Course Information

Course Date: Fall 2013
Course Meeting Times: Thursday 8am-3pm
Course Location: Health Science North lab 944 & 951
Course Type: web-enhanced
Instructor: Tina Welch
Health Science North 949
912-688-6019
twelch@ogeecheetech.edu
Office Hours: Tuesday 9-12pm; 1-2pm and Wednesday 1-4pm

Course Description:
This course provides students with three independent areas of concentration. They are High Resolution Sonography, Interventional Sonography and Pediatric Sonography. I. High Resolution Sonography introduces superficial structure anatomy, pathology and procedures for diagnostic medical sonography. II. Interventional Sonography this course provides instruction in sonographic procedures which are considered invasive and/or require sterile procedures. III. Pediatric Sonography provides the sonography student with specialized imaging procedures for the pediatric patient. Topics include: Intervention Sonography use of sonography in interventional procedures, transducer care, infection control, response to medical emergencies, contrast media, and organ transplant; High Resolution Sonography contrast media, and organ transplant; High Resolution Imaging anatomy and normal variants, function and physiology, indications for examination, sonographic imaging, pathology and pathophysiology, correlative and prior imaging, pertinent lab values; Pediatric Sonography embryology, anatomy and normal variants, function and physiology, indications for examination, sonographic imaging, and pathology and pathophysiology.

Credit/Contact Hours: 75 Contact, 3 Credit
Prerequisite/Corequisite: Program Admission, DMSO 1050 Abdominal Sonography I

Competency Areas:
1. Interventional Sonography – Use of Sonography in Interventional Procedures
   a. List clinical indications for interventional procedures.
b. Describe the sonographic technique for interventional procedures.
c. List various complications associated with interventional procedures 4 Demonstrate the sonographic technique for interventional procedures.
d. Describe the role of sonography in interventional procedures.
e. Demonstrate the role of sonography in interventional procedures.
f. Discuss the use and care for intravenous lines, catheters, percutaneous drains and oxygen administration devices.
g. Correlate clinical indications, laboratory values and functional testing procedures associated with interventional examinations.
h. Demonstrate normal and abnormal flow characteristics associated with the area of interest.

2. Interventional Sonography – Transducer Care
   a. Implement the proper techniques for the use of transducers in sterile and non-sterile procedures.

3. Interventional Sonography – Infection Control
   a. Explain the importance of infection control, practicing proper techniques and management and proper disposal of contaminated and biohazard materials.
   b. Implement isolation precautions and aseptic techniques.

4. Interventional Sonography – Response to Medical Emergencies
   a. Apply the basics of first aid as necessary during a lab simulation.
   b. Demonstrate the proper steps in Calling a Code in a simulated setting.

5. Interventional Sonography – Contrast Media
   a. Identify various contrast media used with sonography and medical imaging procedures.
   b. Identify the associated risks and contraindications of these contrast media.

6. Interventional Sonography – Organ Transplant
   a. List indications for organ transplant.
   b. Describe normal anatomy, organ function, sonographic technique, and sonographic appearance related to organ transplant.
   c. Correlate clinical indications and laboratory values associated with organ transplant.
d. Describe associated pathologies and sequelae relative to organ transplants.

e. Identify normal and abnormal flow characteristics and waveforms.

f. Correlate the method used to transplant the organ and expected sonographic findings.

7. High Resolution Imaging - Embryology
a. Explain the growth and development of the breast, neck, prostate, scrotum and musculoskeletal system.

8. High Resolution Imaging - Anatomy and Normal Variants
a. Describe the anatomy and variants of the breast, thyroid, parathyroid, prostate, scrotum, musculoskeletal system.

9. High Resolution Imaging - Function and Physiology
a. Describe the function of the breast, thyroid, parathyroid, prostate, scrotum and musculoskeletal system.

10. High Resolution Imaging - Indications for Examination
a. Describe the clinical indications and laboratory values associated with the breast, thyroid, parathyroid, prostate, scrotum and musculoskeletal system.

11. High Resolution Imaging – Sonographic Imaging
a. Describe the sonographic technique used to evaluate the breast, thyroid, parathyroid, prostate, scrotum, and musculoskeletal system.

b. Describe the sonographic procedure and protocol for imaging the breast, thyroid, parathyroid, prostate, scrotum and musculoskeletal system.

c. Identify the sonographic characteristics of normal findings in the breast, thyroid, parathyroid, prostate, scrotum and musculoskeletal system.

12. High Resolution Imaging – Pathology and Pathophysiology
a. Describe the pathologic conditions associated with the breast, thyroid, parathyroid, prostate, scrotum and musculoskeletal system.

b. Identify the sonographic characteristics of abnormal findings in the breast, thyroid, parathyroid, prostate, scrotum and musculoskeletal system.

13. High Resolution Imaging – Correlative and Prior Imaging
a. Compare the roles of mammography, sonography, computerized tomography, and magnetic resonance imaging (MRI).

b. Discuss various interventional procedures utilized in breast pathology diagnosis.

14. High Resolution Imaging - Pertinent Lab Values
a. Recognize the laboratory values associated with the breast, thyroid, parathyroid, prostate, scrotum and musculoskeletal system.

15. Pediatric Sonography - Embryology
   a. Explain the growth and development of the pediatric hip and pylorus: neonatal brain and spine.

16. Pediatric Sonography - Anatomy and Normal Variants
   a. Describe the anatomy and variants of the pediatric pylorus and neonatal spine.
   b. Describe the anatomical structures of the hip joint and relational anatomy.

17. Pediatric Sonography - Function and Physiology
   a. Describe the function of the pediatric pylorus and hip; neonatal brain and spine.

18. Pediatric Sonography - Indications for examination
   a. Describe the clinical indications and laboratory values associated with the pediatric hip and pylorus: neonatal brain and spine.

19. Pediatric Sonography – Sonographic Imaging
   a. Describe the sonographic technique used to evaluate the pediatric hip and pylorus: neonatal brain and spine.
   b. Describe the sonographic procedure and protocol for imaging the pediatric hip and pylorus: neonatal brain and spine.
   c. Identify the sonographic characteristics of normal findings in the pediatric hip and pylorus: neonatal brain and spine.

20. Pediatric Sonography - Pathology and Pathophysiology
   a. Describe the pathologic conditions associated with the pediatric hip and pylorus: neonatal brain and spine.
   b. Identify the sonographic characteristics of abnormal findings in the pediatric hip and pylorus: neonatal brain and spine.

Textbook & Materials
Textbook Title: Textbook of Diagnostic Ultrasonography, 7th Edition
Author(s): Sandra L. Hagen-Ansert
ISBN: 978-0-323-07301-1
Publisher: Elsevier
Materials: Required - 10 Scantron, Computer Access
          Suggested -none

Assessment
Distribution of Grades:
LAB TESTS  20%
LECTURE TESTS  35%
HOMEWORK/QUIZ  15%
FINAL  30%

Grading Scale:

A  90-100
B  80-89
C  70-79
D  60-69
F  59 and below

Final Exam:  9 December 2013 at 8:00 AM

Evaluation of the student’s achievement of the course objectives will be based on satisfactory completion of all required activities. Grading to be computed as follows:

- A grade of 85 % or better is required for Scan Lab Test.
- Lab tests will be a demonstration in which the student will be required to perform select tasks as defined by the objectives while the instructor observes and evaluates the performance. Student will be graded using the DMSO Lab Rubric. A student who fails to master procedures lab tests will be subject to disciplinary action. A lab test grade of 85 % or better is required to proceed to the next semester classes.

You will have 2 attempts to pass the lab exam with a grade of 85%. If unsuccessful, you cannot sit for the final and will receive a WP or WF depending on the grade you have received in class up to this point. Refer to the OTC student handbook for policy on readmission to the sonography program.

Work Ethics Information:

The Technical College System of Georgia instructs and evaluates students on work ethics in all programs of study. Ten work ethics traits have been identified and defined as essential for student success: appearance, attendance, attitude, character, communication, cooperation, organizational skills, productivity, respect, and teamwork. As a student in this Ogeechee Technical College course, you will be expected to adhere to the highest standards of these 10 character traits in your behavior as well as your coursework.

Classroom Policies

Attendance:  It is essential that educational programs maintain requirements and standards necessary for successful employment of its graduates in business and industry. In view of the intensive
nature of the educational programs, it is necessary for every student to be present and on time every day for all classes. Therefore, there are no excused absences from any course. Attendance is counted from the first scheduled class meeting of each semester. If the student misses more than ten (10) percent in any course during a semester, the student is subject to being dismissed from the course involved. Three (3) tardies or early departures equal one (1) absence for the course involved.

The student WILL be dropped for absence greater than 10%. THERE IS NO ATTENDANCE APPEAL PROCEDURE!

Course Withdrawal: Students may withdraw from a course without academic penalty until the midpoint of the term (as stated in the Academic Calendar and in the *OTC Catalog and Student Handbook*). By withdrawing before the midpoint of the term, the student is automatically assigned a grade of W, which does not affect term or cumulative grade point average. Grades of W will affect satisfactory academic progress for financial aid purposes. **Students who stop attending class(es) without formally withdrawing risk earning a final grade of F, which will appear on the academic transcript.** Refer to the *OTC Catalog and Student Handbook* for further details.

Late Work: Will not be accepted

Missed Exams: Every student is expected to be present on test day. If a student is absent for a scheduled test, you must wait until after your final exam is complete before the make-up test will be given. Only one make-up test will be allowed following the final. If you miss two or more tests during the quarter, the grade for the tests missed will be zero ("0")! No exceptions!! No make-up quizzes will be given.

Absences: Attendance is required. Three tardies equal 1 absence. A tardy includes being late to class or leaving early.

Extra Credit: none

Cheating/Plagiarism: Academic honesty is expected at all times. Any student found to have engaged in academic misconduct such as cheating, plagiarism, or collusion is subject to disciplinary sanctions as outlined in the Student Code of Conduct detailed in the *OTC Catalog and Student Handbook*. The term “plagiarism” includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. The term “collusion” includes, but is not limited to, the unauthorized collaboration with any other person in preparing work offered for academic credit. Students are
advised that faculty routinely use turnitin.com both to prevent plagiarism and to assist in verifying when/if it has occurred.

Safety

1. Read required chapters in textbook.
2. View course PowerPoint presentations.
3. Complete course components (not limited to: assignments/quizzes/exams/projects) as assigned and in the time frame designated.
4. The student will exhibit professional behavior at all times. Insubordination WILL NOT be tolerated and disciplinary measures will be immediately enacted.
5. Every student will participate as a volunteer for fellow classmates.
6. THE LAB WILL BE CLEANED AFTER EACH USE!
7. Cell phones & beepers must be turned off while in class and lab! No texting during class or lab hours. If a cell phone rings or vibrates in class, 10 points will be deducted from your final course grade.
8. Dress code in class and lab:

   - You are part of the Allied Health Professional team, it is important that your actions and dress emulate that of a professional.
   - Wear clean, properly fitting clothing. Chest, abdomen and back are to be covered at all times. No halter or tank type tops.
   - No tongue rings, nose rings or eyebrow studs, etc!
   - Tattoos must be covered.
   - No acrylic tips or nails. Fingernails must be short. No fingernail polish.

In case of emergency while on campus, please refer to the Emergency Operations and Safety Plan and the Blood Borne Pathogen Exposure Control Plan found by the door of all classrooms and labs on the OTC campus. A copy of the OTC Safety Plan can be found online at: http://www.ogeecheetech.edu/student_services/campus_safety.html.

The Director of Campus Safety & Security contact information is as follows: Stan York, 912.681.5667, syork@ogeecheetech.edu.

Disability Statement

Students with disabilities who believe that they may need accommodations in this class based on the impact of the disability are encouraged to contact Penny Hendrix, Disability and Student
Support Services Coordinator, Office 171E, Kennedy Bldg., 912.486.7211, to coordinate reasonable accommodations.

Special Populations Assistance Program

Students who may qualify for services on campus depending on the special needs they have and if they qualify as a special population should contact Kelli Waters, Student Activities & Special Populations Coordinator, Office 143D, Kennedy Bldg., 912.871.1885 for assistance.

Warranty Statement

The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.

Communication

Important communication about this course will be transmitted through the Ogeechee Tech student e-mail system. Students should check their student e-mail accounts before each class in order to receive the most up-to-the-minute information about classes and assignments.

Ogeechee Tech sends vital information about financial aid, registration, and college news through the student e-mail system. Students should check their student e-mail accounts periodically for this information.

Student e-mail may be accessed through the college website, www.ogeecheetech.edu, under the Current Students tab.

OTC Alert

Students are encouraged to sign up for OTC Alert, a system designed to notify students of any emergency on campus. Alerts are sent by text messaging and/or by e-mail. To subscribe to OTC Alert, a student can go to www.ogeecheetech.edu and click on Current Students → Banner Web → OTC Alert Information.

Library Resources

The Ogeechee Technical College Library provides students access to books, periodicals, ebooks, GALILEO, and other electronic resources. Students are encouraged to use the Library for class research projects. Help with research and projects is available within the Library. Computers are available for student use. A student ID is required in order to check out any materials from the Library or to use a computer. A self-service, black and white copier is also available. Hours of operation are Monday-Thursday from 7am until 9:30pm.
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