# Valencia College School Health Sciences

# ATC Echocardiography Program

## RET4441C CARDIAC ULTRASOUND II CRN 22208

#### **SYLLABUS- SPRING 2024**

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Canvas Inbox for course-related issues

Office Hours: Virtual Hours- by appointment, and Lab: Tuesdays, 6p-9p

#### **COURSE INFORMATION**

Course Title: Cardiac Ultrasound II

Credit Hours: 3 credits; 2 Credits: Online Class, 1 Credit: 3 Hour Lab

Pre-requisite: Admission to the Echocardiography ATC, or BSRAD Cardiac Ultrasound

concentration.

**Refund of Fees:** The Drop/Refund deadline for this course is January 16, 2024.

Instructional Method: Mixed Mode, Canvas Online Learning with On-Campus Lab

Meeting days/times/location: This is an instructor-facilitated Hybrid course in the online Canvas learning management system with a three hour on-campus lab. Most learning activities, discussions and assignments are completed online. Laboratory practice is completed on campus. There is 24/7 access to the course, and students are expected to plan their own schedule to complete the readings, learning activities and assignments within the deadlines indicated. The Lab will meet on Tuesdays from 1800-2100 where sonography skills will be taught and evaluated for one of the three hours of the course credits. The expected time commitment for this 3-credit hybrid online course is a minimum of 9 hours of student work and participation per week.

**Course Description:** This course is designed to provide students with a comprehensive understanding of cardiac ultrasound from its function as a modality to its use in diagnosing cardiac states. Students will learn how to use both the tools of the ultrasound machines to their optimum. They will also be learning to provide accurate data to the reading cardiologist through the images obtained.

**Course Learning Outcomes:** These are the primary objectives of this course:

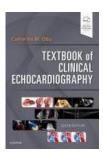
- The student will have cognizant knowledge of the workings and use of ultrasound equipment in advanced procedures and analysis of valvular, congenital, and muscular function of the heart.
- The student will learn to obtain and analyze with accuracy all necessary procedures used in the lab section of the class and how they will be applied in Clinical practice at area hospitals.

- The student will learn the use of Doppler signals to evaluate the flow within the heart, both normal and abnormal flow.
- The student will be able to apply these tools to the evaluation of structures within the heart and determine their function. Calculation of valve area from the evaluation and analysis of data obtained will be achieved. Analysis of valvular regurgitation on all the cardiac valves will be stressed and learned in the lab portion of this course.
- The student should be able to view and offer objective analysis and calculations to make this
  determination of function. The student will learn how to express these findings in a
  professional manner to a reading cardiologist.

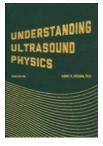
Valencia College Core Competencies: The faculty of Valencia College have identified four core competencies, Think, Value, Communicate, and Act, which define learning outcomes for the successful Valencia graduate. These competencies provide the context for learning and assessment at Valencia. In this course, these core competencies will be developed and practiced through critical thinking and decision-making exercises, online discussion posts, case study analysis, online research, and reasoned choices made by acquiring, analyzing, synthesizing, and evaluating knowledge. Effective reading, listening, writing and verbal communication skills will also be developed as key components in demonstrating these core competencies.

### **Required Texts:**

 Otto, C. (2018) Textbook of Clinical Echocardiography, 6<sup>th</sup> ed., Saunders, ISBN: 9780323480482



Reference: Edelman, S.K. (2012) *Understanding Ultrasound Physics 4<sup>th</sup> ed.* E.S.P. Ultrasound, ISBN 0962644455



**Additional Handouts, Readings and Learning Resources:** Additional learning resources will be provided within Blackboard and during the Laboratory component by the instructor; Internet- based learning resources and research will also be assigned.

**Library Resources:** There are a multitude of Valencia Library services available to students; the following services as well as many others can be found at: <a href="http://valenciacollege.edu/library">http://valenciacollege.edu/library</a>

- **Borrowing and Circulation**. Students can borrow books from the library; there are also many eBooks available online.
- **Reference Services**. Reference librarians are available to help students. This is a free service on campus to help students with research, located at the library 2<sup>nd</sup> floor reference desk.
- Online Resources. Most research can be done from home, as many resources and help from librarians, are also available online.
- **Free Skill shops**. The Library's Computer Access Lab offers many free, 1-hr workshops on all types of computer software, including Microsoft Office products, Blackboard, and Windows.
- Ask-a-Librarian E-mail, Chat and Texting. Students can contact a Florida librarian with research
  questions using this statewide service with extended hours.

Online Participation/ Attendance Expectations: For online courses, attendance is determined by consistency in logging in and accessing the course content and completing discussion posts and assignments according to the schedule. According to Valencia policy, students who do not engage in an "academically related activity" during the first week of class will be dropped as a "No-Show". There will be a specific assignment to address this requirement posted in Blackboard.

Attendance of the weekly 3-hour lab is mandatory. All missed labs will be made up, at the instructor's discretion.

Questions and communication regarding course content should be posted under the specified discussion topic in Canvas. The instructor is available via course communication tools within Canvas, and during the Lab periods. Students are encouraged to seek assistance from the instructor as needed. Students are expected to check Blackboard and their Atlas email for important communication and updates on a regular basis, and at a minimum every other day. Failure to participate in online activities and complete discussion posts and assignments due to computer error is not considered to be an acceptable excuse. Technical communication issues that may be experienced by the student should be documented, e.g. copy emails, save screen shots, etc. and communicated to the instructor immediately.

**Note:** Just logging into the course does NOT count as attendance. For the instructor to document that you are actually in the class and actively participating, you must submit the first assignment by the scheduled due date, during Week 1, and continue to stay engaged in the course throughout the entire semester.

Resources and Technical Requirements for Online Courses: To participate in online courses, students must have access to a computer with reliable internet access. Valencia offers many online resources to help students with the online learning environment. "Getting Started Online, Valencia 101" is a great place to start. Steps needed to determine computer system requirements and browser compatibility, as well as tutorials and strategies for online learning using the Blackboard learning system, are all available at: <a href="http://valenciacollege.edu/oit/learning-technology-services/student-resources">http://valenciacollege.edu/oit/learning-technology-services/student-resources</a>

## **IMPORTANT VALENCIA DATES \***

Classes Begin	January 8, 2024
Withdrawal Deadline	March 15, 2024
Final Exams	April 22-28, 2024
Holidays – College Closed	Spring Break March 18-24,2024

<sup>\*</sup>The Valencia College Calendar can be accessed at: <a href="http://valenciacollege.edu/calendar">http://valenciacollege.edu/calendar</a>

# **ASSESSMENT**

Your grade will be determined by:

Discussion Posts / Assignments	20%
Chapter Quizzes	20%
Lab	30%
Final Exam	30%

#### **GRADING SCALE**

A	93-100%
В	85-92%
С	76-84%
D	69-75%
F	Below 69%

Weekly Schedule of Topics: This represents the planned schedule; dates and topics may be subject to change.

Week	2024 Dates	Торіс
1	Jan 8- Jan 14	Cardiac Pharmacy
		Chapter 8
2	Jan 15- Jan 21	Coronary Artery Disease
		Chapter 9
3	Jan 22- Jan 28	Dilated Cardiomyopathy
4	Jan 29-Feb 4	Chapter 9 Hypertrophic Cardiomyopathy
5	Feb 5- Feb 11	Chapter 9 Restrictive and other Cardiomyopathies
6	Feb 12- Feb 18	Chapter 9 Hypertensive Heart Disease
7	Feb 19- Feb 25	Chapter 9 Pulmonary Heart Disease
8	Feb 26- Mar 3	Mid Term Exams
9	Mar 4-Mar 10	Chapter 10 Pericardial Disease
10	Mar 11- Mar 17	Chapter 11 Valvular Stenosis
11	Mar 18- Mar 24	SPRING BREAK!
12	Mar 25 Mar 21	Chapter 12
12	Mar 25-Mar 31	Valvular Regurgitation Chapter 13
13	April 1- April 7	Prosthetic Valves
	r P····	Chapter 14
14	April 8- April 14	Endocarditis
15	April 15- April 21	Chapter 15 Cardiac Masses and Potential Cardiac Source of Embolus
16	April 22- April 28	Final Exams

**Exams:** The Final Exam will be administered online, within Canvas, and will be proctored by Honorlock. A webcam with microphone is needed to utilize Honorlock. Laboratory Exams will be administered on campus. The dates and times for each exam will be on the course schedule; the final exam will be administered during final exam week.

Completed exams will not be routinely made available for review by the student; however, this may be scheduled by contacting the instructor via phone or e-mail. The printing and/or distribution of any quiz or exam items are strictly prohibited. Missing the final exam will result in a grade of F until the student takes a make-up final, at which time a grade of A, B, C, D or F will be given."

**Make-up Exams:** If you are unable to take and exam as scheduled, you must notify the instructor prior to the scheduled test window. Make-up exams will not be available unless prior arrangements have been made. Approved make-up examinations must be scheduled within 24 hours of the missed exam. There are no dropped tests or re-testing.

**Work Missed:** Students must complete course assignments and activities according to their weekly due dates. As a rule, there are no make-ups for missed assignments and discussion posts. Late assignments will be accepted up to one day after the due date, with a 10% penalty. Extenuating circumstances that interfere with completing course requirements, such as death of a family member, immediate family medical emergency must be documented and may be discussed with the instructor.

**Extra Credit Policy:** There will be limited opportunities to earn extra credit but not to make up for missed assignments. Extra credit, when made available, will post in Canvas as the course progresses.

Withdrawal Deadline and Policy: According to Valencia College policy: "A student who withdraws from class before the withdrawal deadline of April 21, 2024, will receive a grade of "W." It is the student's own responsibility to withdraw before the withdrawal deadline. A student is not permitted to withdraw from class after the withdrawal deadline; if you remain in the class after the withdrawal deadline, you will receive a grade of A, B, C, D, F or I, based on work completed. An "I" grade will only be assigned under extraordinary circumstances that occur near the end of the semester. If you receive an "I", the work missed must be made up during the following semester, at which time you will get an A, B,C,D or F. Failure to make up the work during the following semester will result in you getting a grade of "F" in the course. Any student who withdraws from this class during a third or subsequent attempt in this course will be assigned a grade of "F."

If a student does not meet the online participation and attendance requirements described in the syllabus, the faculty member is permitted to withdraw a student from their class up to the beginning of the final exam period. If withdrawn by the instructor, your transcript will reflect a "W" and this will count as one attempt for this course.

If you have decided not to complete this course, it is better for you to drop the course yourself during the add/drop period to avoid negative consequences. During a first or second attempt in the same course at Valencia, if you withdraw, or are withdrawn by the professor, you will receive a W (Withdrawn). You will not receive credit for the course, and the W will not be calculated in your grade point average; however, the enrollment will count in your total attempts in the specific course.

**Note**: Students on financial aid should consult an advisor or counselor before withdrawing from a course; there may be financial implications to the student which he or she must know about to make an informed decision before withdrawing from a course. Students with certain forms of scholarships who withdraw or are withdrawn from a class must pay the college for the cost of the class. Other scholarship sponsors may also require repayment.

### **ADDITIONAL CLASSROOM INFORMATION**

**Faculty/Student Communication:** Valencia College is committed to providing each student with a quality educational experience. Faculty members have set high standards of instruction for themselves and for you. If you have a problem in a class, your first step is to talk to your instructor. If you are still dissatisfied, you may talk with the academic dean of the division. We are committed to working together to resolve any issues that may arise.

**Expected Student Conduct:** By enrolling at Valencia College, the student assumes responsibility for becoming familiar with and abiding by the general rules of conduct. The primary responsibility for managing the online classroom environment rests with the faculty. Violation of any online classroom or Valencia rules may lead to disciplinary action up to and including expulsion from Valencia. Disciplinary action could include being withdrawn from class, disciplinary warning, probation, suspension, expulsion, or other appropriate and authorized actions. You will find the Student Code of Conduct in the current Valencia Student Handbook.

**Academic Integrity:** As healthcare professionals you are expected to adhere to and maintain the highest standards of academic integrity and professional and ethical conduct. Unless otherwise stated, all assignments, quizzes and exams are to be completed individually by each student enrolled. You may not communicate with other students during completion of a quiz or examination. You are expecting you to submit only your own original work and not cheat by giving answers to others or taking them from anyone else.

According to the Random House Dictionary of the English Language, 2d ed., "Plagiarism is the unauthorized use or close imitation of the language and thoughts of another author and the representation of them as one's own original work". If you copy someone else's words into your paper or project and you do not give the original author appropriate credit for their work, you are plagiarizing. You are stealing the hard work of another person and passing it off as if it were your own effort. Working with other students on individual assignments, giving or receiving assistance during quizzes or exams is a form of academic dishonesty and will be considered cheating. Copying or printing of any quiz or test questions (for any purpose) is expressly prohibited and considered cheating.

**NOTE:** Plagiarism and Cheating of any kind on an examination, quiz, or assignment will result in at least an "F" for that assignment (depending on the severity of the case, may lead to an "F" for the entire course) and may be subject to appropriate sanctions according to the Student Code of Conduct in the current Valencia Student Handbook. <a href="http://valenciacollege.edu/policies/">http://valenciacollege.edu/policies/</a>.

Online Rules of Student Behavior / Netiquette: The term "netiquette" refers to the awareness of the need for a certain code of behavior (etiquette) in electronic environments (the net) ... Net + Etiquette = netiquette. All students are expected to:

- Show respect for the instructor and for other students in the class.
- Respect the privacy of other students.
- Express differences of opinion in a polite and rational way
- Maintain an environment of constructive criticism when commenting on the work of other students.
- Avoid bringing up irrelevant topics when involved in group discussions or other collaborative activities.

#### Students should not:

- Show disrespect for the instructor or for other students in the class.
- Send messages or comments that are threatening, harassing, or offensive.
- Use inappropriate or offensive language.
- Convey a hostile or confrontational tone when communicating or working collaboratively with other students.
- USE ALL UPPERCASE IN THEIR MESSAGES -- THIS IS THE EQUIVALENT OF SHOUTING!!

If a faculty member feels that a student is violating any of the above guidelines, they will contact that student to discuss the situation in person. If you feel that another student is behaving inappropriately, please send your instructor a private e-mail message explaining the situation as soon as possible.

Valencia ID Cards: All students are required to obtain a Valencia ID card to access the campus and any student services that are provided. A valid Valencia ID is the only form of identification that is accepted at the Library and Testing Center. After you have registered and paid for your fees, bring a photo ID to Student Development to obtain your Student ID card. Student IDs are free. If your ID is lost, there is a \$5 fee to replace it.

### STUDENT HELP / SUPPORT SERVICES

Your success is very important to us! Students are encouraged to seek assistance from the instructor as needed. When additional support is needed, Valencia provides many student support resources including: Computer Labs, Learning Centers, Student Success Workshops, Online Tutoring, Testing Center Support and Writing Consultations. For more information, go to: <a href="http://valenciacollege.edu/learning-support/">http://valenciacollege.edu/learning-support/</a>

Baycare Behavioral Health's Student Assistance Program: Valencia is committed to making sure all our students have a rewarding and successful college experience and helps students in need of private counseling. To that purpose, Valencia students can get immediate help that may assist them with psychological issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home, or work. Students have 24-hour unlimited access to the Baycare Behavioral Health's confidential student assistance program phone counseling services by calling (800) 878-5470. Three free confidential face-to-face counseling sessions are also available to students.

**Students with Disabilities:** Students with disabilities who qualify for academic accommodations must provide a Notification to Instructor (NTI) form from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class; accommodations will not be applied retroactively. The Office for Students with Disabilities determines accommodation based on appropriate documentation of disabilities. The OSD is located on the West Campus SSB, Rm. 102 Phone: 407-582-1523 Fax: 407-582-1326.

**Disclaimer:** The course outline and syllabus are subject to change as needed; changes will be announced in Blackboard and/or via ATLAS email, in a timely manner. Your continued participation in this course after the drop-add deadline period constitutes an agreement with and an acceptance of the conditions presented in this syllabus.