TEXAS A&M UNIVERSITY-CORPUS CHRISTI
BIMS 4380: Introduction to the Clinical Lab Profession
CS 112      MW 11:55 am-12.58 pm

SPRING 2010 SYLLABUS

Instructor: Dr. Lillian Waldbeser
Office: Center for the Sciences, Room 242 (CS 242)
Office Hours: Tuesdays, 11:00 am - 2:00 pm
Wednesdays, 3:00 - 5:00 pm
Other days of the week: by appointment only
I am happy to see you outside my office hours. Making an appointment will ensure my being in my office when you stop by.

Phone: (361) 825-6050
E-mail: lillian.waldbeser@tamucc.edu

COURSE DESCRIPTION
This course consists of lecture studies of theory and principles of automation and instrumentation used in the clinical laboratory; study of basic statistics, quality control, and total quality assurance; study of scientific research guidelines and research statistical analysis

COURSE LEARNING OUTCOMES
Upon completion of this course the student will be able to:
1. explain the principles of selected laboratory instruments.
2. evaluate and select suitable instruments for the clinical laboratory.
3. develop and describe scientific research guidelines
4. demonstrate an understanding of the statistical analysis tools, and to utilize them for research
5. demonstrate the understanding of basic quality control, basic statistics and quality assurance.

TEXT and MATERIALS

GRADES
Examinations will only be given during scheduled time. There is no provision for making up late work and/or missed exams. A grade of zero will be entered for missed exams.
Test questions are keyed to class objectives. Attainment of course objectives will require that you have read all materials covered in class. Reading assignments may not be specifically given, however, you are expected to read the material that corresponds to the objectives as they are covered. Mastering objectives will require that you have read the material.

The following scale will be used to report grades:

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

The final course grade will be based on the following activities:

- Exam #1  15%
- Exam #2  15%
- Exam #3  15%
- Final  25%
- QA/QC project  10%
- Instrument research presentation  15%
- Homework/Quizzes/Attendance  5%

**HONESTY**

As stated in the university catalog, "University students are expected to conduct themselves in accordance with the highest standards of academic honesty." Cheating will not be tolerated and will result in a failing grade for the course.

**ATTENDANCE**

Class attendance is expected. If absent you will be responsible for knowing the material covered in class.

In the case of an extreme emergency causing an absence on major exam days, evidence that the absence was necessary will be required.

**COMPUTER ACCESS**

My lecture notes will be either on WebCT.

To access WebCT:
- Go to TAMUCC home page:  http://www.tamucc.edu/
- Select:  The Island Online
- Select:  Students
- Login to Island Online (WebCT)
- Enter your WebCT ID and Password, which are the same as your campus computer user ID and password.
If you have not applied for a computer user ID, go to the following website:
http://kestrel.tamucc.edu/~newuser

If you have any problems logging into WebCT with your new User ID, contact
the Collegis Helpdesk at: 1-877-725-4357.
- After you have logged in, you can select the courses that you wish to browse.
e.g. Fall 2005
  BIMS 4370 Medical Bacteriology
  Instructor: Lillian Waldbeser

STUDENTS WITH DISABILITIES

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. Should you need special consideration for exams and/or class activities (special microphones, additional time for exams, enlarged exams, etc.) or other accommodations, please contact the Disabilities Services Office at (361) 825-5816 or visit the office in Driftwood 101. The university will provide assistance as needed, but you must contact the center to make arrangements. The instructor cannot make modifications without the center’s involvement.

Should you have mobility problems, please notify the lecture and lab instructor so that they may seek assistance for you in the case of fire drills or emergencies.
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<thead>
<tr>
<th>Wk</th>
<th>Day</th>
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<tbody>
<tr>
<td>1</td>
<td>W</td>
<td>Jan 13</td>
<td>Lec 1</td>
<td>Course Introduction</td>
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<td>Work Flow Analysis</td>
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<td>2</td>
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<td>Jan 18</td>
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<td>Martin Luther King Holiday</td>
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<td>M</td>
<td>Feb 08</td>
<td>Lec 7</td>
<td>Molecular Diagnosis</td>
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<td>W</td>
<td>Feb 10</td>
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<td>Hospital Laboratory visit</td>
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<td>EXAM I (Lec. 1 – 7 material)</td>
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<td>Feb 17</td>
<td>Lec 8</td>
<td>Hematology Instrumentation</td>
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<td>Lec 9</td>
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<td>Instrumentation Reliability &amp; Validity</td>
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<td>Mar 01</td>
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<td>QA &amp; QC</td>
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<td>Preventive Maintenance, Trouble Shooting</td>
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<td>Lec 14</td>
<td>Clinical.Lab. Research Proposal</td>
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<td>Essential of Ethical Research</td>
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<td>Use of Human Subjects: Case Study, Tuskeg</td>
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<td>Ethics in Cl. Research: Case Study, Willowbrook</td>
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<td>Lec 18</td>
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<td>Apr 07</td>
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<td>TACLS Convention April 7-9</td>
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TEXAS A&M UNIVERSITY-CORPUS CHRISTI  
BIMS 4380: INTRODUCTION TO THE CLINICAL LAB PROFESSION  
INSTRUCTOR: DR. LILLIAN WALDBESER  
CS 112  
MW 11:55 am-12:58 pm  
SPRING 2010  LECTURE SCHEDULE

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<tr>
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<td>May 03</td>
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<td>Review</td>
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<td>F</td>
<td>May 07</td>
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<td>FINAL EXAM 11:00 a.m. - 1:30 p.m.</td>
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General Disclaimer:  
The instructor reserves the right to modify the schedule when necessary. These changes will be announced in class. It is the responsibility of the student to obtain the information as no effort will be made to contact the students who were absent when the announcement was made.
1. Select an instrument of choice (approved by professor).

2. Research and present a 15-20 minute PowerPoint presentation covering the following points.
   A) Manufacturer (include image of instrument)
   B) Principle(s) of the instrument
   C) Sample(s) required
   D) Throughput
   E) Test menu
   F) Instrument cost (if available)
   G) Cost per test
   H) Reagents – dry vs wet (include storage requirements)
   I) Start up time, loading, reagent preparation, etc.
   J) Calibration
   K) QC
   L) Scheduled maintenance
   M) Advantages and disadvantages
   N) Miscellaneous information

3. After your presentation turn in your PowerPoint
4. Presentation grade will be as follows:
   a) 50% peer evaluation
   b) 50% professor evaluation