

AE Practicum II // Clinical Capstone

Class

DSAE 2461

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. (O-0-384 / Lecture – Lab – Clinical Contact Hours.)

Course Learning Objectives

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.

Required Textbooks

Textbook of Clinical Echocardiography, 6th edition Catherine Otto / Elsevier ISBN: 978-0323480482

Evaluation Standards

Clinical Requirement Objectives (Objectives I-V)

1. Obtain PLAX view and make measurements in 2D to get EF%
 1. Obtain M-mode of AO, MV, LV and make measurements of each.
 2. Obtain ascending AO and make 2D measurement.
 3. Obtain RVOT
 4. Obtain RVIT
 5. Able to use color, CW, and PW Doppler in proper places
 6. Obtain a moderator band if possible.
2. Know the difference between pericardial effusion and pleural effusion.
3. Obtain PSAX and sweep from apex to AO, and obtain measurements needed
4. Obtain Apical 4 chamber
 1. Interrogate MV, use color, PW, CW Doppler to obtain proper measurements
 2. Obtain an MR envelope.
 3. Obtain an MV stenosis or be able to show how to prove.
5. Obtain a tissue Doppler.
6. Interrogate AOv using color, PW, and CW Doppler.
 1. Get AOv area
 2. Show AOv stenosis
 3. Obtain an AI
 4. Prove the absence of SAM
7. Interrogate TV using color, PW, and CW Doppler.
 1. Obtain a TR envelope
 2. Measure a Pulmonary pressure

8. Obtain Subcostal 4 chamber view and check for a PFO

1. Show absence of ASD.
2. Show amount of fluid around heart.

9. Obtain Subcostal short and show 3 views

1. Use color, PW, and CW Doppler to make flow measurements in correct view.
2. Obtain descending AO, and prove normal.
3. Obtain IVC, and Hepatic vein, verify flow.

10. Obtain Suprasternal, using color, PW, and CW Doppler disprove stenosis.

11. Use Pedoff probe and obtain 3 AOv measurements.

After completing this course, the student should become proficient in the above competencies.

2. Clinical Evaluations (Objectives I-V) 70%

The assigned clinical instructors will complete a Clinical Evaluation and a Clinical Competency grading sheet of each student at the midpoint and at the end of the course.

3. Final Exam (Objectives I-V) 30%

Scan assessment exam as determined by instructor.

4. Required paperwork

- Student Evaluation of Clinical Instructor
- Student Evaluation of Clinical Affiliate Site
- Cardiologist Contact form: All students must complete 5 cardiologist contacts
- Clinical Education Hours completed (Attendance forms)
- Clinical Log Book and Exam Totals

Grading Standards:

- A 92-100%
- B 85-91%
- C 78-84%
- F <78%

Notes: You must obtain an 85% or higher grade to pass the clinical and the scanning lab competencies and an overall course grade of 78% or higher to pass the course.

Course Progression

Demonstrate and describe the operation of the ultrasound machine for the

following: (F1 -5, 7-12, 14, 16, C3, 5, 11-16, 18, 19, 20)

1. Image and Doppler controls
2. Calculation packages
3. Patient data input
4. Report controls
5. Media device controls.

II. Prepare patient for the echocardiography examination and analyze the information

obtained for exams performed (F1 -5, 7-12, 14, 16, C3, 5, 11-16, 18, 19, 20)

1. 2-Dimensional views
2. Doppler modes (PW, CW, Color)
3. M-mode
4. ECG equipment.

III. Acquire and label images and waveforms (F1 -5, 7-12, 14, 16, C3, 5, 11-16, 18, 19, 20)

1. 2-Dimensional anatomy
2. 2-D standard views
3. Doppler (PW/CW/color) tracings
4. M-mode recordings.

IV. Describe echocardiography laboratory practices to include the following:

(F1 -5, 7-12, 14, 16, C3, 5, 11-16, 18, 19, 20)

1. Scheduling and patient preparation
2. Recording images
3. Data storage and filing
4. Exam reporting and technical writing of sonographer reports
5. Interpretation procedures
6. Quality assurance.

V. Demonstrate knowledge of safety and infection control to include the following:

(F1 -5, 7-12, 14, 16, C3, 5, 11-16, 18, 19, 20)

1. Transporting patients
2. Equipment maintenance and safety
3. Ergonomic scanning techniques
4. Infection control guidelines
5. All department regulations and procedures
6. Patient confidentiality, methods of identification, and patient interactions.

Absences

Attendance is the biggest predictor of your success. Attendance at every class is expected. You will be allowed to miss 2 class days (except for test days) and/or two lab days (if applicable) without it adversely affecting your grade. Every absence over the allotted days will result in your final grade being reduced by one letter grade. Three tardies of 1-14 minutes each count as one day absent. If you are more than 15 minutes late to lecture or lab it will constitute an absence. You are required to notify the instructor prior to any absence. Failure to do so will result in an unexcused absence.

An exam missed because of an excused absence must be made up the day that you return to class. An exam missed because of an unexcused absence may not be made up, and you will receive a grade of zero (0) for that exam. Pop quizzes may not be made up under any circumstances.

All class and clinical assignments are due on their appointed dates at the designated time. Failure to submit an assignment on time will result in a grade of "0" to be given for the assignment. Although a grade of "0" will be given, the individual instructor reserves the right to ask for completion of the assignment. Failure to comply with request will result in incompleteness of the course.

Cell phones shall be stored on silent in your backpack, handbag, or purse. Cell phones may be accessed during breaks.

A student shall retain all rights to work created as part of instruction or using College District technology resources.

Disabilities

ADA Statement:

Any student with a documented disability (e.g. learning, psychiatric, vision, hearing, etc.) may contact the Office on the Weatherford College Weatherford Campus to request reasonable accommodations. *Phone:* 817-598-6350
Office Location: Office Number 118 in the Student Services Building, upper floor. *Physical Address:* Weatherford College 225 College Park Drive Weatherford, TX.

Academic Integrity

Academic Integrity is fundamental to the educational mission of Weatherford College, and the College expects its students to maintain high standards of personal and scholarly conduct. Academic dishonesty of any kind will not be tolerated. Academic dishonesty includes, but is not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials including unauthorized use of Generative AI. Departments may adopt discipline specific guidelines on Generative AI usage approved by the instructional dean. Any student who is demonstrated to have engaged in any of these activities will be subject to immediate disciplinary action in accordance with institutional procedures.

SCANS

The Secretary's Commission on Achieving Necessary Skills (SCANS) identified Competencies in the area of Resources, Interpersonal, Information, Systems, and Technology; and foundation skills in the areas of Basic Skills, Thinking Skills, and Personal Qualities. This course is part of a program in which each of these Competencies and skills are integrated. The specific SCANS Competencies that are recognized throughout this course are noted at the end of the appropriate Competencies or task listed.