

FSC 435
Senior Capstone
Spring 2009

Instructor: Dean Bertram
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Office Hours: M-F By appointment
118 College Dr. #5127
Hattiesburg, Ms 39406

Required Text: There is no required text for this course, lecture material will be given to the students at the beginning of each section.

Course Description: 3 lecture hours: Lecture and discussions will cover aspects related to the policies and procedures of a forensic laboratory that encompasses Quality Assurance, Quality Control, Methods and Ethics.

Drop date: The last day to drop without academic penalty Feb. 25th

Course Communication: Communication with students will primarily be during class lectures. If there are any changes that arise in the syllabus or class schedule between class meeting, each student will be notified if the change via USM email. Therefore, it is given that each student is expected to have their USM email address activated for this purpose. A departmental mailing list has been set up for the forensic science students. Syllabi will be post at www.usm.edu/aj. Please be aware of new updates.

Class Procedures and Requirements: Each student is expected to attend all class lectures. Students are expected to be on time for the start of class as to not interrupt or distract the class once the lecture has begun. Cell phones must be turned off prior to the start of class.

Class Participation: Students should be prepared to participate in class discussion based on assigned readings. Participation in class may help borderline students whose grade is just below the cutoff percentage for the next higher grade. Participation is expected to be professional and on a level commensurate with a college student.

Exams: There will be a final exam given at the end of the semester. The final exam will account for 30% of your final grade.

Exam schedule: Final exam- Consult class schedule bulletin for date

Papers: There will be a minimum of six (6) writing assignments given during the semester that will account for 50% of your final grade. Each student will be required to write a minimum of five (5) elements on topics covering QA/QC manuals and SOP manuals. Each student will be required to perform literature search on an assigned analytical method using at least five (5) references from scientific journals: Internet

references will not be accepted. The methods research will be summarized along with the supporting references as the sixth written assignment. Finally each student will be required to give an oral presentation to the class on one of their assignments. The presentation will count for 10% of the final grade. Plagiarism will result in a grade of 0.

Statistics and Computer Assignments: Under the QC assignments, students will be given instructions on how to set up QC charts within an Excel program. Instructions on how to calculate mean values, standard deviations and coefficient of variation along with interpretation of data using Westgard Rules of QC will count for 10% of the final grade.

Course Objective: The course is designed to familiarize students with forensic laboratory policies and procedures used to guide forensic scientists in the day-to-day operations of a laboratory. The course will also give the students knowledge and practice in writing manuals used in laboratories for the purpose of ensuring a work product that is defensible in a judicial setting. The methods research will aid students in the institution of new laboratory methods. Ethics will be a fundamental part of each assignment given its prevalence in society today and the consequences when one fails to follow basic ethics as a forensic scientist.

Learning Outcome: Upon completion of this course, students will understand the difference between Quality Assurance and Quality Control. They will know what each policy covers along with the aspect of their work product these policies control. Students will learn the components of a Standard Operations Manual and how to use the manual for performing forensic analyses. Students will also learn how to write each type of manual for any specific area of the laboratory that conforms to accreditation requirements.

Grading Scale:

- A= 89.5-100%
- B= 79.5-89.4%
- C= 69.5-79.4%
- D= 59.5-69.4%
- F= 59.4% and below

University Academic Honesty Policy

The University's academic honesty policy will be strictly enforced. You are expected to understand the policy which is available in the University Bulletin at the following address:

<http://www.usm.edu/registrar/catalogs2007/undergraduate/pdfs/Student%20Life.pdf>.

Plagiarism and/or cheating will not be tolerated. There will be no excuse for lack of familiarity of the Student Code of Conduct in the Student Handbook.

ADA Syllabus Statement

If a student has a disability that qualifies under the American with Disabilities Act (ADA) and requires accommodations, he/she should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures.

Disabilities covered by ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies. Mailing address: 118 College Drive # 8586, Hattiesburg, MS 39406-0001; Telephone: (601) 266-5024; TTY: (601) 266-6837; Fax: (601) 266-6035