Introduction to Sonography  
DMSO 1210  
Fall 2014

INSTRUCTOR: Deb Kleinhans  
E-MAIL: Dkleinhans@alvincollege.edu

OFFICE: S 150  
PHONE: 281-756-5663

OFFICE HOURS: Tuesday 3:00-4:00 By appointment

COMMUNICATING WITH YOUR INSTRUCTOR:
The preferred method for communicating with your instructor is through MyBlackboard email or you may call me on my cell phone during normal business hours, the number will be announced at the first class meeting. Please leave your first and last name, a phone number or e-mail address where I can contact you and tell me what you need to discuss with me. I will normally respond within 24 hours Monday-Thursday and by the next business day on Friday-Sunday.

COURSE DESCRIPTION:
This course is an introduction to the profession of Sonography and the role of the technologists. Emphasis will be placed on medical terminology, ethical/legal issues, oral and written communication, HIPAA regulations, confidentiality, management, professional issues related to registry, accreditation, Sonography organizations, and the history of ultrasound and the branches of Diagnostic Medical Sonography.

Instructional Methods
This course is mostly on-line. There will be several face to face meetings scheduled and more as needed, however, plan to spend at least two hours per week or more to complete reading and assignments. Most of the course will come from the internet, student assignments and a final presentation.

Hybrid Internet Course
The students will meet for the first class date to review the syllabus and assignments. Class will also meet as necessary to turn in homework assignments and review for the unit exams, present management projects, and take the final exam. Communication among the group is vital to the success of the Internet course. Each student is expected to maintain a valid email account to correspond with fellow students and the instructor on a weekly basis. If you have an Internet problem with the course contact Dena Coots: Assistant Director of Distance Education/Instructional Design at: dcoots@alvincollege.edu or tel: 281-756-3769.

Prerequisite
Acceptance into the Diagnostic Cardiovascular Sonography Program or interest in the DCVS program with future intent to apply to the program.

Attendance
For Internet courses, students must correspond with the instructor weekly to assess progress in the course. Weekly correspondence is marked as your attendance. Failure to check in with the instructor via weekly emails, assignments completed will count as an absence.
**TEXTBOOKS**

**Required Textbook:**


**Additional References:**
The Introduction to Sonography Handout
TEXTBOOK INFORMATION

For information on the textbook and other course materials, including details about how you can order your book online and have it delivered to you, visit the ACC College Store's Web page.

This textbook can be purchased at the ACC bookstore, which is open Monday through Thursday 7:30 a.m. to 7:00 p.m. and Friday 7:30 a.m. to 2:00 p.m. Bookstore hours can vary during holidays so please call the bookstore at 281-756-3681 for more information.

ASSIGNMENTS, EXAMS AND GRADING SUMMARY

Method of Evaluation
Student evaluation is based upon completion of assignments, unit examinations, attendance, and class participation.

Grading System
A = 91 –100
B = 82 – 90
C = 77 -71
F = below 77
(Example) Your grade is based on the TOTAL or AVERAGE of the points you received on all course assignments and activities. Always notify your instructor if you are concerned with your grades or your status in the class.
Students must make a 77 or better to receive credit for this course.
The final grade is calculated by averaging all of the exams together. All homework and quizzes are averaged together to count as one exam grade. Major projects count as one major grade.

W….Withdrawal. It is recommended that the student talk to the instructor before withdrawing. Current information can be found online in the Withdrawal section of ACC Schedule. Students who file withdrawal requests by the published deadline will receive a grade of W.

Bonus Points
Students may receive up to two bonus points, to be added to the final average for this course, by completing any of the following activities.
1.) Join one or more of the related professional organizations. (Verification required – membership card or check stub)
2.) Attend any related society meeting or educational conference/in-service as announced. (Attendance must be verified – Have an important person sign a Bonus Point certificate found in the student manual.)
3.) Any other activity as announced by the instructor.

Exams
Exams are to taken at the Learning Lab on campus. Building A, 2nd floor, Room 210 (inside the Library) Phone-281-756-3566. An exam will be given at the end of each unit. The exams and assignments will be averaged to calculate the final grade. Each exam will be offered for a week long period of time. Any missed exam will be replaced by the final exam, so therefore, students may only miss one scheduled examination. There will be no exceptions! The final will be taken in the classroom and is mandatory.
Final Exam-12-1-14 The final exam is comprehensive.

DISCLAIMER: The instructor reserves the right to modify this syllabus as needed and will notify the students of any changes using the ACC e-mail or MyBlackboard e-mail or announcements.
ACADEMIC SUCCESS AND SUPPORT SERVICES:
1. The ACC Library website: [http://www.alvincollege.edu/library/default.htm](http://www.alvincollege.edu/library/default.htm). The ACC Library is an excellent source of assistance for writing the required research paper.

2. The ACC Learning Lab, located upstairs in building A, provides students with a variety of services including tutoring (math, writing papers, and other disciplines); computers and printers; a testing facility; and tables/carrels for studying. Learning Lab hours are M-TH 8:00am – 9:00pm and F 8:00am – 4:00pm. Testing hours are M-TH 10:00am – 7:30pm (Tests must be completed by 8:30pm) and F 10:00am – 12:00pm (Tests must be completed by 1:00pm). Call 281-756-3566 for more information.

3. MyBlackboard - Any technical problems or issues with MyBlackboard should be directed to the Distance Education Department at dcoots@alvincollege.edu. Include your first and last name, student ID number and a description of the problem. Students will not be penalized if there is an interruption in MyBlackboard service and the instructor is notified of such an issue by the Distance Education Department.

4. WEBACCESS, Passwords or ACC Computer Labs - contact the IT Dept. Help Desk at 281-756-3544.

AMERICANS WITH DISABILITIES ACT
ACC complies with ADA and 504 Federal guidelines by affording equal access to individuals who are seeking an education. Students who have a disability and would like classroom accommodations must register with the Office of Disability Services, A 136, (281)756-3533. Instructors are not able to provide accommodations until the proper process has been followed.

CODE OF ACADEMIC INTEGRITY AND HONESTY
Alvin Community College students are members of an institution dedicated to the pursuit of knowledge through a formalized program of instruction and learning. At the heart of this endeavor, lie the core values of academic integrity which include honesty, truth, and freedom from lies and fraud. Because personal integrity is important in all aspects of life, students at Alvin Community College are expected to conduct themselves with honesty and integrity both in and out of the classroom. Incidents of academic dishonesty will not be tolerated and students guilty of such conduct are subject to severe disciplinary measures.

1. Behavioral Intervention Team (BIT) – Letting someone know
The Behavioral Intervention Team (BIT) at Alvin Community College is committed to improving community safety. College faculty, staff, students and community members may communicate safety concerns to the BIT team by email, BIT@alvincollege.edu or through the electronic reporting option located on the BIT page of the college website.

Course Competencies
Upon successful completion of this course, the student will be able to...
1. Describe the historical development of ultrasound. (F1, F2, F5)
2. List the related professional organizations and state their function. (C13, C15, C5, C7)
3. Review the process and requirements for credentialing, accreditation, and review federal regulations. (F9, F11, C3, C4)
4. List the related professional organizations and state their function. (C13, C15)
5. Understand clinical practice guidelines for sonographers in these specialties. (C14, C15)
6. Apply common medical terminology and effectively use oral and written communication and review
Unit 1 Objectives – Professional Issues

By the end of this unit the student will be able to...
1. Discuss professional issues and terminology related to sonography.
2. List sonography professional organizations and state their function.
3. Review and understand the registry requirements for each specialty.
4. Define continuing education requirements for sonographers.
5. List the different branches of ultrasound and for which there is a credentialing exam.
6. Differentiate between the ARDMS and CCI credentialing agencies.
7. State the difference between registry, credentialing, and licensure.
8. Review the ARDMS exam content outlines.

Unit 2 Objectives – Medical Ethics, Clinical Practice Guidelines, Lab Accreditation

By the end of this unit the student will be able to...
1. Define terms related to the medical ethics discussed in this class. See key word list and highlighted terms in the ethics book (yes, the whole book).
2. Define risk management and the ultrasound professional’s role and define a sentinel event.
3. Recognize and identify methods to decrease risk of mishandling ethical situations.
4. Outline the lab accreditation process.
5. Define terminology related to lab accreditation.
6. State the mission and purpose of lab accreditation.
7. List the required components for accredited labs.
9. Describe the various types of legal documents found in hospital medical records.
10. Analyze the importance of the medical ethical issues discussed.
11. Review and discuss the basis for patient’s rights.
12. Explore student rights and responsibilities.
14. State the differences and similarities for hospital sonography lab accreditation and college sonography program accreditation.

Unit 3 Objectives – Medical Terminology, History of Ultrasound, Communication and Management issues, job readiness

By the end of this unit the student will be able to...
1. List the basic components and word parts, which will assist learning, meaning and spelling of common medical terms.
2. Identify parts of a word. Learn common medical abbreviations and symbols.
3. Define key words associated with medical terminology.
4. Describe the medical terms associated with the cardiovascular and hematological systems of the body.
5. Analyze selected terms relating to cardiovascular anatomy, diseases, diagnosis, treatment, and pharmacology.
6. Discuss the major historical developments in the field of ultrasound.
7. Discuss the development of related technologies.
8. Discuss the past, current, and future role of ultrasound.
9. Define the key components of effective written and oral communication.
10. Discuss the methods used to effectively communicate with fellow students, faculty, sonographers, and other members of the healthcare team.
11. Write out examples of technical reports and the terminology used.
12. List and define the managerial functions involved in running an ultrasound department, such as: hiring, firing, budgeting, planning, supervision, scheduling, education, orientation, etc.
13. Understand the primary components of a resume’, benefits of networking and interview management issues.
14. Professional qualities that a sonographer should possess.

**Internet Assignment 1:** Due week 2. Each student will do an Internet search of organizations related to Sonography and turn in a typed “webliography” of those sites including the URL address and a brief description of the sites content.

**Grading - Minimum of 10 websites = B, Minimum of 15 websites = A**

**Internet Assignment 2:** Due week 3. Each student will go to ARDMS.org and print out the SPI exam content and specialty exam. Submit the outlines for assignment 2. Those outlines will be discussed on My Blackboard under the discussions. State your first impressions and how you would prepare to take the exams. Your grade will be participation on the discussion and submitted outlines. Make sure you have BOTH exam outlines for your specialty area for ARDMS. If you have not decided on a specialty you may pick Adult Echo, Pedi Echo, or Vascular Technology. Know the different modalities of ultrasound that you may be credentialed in. Also include the fees, where the exams are taken, qualifications required to be able to take the exams. Once credentialed, the three requirements for keeping your credentials current. Then research the exam content and application process with CCI via their website. Compare and contrast the differences between ARDMS and CCI.

**Internet Assignment 3:** Due week 4. Each student will search the internet and find articles pertaining to the controversy of licensure and recertification for sonographers who are credentialed. Type one paragraph summarizing the debate on licensure. What is licensure and which states require a license. Then write one paragraph summarizing the recertification process and exam. What prerequisites do you need for the recertification exam, where is it taken, who administers the exam, when does it take effect. State your position with rationale if you are for or against licensure and your position on recertification on the discussion board. Most of this information may be found on the SDMS and ARDMS websites.

**Unit 1 exam 9-25-14**

**Internet Assignment 4 – Due week 6.** Go to IAC.orcg then look at the echocardiography and vascular Sonography accreditation sections to find out information on lab accreditation. Summarize and submit for a grade. Be sure to include the requirements, fees and steps taken to gain lab accreditation. **Be prepared to discuss findings.** Print out and keep for exam study purposes.

**Internet Assignment 5 – Due week 6.** Go to sdms.org and look up the clinical practice standards (including code of ethics) for Sonography. **Be prepared to discuss findings and submit a one page type written summary.** Print findings and keep for study purposes.
**Internet Assignment 6** – Due week 8. Pick an Imaging Scenario from Ethical and Legal Issues for Imaging Professionals book. Write a summary, including the page number; explain the actions of the person and how you would respond differently and why on the discussion board.

**Internet Assignment 7** – Due week 9. Submit the following definitions on MyBlackboard.

Unit 2 Key Word List:

**Internet Assignment 8-week 10** To be done at ACC 11-6-14

The HIPAA exam is to be taken in S143 at 3:00.

Review the HIPAA information in the back of your handout. Be sure to know:
The HIPAA work book and exam will be done in person at the College and is mandatory. Your grade will be your HIPAA exam grade.

Unit 2 Exam 11-6-14

**Internet Assignment 9** – Due week 11. Do an internet search of topics related to the history of ultrasound. Pick a person responsible for a significant development in the field of ultrasound. Prepare a 1-2 page written summary about the person, what their contribution to ultrasound/Sonography was and why you choose the person. When was ultrasound discovered? Who discovered the piezoelectric effect of transducers? Submit answers through MyBlackboard

**Internet Assignment 10**- Due week 12. Key word list: Submit through MyBlackboard

Medical abbreviations: Spell out and define each
CBC, RDS, NG, CVA, DVT, NPO, CHD, TID, NG, TIA, IU, Q4h, g, cc, Hs, AAA, Dx, HPT, hx, DM, HTN, SOB, MI, CAD, CABG
Management terms: Spell out and define each
PRN, FTE, Capital budget, Operating Budget, MBO, SWOT analysis

Unit 3 Exam 11-20-14

**Assignment 11** – Due week 15. Work in the Medical terminology self-learning program at your own pace. The exercises will be checked for completeness. An A if complete, F if incomplete. Medical Terminology will be used on each exam in all classes starting with the first exam and tested over specifically on the Unit 3 exam and final exam. Each student is responsible for knowing the proper medical terminology in order to pass written exams.
Week 15
Class Project – Professionalism – Due week 15
What professional qualities should a sonographer possess? Groups of two students are to prepare a Power Point presentation to be presented to the class on the final day. Each group should choose 10 different professional qualities to discuss. Please do NOT do the SAME 10 qualities.

Presentation should include at least 10 professional qualities that a good sonographer should possess. Essential Qualities should include but are not limited to appearance, training, credentialing, requirements for maintaining your credential, etc. Research the web for information. The grading rubric can be found on BlackBoard.

Final Exam - 12-1-14

Tentative Class Schedule DMSO 1210
Thursday’s from: 3:00-4:30 pm

Week 1
8-28-14
Review Syllabus – Explain Assignments Begin Unit 1

Week 2
9-4-14
Assignment #1
Webliography Internet

Week 3
9-11-14
Assignment #2
Handout/Internet

Week 4
9-18-14
Assignment #3
Licensure for Sonographers/Recertification Internet

Week 5
9-25-14
Meet at the college for review for Unit 1 exam Room S143 3-4:30 PM (9-25 through 10-1)

Unit 1 Exam

Week 6
10-2-14
Begin Unit 2
Medical Ethics, Clinical Practice Guidelines, Lab Accreditation

Week 6
10-2-14
Assignment #4
Lab Accreditation Internet

Week 7
10-9-14
Assignment #5
Clinical Practice Standards Handout/Code of Ethics Internet Handout

Week 8
10-23-14
Assignment #6
Imaging Scenario Handout

Ethics book
Week 9
10-30-14 Assignment #7 Definitions in syllabus Handout Medical Terminology

Week 10
11-6-14 HIPAA Exam To be done in class at the college (mandatory) Review for Unit 2 exam S143@3:00 Handout

Week 10
11-6-14 Unit 2 Exam (10-6 through 11-13)

Begin Unit 3 Communication, Management, Medical Terminology

Week 11
11-13-14 Assignment #9 History of Ultrasound Handout Internet

Week 12
11-20-14 Assignment #10 Unit 3 Key words Syllabus/Handout Meet at the college for Unit 3 review.

Week 13
11-20-14 Unit 3 Exam (11-20 through 11-25)

Week 14 Thanksgiving Week – OFF on Thursday no class

Week 15 Final Exam Medical Terminology Complete book Class Project 12-11 To be presented at the College Final Exam Room S143 at 3:00-5:00