs and symptoms 6. Diagnosis 7. Treatment 8. Prognosis 9. Radiographic positioning demonstration by Instructor and then practiced by the students   (**5hrs)** | Presentation  Laboratory Activity |
| **Week 2** |  |  |  |
| **Day 1** | Diagnosis through Radiographic Examination | Lecture:   1. Giving examples of disorders diagnosed by Radiographic Procedures: Breast Cancer, Pneumonia, cardiomegaly, Fractures. 2. Explaining the use of Contrast Medium 3. Describing radiographic Procedures Using Contrast Medium   **Laboratory**: **(3hrs)**  Students requested to collect statistics about breast cancer for few minutes and then discussing results for the rest of the activity scheduled time | Questions  Laboratory |
| **Day 2** | Production of Radiation  Effects of Radiation | Lecture:   1. Describing Radiographic Equipment 2. Explaining the Control Console 3. Describing the Production of Radiation: 4. Explaining the different types of Radiation: Primary Radiation, Attenuated Radiation, Absorbed Radiation, Remnant or Useful Radiation, Scattered Radiation 5. Describing Radio-Sensitivity of body cells 6. Explaining the Biological Effect of radiation 7. Explaining the Molecular Effect of radiation   **Laboratory: (3hrs)**  Synchronous activity where students inter act showing pictures collected by research concerning radiosensitive body structures, biological effects of radiation. | Questions  Activity |
| **Day 3** | Effects of Radiation  Occupational Exposure | Lecture:   1. Explaining: 2. Cellular effects of Radiation 3. Organic effects of Radiation 4. Somatic Effect of Radiation 5. Genetic Effects of Radiation 6. Occupational Exposure 7. Personnel Safety 8. Personnel Monitoring 9. Effective Dose Equivalent Limits 10. Occupational Protection during pregnancy 11. Patient Protection: Shielding 12. Beam restriction: Filtering, Collimator 13. Prime or exposure factors; KVP, mA, SID 14. Maximum Permissible Dose. 15. Heat Units   **Laboratory: (3hrs)**  Online Presentation: Acute Radiation Syndrome | Presentation |
| **Day4** | Diagnostic Imaging Modalities  **On Campus** | Lecture:   1. Describing other Diagnostic Imaging tests such as Fluoroscopy, CT scans, Magnetic Resonance Imaging, Sonography, and Nuclear Medicine 2. Explaining the role of the Medical Assistant in diagnostic imaging 3. Explaining the patient preparation for radiographic examination 4. Giving examples of diagnostic procedures and Patient preparation.   **Laboratory: (2hrs)**  Simulation: Giving instructions to patients for a diagnostic test and patient preparation as needed. Patient positioning  Quiz | Quiz  Laboratory |
| **Week 3** |  |  |  |
| **Day 1** | Transferring patients to radiology department. | Lecture:   1. Checking Hospital Equipment for safety 2. Describing the examination of transfer equipment 3. Assessing the patient’s condition 4. Explaining how to give instructions to the patient, use of good body mechanics 5. Explaining different methods of patient transfer | Questions |
| **Day 2** | Foreign-Body Localization | Lecture:   1. Describing types of Foreign bodies 2. Radiographing for foreign body 3. localization 4. Explaining how to verify patient identification and the radiographic requisition | Questions |
| **Day 3** | Dealing with emergencies  Study Guide | Lecture:   1. Explaining the proper action in case of 2. Fainting 3. Chills 4. Convulsions 5. Vomiting 6. Activity: 7. Study Guide 8. Discussion of guide answers   **Laboratory: (3hrs)**  Answering and discussing the questions of the study guide for the final test | Questions  Study Guide |
| **Day 4** | Final Test  **On Campus** | Final test  Analysis of test results  Review MA board test  (**5hrs)** | Test |

**Qualitative Measure of Satisfactory Academic Progress (SAP)**

The qualitative element used to communicate Satisfactory Academic progress is the institutions published grading scale. Theory is evaluated after each unit of study. Students must maintain a cumulative theory grade average of at least 70% (C) at the end of each progress report period. Students must make up failed or missed tests and incomplete assignments. Practical skills performances are counted toward course completion. If performance does not meet satisfactory academic requirements, demonstration of the skills must be repeated until a satisfactory level of performance is achieved.

The school’s satisfactory academic progress policies must contain a Pace (quantitative) measure. The policy defines the pace at which our students must progress to ensure educational program completion within the maximum timeframe of 150%. For Florida Vocational Institute the maximum time frame is no longer than 150% of the published length of the educational programs as measured in the cumulative number of clock hours the student is required to complete.

The school uses the following grading scale:

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| **Letter** | **Number** | **Grade Point** |
| **A** | 100 - 90% | 4.0 |
| **B** | 89 - 80% | 3.0 |
| **C** | 79 - 70% | 2.0 |
| **D** | 69 - 60% | 1.0 |
| **F** | Below 60% | 0.0 |
| **I** | Incomplete | Withdraw / No Grade |

*Not Used in GPA computation: I = Incomplete; W = Withdraw; P = Pass; NP = Not Pass*

Pass - Satisfactory completion of non-graded Externship.

Fail - Unsatisfactory completion of non-graded Externship.

The students who have failed to meet the Qualitative standards are placed first on Financial Aid Warning; if no improvement over the next payment period, the student will be placed on academic suspension, with a loss of Title IV, HEA fund and they appeal the decision. Please review the appeal and probation requirements state in this policy for guidance on this process. The Director of Financial Aid in coordination with the Office of Academic Affairs monitors qualitative progress.

**Final grade calculation criteria**

| **Course Requirements** | **Weight (Points)** |
| --- | --- |
| 4 quizzes ( 40 points each) | 120 |
| Mid-Term Test | 100 |
| Projects/Presentation/Lab | 100 |
| Final Exam | 100 |
| **Total** | **100%** |

 420=100%

**Attendance**

Regular attendance is required of all students. Promptness and dependability are qualities important in all occupations. Students should begin to develop these qualities and habits the day the students begin their training.

Attendance is taken daily in class by the instructor and submitted to the Registrar before the end of each class day. Students are expected to attend all scheduled class meetings and to arrive on time.  Attendance records will be maintained by the Registrar and will be part of the student’s permanent academic record.

Students with chronic absences in excess of 20% of the scheduled hours for a course will receive a failing grade for the course. Early departures and tardies will be calculated in quarter hour increments. A student will be withdrawn from any course or program if he/she does not attend within a 14 consecutive calendar day period (excluding school holidays or breaks, no longer than 5 consecutive days).  All students must complete a 100% of all externship or clinical hours within the assigned grading period.

Students are responsible for making up assignments and work missed as a result of absence at the discretion of the instructor. The instructor may assign additional outside make-up work to be completed for each absence. Students enrolled in clock hour programs will be required to attend make up classes for any missed hours scheduled by the instructor if the students has missed more than **10%** of scheduled hours.  Students enrolled in a clock hour program must attend a minimum of **85 %** of the scheduled program hours in order to graduate.

Attendance is reviewed by the instructors, program directors and the Director of Education on a weekly basis with a focus on those who have been absent for **10%** of the scheduled course hours. Students will be notified by phone, text or e-mail if their attendance is danger of violating attendance requirements.

Students may appeal the school’s actions related to the attendance policy if the absence was due to extenuating or mitigating circumstances, for example illness, military duty, death of a family member, court appearances or jury duty. The student should first discuss the issue with his or her instructor. Appeals must be received within **seven (7)** calendar days of the student being notified of the decision that he or she wishes to appeal.

Students are expected to inform faculty in advance of any pending dates where a student may be absent and should make every effort to attend the alternate class in the morning or evening. Students are only allowed to miss up to 15% of their entire program hours, anything in excess of the 15% needs to be made up and could impact the student final course grade. It is the responsibility of the student to make up work or time missed.

**MAKE –UP HOURS/TIME**

Students enrolled in clock hour programs will be required to attend make up classes for any missed clock hours scheduled if the students has missed more than 15% of scheduled hours.  Students enrolled in a clock hour program must attend a minimum of 85 % of the scheduled program hours in order to graduate. Make-up hours for class must be made up during alternative schedules, including daytime, evening or a Friday schedule. Special circumstances will be managed by the Program Director with approval from Campus Vice President.

If absence at any time during the program exceeds **more than 10%,** the student will be placed on a mandatory prescribed school schedule which may include attending Friday scheduled sessions.

**MAKE-UP CLASS WORK**

Arrangements to make-up assignments, project, test, and homework missed as a result of absence must be made with the approval of the instructor. Make-up work must be completed within ten (10) calendar days after the end of the module.

**DRESS CODE**

1. While on campus and in lectures, students must wear uniform and footwear appropriate for the college learning environment. The student should demonstrate appropriate hygiene to avoid offensive odor.
2. In the student laboratory, appropriate clothing must be worn at all designated times as per the specific course syllabus. Close-toed shoes must be worn in the lab at all times.
3. During clinical rotation, the student must adhere to the dress code of the facility to which he/she is assigned. In addition to the facility’s dress code, or if the dress code is optional, the following rules apply:
   1. Students must comply with number 2 above. If the facility requires the student to wear a scrub uniform, it must be school’s uniform. The student is responsible for purchasing the correct scrub uniform. The student must wear their Student ID batch at all times.
   2. Students must not wear clothing made of denim material of any color. (No jeans or JEAN skirts, etc.)
   3. Students must not wear under t-shirts, unless they are of one color with no words, letters, slogans, graphics, etc., of any kind
   4. Students must wear closed-toe shoes (no sandals or canvas shoes) with socks or hosiery.
   5. While attending practicum rotations, student’s hair must be clean, neat and of a normal hair color. Male students must either shave regularly, or if they choose to wear a mustache and/or beard, they must keep them clean and well groomed.
   6. Before attending practicum rotation, students must bathe regularly to avoid offensive odor. In addition, students must refrain from use of cologne/perfume/aftershave lotion, or makeup.
   7. Keep fingernails clean and at a reasonable length.
   8. Students not conforming to the dress code of the facility or the program may be sent home from the practicum site at the preceptor’s or course instructor’s discretion and attendance won’t be granted.

**Teaching Methodology**

Lectures, study cases, class discussions, use of audio-visual aids, experiential learning exercises. Main objective is to provide you with an online environment that is interesting, stimulating, and informative.

Please review the FVI catalogue as it contains essential information regarding guidelines relevant to all courses at FVI and additional information on the standards for acceptable netiquette important for online courses.

**Technical Requirements & Skills**

One of the greatest barriers to taking an online course is a lack of basic computer literacy. By computer literacy we mean being able to manage and organize computer files efficiently, and learning to use your computer's operating system and software quickly and easily. Keep in mind that this is not a computer literacy course; but students enrolled in online courses are expected to have moderate proficiency using a computer. Please go to the "[evolve.elsevier.com](http://online.fiu.edu/futurestudents/whatsrequired)" to find out more information on this subject.

**Course Prerequisites**

There are no prerequisites for this course. However,

         Students must be fluent in English

         Students taking this course must be proficient in:

* Internet Browsing
* Internet Research
* Internet test taking
* MS Word
* MS Excel
* MS PowerPoint

**Expectations Of This Course**

This is not a fully online course, meaning that a portion of the course work will be conducted online, and student will attend class on campus 5 hours per week. Expectations for performance in this type of online courses are the same as traditional courses; in fact, the online courses require a degree of self-motivation, self-discipline, and technology skills that can make them more demanding for students.

The online courses are not independent study courses. You will be expected to interact online with the professor and your fellow students; to do assignments and to meet deadlines.

**Students are expected to:**

         **Review the how to get started information** located in the course content

         **Introduce yourself to the class** during the first week by posting a self-introduction in the appropriate discussion forum

         **Take the practice quiz** to ensure that your computer is compatible with Blackboard

         **Interact** online with instructor/s and peers

         **Review** and follow the course calendar

You will be expected to:

* fulfill course reading requirements; complete quizzes online
* View video cases/read case histories and post relevant comments in answer to the questions posted by me in the corresponding Discussion Forums
* Complete and submit assignments and to meet deadlines
* Complete both midterm and final exams as specified.

**Course Detail**

**Course Communication**

1) Email

(2) Telephone

(3) Office visits by appointment

(4) Fax.

Preferred method of communication is through **Email**. Proper email etiquette requires that all correspondences should be composed by the student, not forwarded. If necessary, Instructor will be available to personally meet with you on campus **by appointment**. Contact your Instructor via Email to set up an appointment.  
Our policy is to return your email or phone call within 24 hours.

**Policies And Procedures**

The WEEKLY MODULES contain all the modules for the course, module 1 through module 15. Each module contains the chapter(s) for that module. Click on the module of your choice, and this opens up the content of the module, i.e. typically specific information on a chapter(s). The information includes learning objectives for the chapter; important terms, concepts and explanations thereof; significant tables, charts, and figures; video clips and pictures. These modules are like small electronic versions of the textbook, and are useful in learning the course material.  
  
**SYLLABUS**  
Clicking on the SYLLABUS opens up the entire syllabus to you. Read the syllabus many times, carefully, and pay particular attention to the sections about the quizzes, mid-term and final exams, optional points, the calendar times for the aforementioned, and so on.

**Read and study the syllabus and all course-related documents carefully. This will help you greatly throughout this course.**  
  
**ANNOUNCEMENTS**

Instructor posts announcements here **(evolve.elsevier.com)**. It is a good practice to check ANNOUNCEMENTS about once every day or so.  
  
**FVI ONLINE POLICIES AND PROCEDURES**  
Click on this section, read it, and become familiar with it.  
  
**MAIL**  
Communicate with the Instructor primarily through Email

**DISCUSSION (FORUM)**  
This is a good section for discussing a variety of topics with your classmates (e.g., chapter topics, questions, group work, cases, Internet Exercises). You can learn new ideas this way.  
  
**ASSESSMENTS**  
This section is where you click into to take your quizzes, mid-term exam and final exam.  
  
**SYLLABUS COURSE CALENDAR**  
The COURSE CALENDAR shows the days of the month and the times that the quizzes and exams will be given. It may also show the dates when projects, cases, and Internet Exercises (if required) are due. Check the CALENDAR regularly. It is a good practice to make a note in your diary about the dates for your quizzes, exams, projects, etc. and check your diary ahead of time about these important dates and responsibilities, so you will not miss or forget them.  
  
**MY GRADES**  
The final grade is based on i- quizzes; ii- assignments/participation; iii- Lab modules; and iv- tests. The distribution and format of grading are given below.

**Tests:** Tests will contribute 60% of your total grade (each test is worth 15%). There is 2 tests for this course; the 2nd or final is “optional” for certain students (see below). The questions may include multiple choice, fill-in-the-blank, short essays, true or false, matching, etc. Questions are composed from lecture notes, textbook and assignments. Test dates will be announced at least a week in advance and make plans to be there on test dates**. If given permission to make up a test (see below, under exam make up conditions), this could be of a different format from the regular test and it must be completed WITHIN ONE WEEK of the original test date or otherwise the test score will be a zero.** Students failing an exam are encouraged to come during my office hours to discuss their study strategies.

**Every student is responsible for obtaining their grades.** Failure quizzes; assignments / participation; Lab modules; and tests should be discussed with the instructor

**Assignments/Participation** will vary (internet searches, postings to discussion board, etc). **Assignments must be turned in by the due date as there will be no deadline extensions**. **There won’t be any make up for missed assignments. There are Assignments in this module and they will be MANDATORY**

**Project: Must be turned in by the due date as there will be no deadline extensions. There are 2 projects in this module and they will be MANDATORY**

**ONLINE PRACTICE QUIZ**  
In order to mitigate any issues with your computer and online assessments, it is very important that you take the "Practice Quiz" from each computer you will be using to take your graded quizzes and exams. It is your responsibility to make sure your computer meets the minimum [hardware requirements](http://online.fiu.edu/futurestudents/whatsrequired)

Click on MY GRADES to be informed about your quiz/exam grades.

*Assessments in this course are not compatible with mobile devices and should not be taken through a mobile phone or a tablet. If you need further assistance please contact FVI online support Service*

This Practice Quiz can be taken as many times as you'd like. It is for you own benefit - these quiz grades are not part of your course grade.  
  
**CHAPTER QUIZZES**  
To keep you up-to-date with the textbook reading assignments, **four (4) quizzes will be given.** The purpose of each quiz is to assess your knowledge of the assigned textbook chapters.  
  
These quizzes will be administered in a multiple-choice format. Each quiz will have 50 multiple choice questions. Quizzes are not a group exercise. Group participation and/or cheating will not be tolerated.

**Absolutely no make-up quiz is allowed.**  
Each quiz will have 30 multiple-choice questions, with a maximum time limit of 110 minutes (time may vary). **You will be able to see your quiz grade immediately after submitting your quiz. However, you will be able to view your entire quiz, the questions which you got wrong, and the correct answers, during the 24-hr window from Monday noon to Tuesday noon.** Use the “MY GRADES” link for such “views” of the quizzes and the midterm. Now, select the name of the assessment and then click on your grade (e.g., 45/50) to see your entire quiz/exam. Use that time wisely.  
  
   
**Final Exam:** There will be a non-cumulative final exam on the campus assigned date at the end of the module. Students that have an A average do not have to take the final exam. All other students have to take the final exam.

**NOTE**: The quizzes and tests are not easy. I suggest you study hard for them and prepare. (Understand the concepts, definitions, examples and illustrations. Some questions are theoretical, conceptual and/or practical). The textbook website may have practice questions for each chapter. It is a good idea to set aside some time to do these practice questions. Some of these questions or their likeness may appear on your quizzes and exams. This good study habit tends to improve your grades.  
  
Before you take a quiz, please make sure you carefully read the "important notice regarding quiz taking".  
  
**ATTENTION**: Go to the resources section and click on BEFORE YOU BEGIN. It is the app that we highly recommend you read. It is your responsibility to ensure you are set up correctly to take quizzes. Taking the PRACTICE QUIZ can help you work out any issues prior to taking your first quiz. Remember that if you have technical issues of this nature, you will not be able to retake a quiz or test. The ONLY valid reason is if the system was down.

**Server Maintenance Schedule**

In an effort to provide online students with reliable and secure access to the online learning technology resources, Evolve Online has standard maintenance periods to perform scheduled maintenance and system upgrades. FVI Online courses will be *unavailable* during the established maintenance schedule. System maintenance is performed weekly between the hours of 4:00 AM through 5:00 AM on Saturday. **So do not try to take quizzes/exams or access course materials during this 1-hour period.** We thank you for your patience and we apologize in advance for any inconvenience that this may cause.

**Final Comments**

    While taking a quiz or exam, click on “save” for each answer. Blackboard also automatically saves the answers while you are taking the assessment. You can always go back and change your answer if you wish to. If your screen freezes up, save your answers and log out. Log in again shortly.

     Dates and course content on the syllabus are subject to change by the professor. Make sure to check postings under ANNOUNCEMENTS.

     Please communicate with the Instructor using Email.

     IF YOU HAVE TECHNICAL ISSUES WITH YOUR COMPUTER OR ACCESSING MATERIALS ON-LINE, PLEASE CONTACT THE FVI ON-LINE LEARNING HELP DESK (305) 665-1911,or Online.