El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	**Diagnostic Medical Sonography**
COURSE RUBRIC AND NUMBER	**DMSO 2367**
COURSE TITLE	**Practicum- (or Field Experience)- Diagnostic Medical Sonography/Sonographer and Ultrasound Technician II**
COURSE CREDIT HOURS	**3 0 : 24** **Credits Lec Lab**

I. Catalog Description

Provides practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. A grade of "C" or better is required in this course to take the next course. **Prerequisite: DMSO2266. (0:24). Professional Practice Insurance required.**

II. Course Objectives

Upon satisfactory completion of this unit, the student will be able to:

A. Unit I. Abdominal Aorta

1. Verify patient identity.
2. Determine whether the patient has been prepped correctly for the examination to be performed.
3. Select the proper transducer for the examination to be performed.
4. Utilize correct anatomical landmarks and scanning references when performing and labeling a study.
5. Demonstrate the area of interest by utilizing correct scanning planes and paths.
6. Adjust gain controls for optimum display.
7. Include views of abdominal aorta extending from the patient's diaphragm up to (including) the iliac confluence.
8. Demonstrate the abdominal aorta in longitudinal (sagittal) and transverse planes.
9. Correctly measure the dimensions of the aorta.
10. Determine if any of the following conditions exist:
    a. Saccular Aneurysm
    b. Fusiform Aneurysm
    c. Dissecting Aneurysm
    d. Atheromatous Disease
11. Position the patient correctly for examination of the abdominal aorta.
12. Perform the examination following standard operating procedures.
13. Evaluate other abdominal vessels if an abdominal aorta aneurysm is found upon examination.
14. Identify the signs and symptoms of an abdominal aortic aneurysm.

B. Unit II. Liver, Gall Bladder, and Biliary Tree

1. Verify patient identity.
2. Determine whether the patient has been prepped correctly for the examination to be performed.
3. Select the proper transducer for the examination to be performed.
4. Utilize correct anatomical landmarks and scanning references when performing and labeling a study.
5. Demonstrate the area of interest by utilizing correct scanning planes and paths.
6. Adjust gain controls for optimum display.
7. Perform the examination following standard operating procedures.
8. Demonstrate the Gall Bladder utilizing the following patient positions:
   a. Supine
   b. Left Posterior Oblique
   c. Right Lateral Decubitus
9. Demonstrate the following anatomical areas in multiple longitudinal (sagittal) and transverse planes [see handout on require images]:
   a. Left Lobe of the Liver
   b. Right Lobe of the Liver
   c. Gall Bladder
   d. "Dome" of the Liver
10. Display the following anatomical structures according to the standard operating procedures of the assigned clinic.
    a. Sagittal Liver Multiple Views (See Objective 8)
    b. Transverse Liver Multiple Views (See Objective 8)
    c. Common Duct/Portal Vein with measurement
    d. Hepatic Veins
    e. Gall Bladder (See Objective 7)
    f. Biliary Tree
11. Examine the Liver, Gall Bladder and Biliary Tree for the following conditions:
    a. Capillary Hemangioma
    b. Hamangioma
    c. Lymphoma
    d. Hematoma
    e. Echinococcal Cyst
    f. Choledocholithiasis
    g. Cholelithiasis
    h. Cholesterosis (or any other polyp masses of the GB)
    i. Phrygian Cap
    j. Cholecystitis
    k. Choledochal Cyst
    l. Biliary Atresia
    m. Cirrhosis
    n. Liver Abscess
    o. Ascites
    p. Pleural Effusion
    q. Collaterals
    r. Portal Hypertension
    s. Dilated Intrahepatic Ducts
12. Use the following laboratory tests to aid in the examination of the Liver, Gall Bladder and Biliary Tree:
    a. Serum Enzymes
       1. SGOT
       2. SGPT
       3. LDH
       4. Alk, Phos.

b. Indirect Bilirubin
c. Direct Bilirubin
d. RBC/WBC
e. Alpha-fetoprotein (AFP)

C. Unit III. Pancreas

1. Verify patient identity.
2. Determine whether the patient has been prepped correctly for the examination to be performed.
3. Select the proper transducer for the examination to be performed.
4. Utilize correct anatomical landmarks and scanning references when performing and labeling a study.
5. Demonstrate the area of interest by utilizing correct scanning planes and paths.
6. Adjust gain controls for optimum display.
7. Perform the examination following standard operating procedures.
8. Demonstrate the pancreas sagittally and transversely.
9. Identify the splenic vein, stomach and pancreatic duct.
10. Examine the pancreas for the following conditions:
    a. Pancreatic Pseudocyst
    b. Pancreatitis
    c. Pancreatic Carcinoma
    d. Pancreatic Ascites
    e. Common Bile Duct Obstruction
11. Use the following laboratory tests to aid in the examination of the pancreas:
    a. Serum Amylase
    b. Urinary Amylase
12. Discuss methods that would aid in the demonstration of the pancreas in a patient with excess gas.

D. Unit IV. Spleen

1. Verify patient identity.
2. Determine whether the patient has been prepared correctly for the examination to be performed.
3. Select the proper transducer for the examination to be performed.
4. Utilize correct anatomical landmarks and scanning references when performing and labeling a study.
5. Demonstrate the interest by utilizing correct scanning planes and paths.
6. Adjust gain controls for optimum display.
7. Perform the examination following standard operating procedures.
8. Demonstrate the spleen sagittally and transversely.
9. Examine the spleen and determine if the following conditions are present:
    a. Splenomegaly
    b. Splenic Cysts
    c. Hematoma
10. Identify the splenic hilum.

E. Unit V. Renals and Adrenals

1. Identify patient identity.
2. Determine whether the patient has been prepped correctly for the examination to be performed.
3. Select the proper transducer for the examination to be performed.
4. Utilize correct anatomical landmarks and scanning references when performing and labeling a study.

5. Demonstrate the area of interest by utilizing correct scanning planes and paths.
6. Adjust gain controls for optimum display.
7. Perform the examination following standard operating procedures.
8. Demonstrate the kidneys transversely and along their long axis.
9. Define the technique used to demonstrate the adrenal glands and when the adrenal glands would be the easiest to identify.
10. Examine the renals and adrenals to determine if any of the following conditions are present:
    a. Renal Calculi
    b. Hydronephrosis
    c. Renal Cysts
    d. Complex Renal Masses
    e. Solid Renal Masses
    f. Duplicated Collecting System
    g. "Horseshoe" kidney
    h. Hematoma
    i. End-Stage Renal Disease
    j. Renal Abscess
    k. Ectopic Kidney
    l. Adrenal Mass (Carcinoma)
11. Determine, if mass is found, whether that mass originates from the kidney or the adrenal gland.

F. Unit VI. Obstetrics/Gynecology

The student is required to perform examinations in the areas of Obstetrics and Gynecology throughout the remaining semesters. Performance evaluations will be administered to assure that scanning skills and techniques are retained. Students should be observing and performing thyroid and neurosonologic examinations under direct supervision.

III. THECB Learning Outcomes (WECM)

As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

IV. Evaluation

A. Evaluation Methods:

1. Monthly Hospital Performance Evaluation – This evaluation will be completed by hospital personnel. Either the clinical instructor or the supervising staff technologist, under the supervision of the clinical instructor, will complete this evaluation on a monthly basis.
2. Hospital Performance Evaluation By College Instructors – This evaluation will be completed by the EPCC DMSO Program Instructors.
3. Bi-Weekly Clinical Evaluations – A minimum of seven (7) clinical performance evaluations will be conducted on a bi-weekly basis by college instructors. Evaluations will determine if the student has obtained the skills necessary to perform Obstetric & Gynecologic Ultrasound examinations.
4. Final Evaluation – A written exam will be administered during the last two (2) weeks of the semester in the areas of Obstetrics, Gynecology and Abdominal anatomy, terms and concepts.

B. Grading Scale

100 – 96 = A
95 – 91 = B
90 – 86 = C
85 – 81 = D
80 – 0 = F

No **grade of less** than "C" will be considered as successful completion of a professionally related course. **Grades .5 or higher** will be rounded off to the next whole number grade.

C. Final Grade Determination

Bi-Weekly Performance Evaluations	50% of final grade
Instructor/Hospital Evaluation	30% of final grade
Final Evaluation	20% of final grade
	100%

D. Remediation

Failure to achieve a minimum competency of 85% on bi-weekly evaluations will result in re-evaluation, using the same examination. Failure in the re-evaluation will result in the student being recycled to the college laboratory for additional practice and remedial study. Following remediation, the student will be re-evaluated in the clinic on that examination. Failure in this examination will result in failure of the course.

E. Attendance

1. All students are required to sign an attendance sheet in Clinic. Failure to do so will indicate an unexcused absence.
2. During this semester, no absent days are allotted all absences or partial absences must be made up.
3. If a student is absent on an assigned clinical day, that student is REQUIRED to call both the clinical instructor and the instructor of record at least (30) thirty minutes before the student is scheduled to be present. Failure to do so will indicate an UNEXCUSED ABSENCE.
4. Three (3) UNEXCUSED absences from the clinic will be cause for dismissal from the DMSO Program.
5. If a student, due to time limitations, is unable to complete the required number of hours for that semester, that student will be given an incomplete (I) until the time is made up. If the time is not made up, the incomplete will change to a grade of "F".
6. Students are required to remain at the clinical site during the entire assigned period (with the exception of lunches). In the event that all cases have been completed, the student is encouraged to study within the department or the HOSPITAL LIBRARY. Students not in their assigned area will be given a written counseling statement. An accumulation of two (2) counseling statements within the 13 month program period will result in student dismissal.

F. Tardiness

1. Students are expected to report to their assigned areas on time. Tardiness will not be tolerated.
2. Excessive or continued tardiness may be cause for dismissal from the DMSO Program.
3. The amount of time that the student is late must be made up the same day.

G. Guidelines for Patient-Student Safety

Students who fail to abide by the "Guidelines for Patient and Student Safety" will be suspended from the clinic for a period of time to be determined by the Program Coordinator. (See attachment "Guidelines for Patient and Student Safety")

H. Name Tags and El Paso Community College patches must be worn by students in the clinics at all times.

I. TB Tine Test

Evidence of an updated TB Tine test must be submitted to a DMSO instructor for placement in that student's file no later than one (1) week after the beginning of the semester. Failure to do so will result in that student's suspension from the clinical facility until the above requirement is met. All hours missed must be made up before the end of the semester.

J. Clinical Affiliation Dress Code

Students who are not in compliance with the "Clinical Affiliation Dress Code" will be placed on clinical probation for a time to be determined by the DMSO Program Coordinator. ("See attached Clinical Affiliation Dress Code").

V. Disability Statement (Americans with Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.