

Master Syllabus DSAE 1415

Austin Community College District

DSAE 1415 Principles of Adult Echocardiography

Section: [REDACTED]

Synonym: [REDACTED]

Instructor Name(s) & Credentials: [REDACTED]

E-mail: [REDACTED]

Phone: [REDACTED]

Office Hours (for each instructor)

Day [REDACTED]

Time [REDACTED]

to call to schedule [REDACTED]

Course Description

This course is an introduction to cardiovascular anatomy and physiology, including hemodynamics and spatial relationships of the normal adult heart. Topics include anatomical correlation of 2-D, M-mode, and Doppler sonographic imaging. Scanning techniques are correlated and taught in the laboratory sessions. (WECM 2011) The student will utilize critical thinking skills by associating anatomy, physiology, related diagnostic testing, and normal sonographic appearances of the adult heart. This course is correlated with DSAE 1260 (ACC Sonography Programs).

Prerequisite courses include DMSO 1302 and DMSO 1100.

Course Rationale/Objectives

This course provides basic instruction in adult echocardiography ultrasound imaging.

Student Learning Outcomes

Course Student Learning Outcomes

Upon completion of the course the student will be able to:

- Identify cardiac structures and functions in the normal heart
- Discuss normal hemodynamic parameters, including intracardiac pressures and oxygen saturation
- Identify the electrophysiologic pathways and their functions
- Identify the normal QRS complex and its relation to mechanical systole and diastole
- Identify the coronary arteries and their associated wall segments; and demonstrate scanning techniques using standard protocol guidelines.
- Identify all pertinent anatomic and two-dimensional cardiac structures in the normal heart, including the coronary arteries and wall segments, and define the function of each structure.
- Identify and measure Doppler waveforms across normal anatomy

Discipline/Program Student Learning Outcomes

At the conclusion of the DCS Program, the student will

- Demonstrate cardiac sonographer entry-level competency in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

- Demonstrate the ability to perform diagnostic quality sonographic examinations of the adult heart, including 2-D, color Doppler, spectral Doppler and M-Mode assessments.
- Evaluate the normal, abnormal, and normal variant sonographic appearances of the adult heart using the appropriate sonographic modalities.

SCANS Competencies

Resources: Identifies, organizes, plans, and allocates resources

- Time - selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules *(Completes all assignments within specified time frame; maintains appropriate course attendance)*

Interpersonal: Works with others

- Participates as member of a team - contributes to group effort *(Class group discussions and assignments)*
- Services clients/customers - works to satisfy customers expectations *(Sonographer – patient and Sonographer – staff interactions, Professional Conduct)*
- Works with diversity - works well with men and women from diverse backgrounds *(Sonographer – patient and Sonographer – staff interactions, Professional Conduct)*

Information: Acquires and evaluates information

- Acquires and evaluates information *(completes pre-class, homework and self-study activity assignments)*
- Organizes and maintains information *(creates a binder of class materials, keeps course materials at hand and up-to-date)*
- Interprets and communicates information *(identifies normal sonographic anatomy on images, identifies normal anatomic measurements and physiologic functions)*
- Uses computers to process information *(completes online assignments for this course)*

Systems: Understands complex interrelationships

- Understands systems - knows how social, organizational, and technological systems work and operates effectively with them *(role of the sonographer in the health care team)*

Technology: Works with a variety of technologies

- Selects technology - chooses procedures, tools, or equipment including computers and related technologies *(Identifies ultrasound applications)*

Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens, and speaks

- Reading - locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules
- Writing - communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts
- Listening - receives, attends to, interprets, and responds to verbal messages and other cues
- Speaking - organizes ideas and communicates orally

Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons

- Creative thinking - generates new ideas *(develops methods of organizing and studying complex material)*
- Decision making - specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternatives *(develops a personal study plan, evaluates plan for effectiveness)*
- Problem solving - recognizes problems and devises and implements plan of action
- Knowing how to learn - uses efficient learning techniques to acquire and apply new knowledge and skills *(develops a personal study plan, seeks assistance to learn complex and voluminous amounts of information)*
- Reasoning - discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem *(relates gross anatomy and anatomical relationships to the sonographic appearances of anatomy)*

Personal Qualities: Responsibility, self-esteem, sociability, self-management, integrity, and honesty *(complies with all ACC, ACC Health Sciences, and ACC Sonography Programs policies, procedures, and requirements)*

- Responsibility - exerts a high level of effort and perseveres towards goal attainment
- Self-esteem - believes in own self-worth and maintains a positive view of self
- Sociability - demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings *(works with peers on assigned group projects)*

- Self-management - assesses self accurately, sets personal goals, monitors progress, and exhibits self-control (*discusses goals and self-assessment with instructors*)
- Integrity/honesty - chooses ethical courses of action

Required Texts/Materials

Instructional Methodology

A variety of instructional methods including, but not limited to: online pre-class assignments, writing assignments, internet research assignments, self-study activities, quizzes, and tests.

Grading System

Scale

- A = 93-100
- B = 92-85
- C = 84-75
- D = 74-68*

Grading Distribution

*A course grade of "C" or greater in all Sonography courses is required for progression in the program.

A student who is tardy for a quiz or exam will miss the opportunity to take the exam and will not be allowed to enter the classroom until the exam is completed (if a class session is held after the exam). The lowest assignment or quiz grade will be dropped if student is absent for the class session.

Insert additional information here, such as: A "0" for the missed quiz/exam and (may, or may not...instructor must choose one or the other) allow make-up of a missed quiz or exam.

Appeal of scoring of specific test questions or evaluations will be submitted to the instructor in writing within one week of the test/evaluation and will include a rationale and supporting reference citation. The instructor will respond in writing to all test question/evaluation appeals within one week and will include the final decisions and referenced rationale. All decisions of the instructor to appealed questions/evaluations are final.

Course/Class Policies:

Attendance

Lecture Session: [redacted]

Lab Session: [redacted]

The subject matter of the Sonography Programs curricula concerns the health and safety of the patients cared for by the Sonography students and graduates. Because of this and the amount of information delivered in lecture and lab sessions, it is critical that students are present for all class sessions in their entirety.

There is no distinction between absences (with or without notification), tardiness, or leaving early; they are all considered an absence. Repeated absenteeism requires that the student meet with his/her instructor to discuss the student's ability to accomplish the objectives of the course.

Unsatisfactory attendance (absent 20% of class sessions, with or without notification) in any Sonography course may result in instructor initiated withdrawal from the course, and therefore, the Sonography Program.

As stated on the ACC Current Students website (Need To Know section):

<http://www.austincc.edu/current/needtoknow/academic.php#attendance>

Attendance

Regular and punctual class and laboratory attendance is expected of all students. If attendance is unsatisfactory, the instructor may withdraw students from class. (Other reasons for instructor-initiated withdrawals might be students' failure to comply with course policies or meet objectives.)

It is the student's responsibility to obtain notes and material covered in class during their absence. A student who is tardy for a quiz or exam will miss the opportunity to take the test and will not be allowed to enter the classroom until the test is completed (if a class session is held after the exam).

The SCAN® binder MUST be brought to all class sessions for this course.

If ACC is forced to cancel classes due to an emergency (including weather events), all Sonography lecture classes, lab sessions, and clinical rotations will also be canceled. Notification of closure will be made through the college's Emergency Messenger System. Students must provide ACC with a contact number to be part of the Emergency Messenger Notification System. In case of an emergency, all staff, faculty, and students who have updated their information, will receive a voice mail or text message within minutes; e-mails will also be sent to the student ACC g-mail accounts. The message and e-mail will tell you the nature of the emergency and what action you should take if any. Information will also be available through local radio, and TV stations, as well as ACC's Channel 19. Students out of the immediate broadcast area should check the ACC website (<http://www.austincc.edu>) for information.

ACC Withdrawal Policy

It is the responsibility of each student to ensure that his or her name is removed from the roll should he or she decide to withdraw from the class. The instructor does, however, reserve the right to drop a student should he or she feel it is necessary. If a student decides to withdraw, he or she should also verify that the withdrawal is submitted before the Final Withdrawal Date. The student is also strongly encouraged to retain their copy of the withdrawal form for their records.

Students who enroll for the third or subsequent time in a course taken since Fall, 2002, may be charged a higher tuition rate, for that course.

State law permits students to withdraw from no more than six courses during their entire undergraduate career at Texas public colleges or universities. With certain exceptions, all course withdrawals automatically count towards this limit. Details regarding this policy can be found in the ACC college catalog.

Professional Behavior

Faculty of Austin Community College and the Health Sciences Programs has an academic, legal and ethical responsibility to protect members of the public and of the health care community from unsafe or unprofessional practices. Health Science students, while representing Austin Community College at any clinical agency, must conduct themselves in an ethical, professional, and safe manner. Students are expected to assume responsibility for their actions and will be held accountable for them. Students will abide by ACC and clinical agency policies during each clinical experience.

Failure to adhere to program specific policies related to professional behavior or safe clinical practice may result in the use of the Progressive Discipline Policy outlined in this syllabus and in the Sonography Student Handbook (<http://www.austincc.edu/health/sono/current.php>).

Sonography Programs Conduct Standards

- Students will comply with all ACC, Programs and Clinical Affiliate policies, procedures, and rules at all times.
- No food or drink is allowed in any Sonography classroom or lab.
- No disruptive behavior of any type is allowed during lectures, labs, or clinicals.
- A student will communicate privately with the instructor regarding his/her individual performance.
- Discussions and opinions held forth in the classroom setting remain within the classroom and are not to be disseminated to those outside the classroom.
- Learning styles of classmates are to be respected.

- Students are prohibited from after-hours socializing with ACC Sonography faculty, clinical instructors, sonographers, and staff members during the length of the Program.
- Issuance of three (3) Affective Domain Performance Notifications during of a semester of the Program (pattern of behavior) may result in the initiation of the Health Sciences Progressive Discipline Process at Step 2, Conference Report

Technical Standards and Essential Functions

Health Sciences programs establish technical standards and essential functions to ensure that students have the abilities required to participate and potentially be successful in all aspects of the respective programs. Students are required to meet technical standards and essential functions for the Sonography Programs as indicated in the Sonography Student Handbook and on-line at <http://www.austincc.edu/health/sono>. If a student is unable to meet all of the outlined standards, he/she may be withdrawn from the program.

Electronic Devices

The use of any electronic device is strictly prohibited within the ACC Sonography Lab, at the Clinical Site, and during all class sessions. The student is prohibited from having a cell phone or pager on his/her person while in the clinical site and/or the Sonography lab. Use of computers and recording devices is prohibited during class sessions unless the student obtains written permission from the instructor.

Computer Access/Email

All students must be able to access the ACC online teaching platform, Blackboard, and their ACC email accounts (assigned by the college). Students may utilize any of the computers on any ACC campus to check their email accounts and to access Blackboard. Blackboard and email accounts should be checked frequently for assignments, announcements and/or messages.

Computer Skills

Sonography students are required to demonstrate a variety of computer skills throughout the length of the program. All Sonography clinical sites utilize computer systems for patient schedules and patient information; Sonography students must be able to utilize any clinical site's data/patient management system as allowed by the clinical site. A student who unfamiliar with using a computer or who has limited computer skills is expected to seek instruction in computer programs and usage so that he/she will be able to meet the requirements of his/her courses.

Chain of Command

If you have a question about a grading policy and/or a specific assignment grade, you must raise your question while enrolled in the course. Meet with your instructor and discuss your questions or objections. Document in writing what you discuss and the outcome of that discussion in case you later request a formal Review of Final Course Grade (<http://www.austincc.edu/catalog/pdf/ACC-Catalog-FY11-12.pdf>).

If you are unable to resolve your questions or objections with your instructor, make an appointment with the department chair to discuss the matter or, if the instructor is the department chair, with the dean. If you need help locating the department chair or dean, visit Student Services on any campus, or refer to the website at <http://www.austincc.edu/dept>.

ACC Statement on Scholastic Dishonesty

A student attending ACC assumes responsibility for conduct compatible with the mission of the college as an educational institution. Students have the responsibility to submit coursework that is the result of their own thought, research, or self-expression. Students must follow all instructions given by faculty or designated college representatives when taking examinations, placement assessments, tests, quizzes, and evaluations. Actions constituting scholastic dishonesty include, but are not limited to, plagiarism, cheating, fabrication, collusion, and falsifying documents. Penalties for scholastic dishonesty will depend upon the nature of the violation and may range from lowering a grade on one assignment to an "F" in the course and/or expulsion from the college. See the

Student Standards of Conduct and Disciplinary Process and other policies at <http://www.austincc.edu/current/needtoknow>

ACC Student Rights and Responsibilities

Students at the college have the rights accorded by the U.S. Constitution to freedom of speech, peaceful assembly, petition, and association. These rights carry with them the responsibility to accord the same rights to others in the college community and not to interfere with or disrupt the educational process. Opportunity for students to examine and question pertinent data and assumptions of a given discipline, guided by the evidence of scholarly research, is appropriate in a learning environment. This concept is accompanied by an equally demanding concept of responsibility on the part of the student. As willing partners in learning, students must comply with college rules and procedures.

ACC Statement on Students with Disabilities

Each ACC campus offers support services for students with documented disabilities. Students with disabilities who need classroom, academic or other accommodations must request them through the Office for Students with Disabilities (OSD). Students are encouraged to request accommodations when they register for courses or at least three weeks before the start of the semester, otherwise the provision of accommodations may be delayed.

Students who have received approval for accommodations from OSD for this course must provide the instructor with the 'Notice of Approved Accommodations' from OSD before accommodations will be provided. Arrangements for academic accommodations can only be made after the instructor receives the 'Notice of Approved Accommodations' from the student.

Students with approved accommodations are encouraged to submit the 'Notice of Approved Accommodations' to the instructor at the beginning of the semester because a reasonable amount of time may be needed to prepare and arrange for the accommodations.

Additional information about the Office for Students with Disabilities is available at <http://www.austincc.edu/support/osd/>

ACC Safety Statement

Austin Community College is committed to providing a safe and healthy environment for study and work. You are expected to learn and comply with ACC environmental, health and safety procedures and agree to follow ACC safety policies. Additional information on these can be found at <http://www.austincc.edu/ehs>. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the Emergency Procedures poster and Campus Safety Plan map in each classroom. Additional information about emergency procedures and how to sign up for ACC Emergency Alerts to be notified in the event of a serious emergency can be found at <http://www.austincc.edu/emergency/>.

Please note, you are expected to conduct yourself professionally with respect and courtesy to all. Anyone who thoughtlessly or intentionally jeopardizes the health or safety of another individual will be dismissed from the day's activity, may be withdrawn from the class, and/or barred from attending future activities.

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Use of ACC email

All College e-mail communication to students will be sent solely to the student's ACCmail account, with the expectation that such communications will be read in a timely fashion. ACC will send important information and will notify you of any college related emergencies using this account. Students should only expect to receive email communication from their instructor using this account. Likewise, students should use their ACCmail account when

communicating with instructors and staff. Instructions for activating an ACCmail account can be found at <http://www.austincc.edu/accmail/index.php>.

ACC and Health Sciences Policy: Incomplete

A student in good standing in a sonography course may request an Incomplete for that course if one of more of the following is determined by Department Chair to be present: serious illness or injury that prevents the student from completing coursework by the end of the semester but will not affect the student's continuance in the program or significant personal circumstances that would prevent the student from attending class or clinical during the last 3 weeks of the semester.

- All coursework must be satisfactorily completed prior to the beginning of the next semester as all Sonography courses in a semester are prerequisites for the next semester's courses.

ACC Student and Instructional Services

ACC strives to provide exemplary support to its students and offers a broad variety of opportunities and services. Information on these services and support systems is available at: <http://www.austincc.edu/s4/>

Links to many student services and other information can be found at: <http://www.austincc.edu/current/>

ACC Learning Labs provide free tutoring services to all ACC students currently enrolled in the course to be tutored. The tutor schedule for each Learning Lab may be found at: <http://www.austincc.edu/tutor/students/tutoring.php>

For help setting up your ACCeID, ACC Gmail, or ACC Blackboard, see a Learning Lab Technician at any ACC Learning Lab.

Please see the ACC Student Handbook (<http://www.austincc.edu/current/needtoknow>) and Sonography Student Handbook for additional ACC, Health Sciences, and program specific policies.

The instructor reserves the right to make changes in the course schedule and learning activities as needed.

Insert Course Calendar and/or Outline here