CHEMISTRY 152 ELEMENTARY PHYSIOLOGICAL CHEMISTRY SYLLABUS Spring Semester 2014

GOALS AND EXPECTATIONS:

This lecture course, with lab component, is designed for health science (nursing) students. It will be emphasizing on the basic chemical properties of matter, solution, gases, and energy reactions. Also included is a survey of organic chemistry, nomenclature, and reactions of different functional groups. All this material will be covered as stated in the content section.

Student understanding of this material and especially the application of this knowledge will be expected and your grade will reflect this.

MEETINGS: FH133, MWF, 10:25 -11:15

<u>TEXT</u>: Fundamentals of General, Organic and Biological Chemistry, 7th Ed, By: McMurry & Costellion Study Guide: Full solution manual, By: Susan E. McMurry Prentice Hall 2003

OTHER MATERIAL: You should obtain a Periodic Table, a calculator, laboratory safety glasses

INSTRUCTOR: Mir Shamsuddin, D.V.M., Ph.D. Office: FH 403, 773-508-3134 mshamsu@luc.edu Hours: MW 11:30- 12:30 pm

| EXAMINATIONS: | EXAM 1: | Feb. 7, 2014 | QUIZ 1: | Jan. 31, 2014 | |
|---------------|--|---------------|---------|---------------|--|
| | EXAM 2: | Mar. 10, 2014 | QUIZ 2: | Feb. 28, 2014 | |
| | EXAM 3: | Apr. 2, 2014 | QUIZ 3: | Mar. 26, 2014 | |
| | FINAL EXAM: TBA (check university announcements) | | | | |

| EXAMINATION POLICY: | 3 Exams | 300 pts |
|---------------------|---------------------|---------|
| | 3 Quizzes | 45 pts |
| | 1 Final Exam | 100 pts |
| | Lab | 105 pts |
| | Mastering Chemistry | 15 pts |
| | Discussion | 10 pts |

To calculate your semester grade the following scale will be used:

| А | 95-100% | C+ | 71-75% | F<50% |
|----|---------|----|--------|-------|
| A- | 91-94% | С | 66-70% | |
| B+ | 86-90% | C- | 61-65% | |
| В | 81-85% | D+ | 56-60% | |
| B- | 76-80% | D | 51-55% | |
| | | | | |

MAKE-UP EXAMS AND QUIZZES WILL NOT BE GIVEN: If a properly documented emergency (minimally written, signed, and documented by doctors, judges or similar officials, along with notification prior to the examination as well as appropriate reason and valid time period is required) prevents one from taking an exam, the instructor may allow an averaging of the other two examinations to calculate a grade for an excused exam. Absence from the final examination will result in a zero for that exam. <u>Note</u>—*no makeup work, extra credit, or the like will be awarded;* such an opportunity would not be fair to the others in the class and will not be entertained.

LABORATORY: There is a lab portion of this course. It will be described in a separate handout. Each student is expected to be enrolled in a lab session

| DISCUSSION SCHEDULE: | Mon (004) | 12:35 – 1:20 pm | FH105 |
|----------------------|-----------|-----------------|-------|
| | Wed (006) | 12:35 – 1:20 pm | FH105 |

DISCUSSION SECTIONS: The discussion sections have been scheduled in order to help you learn chemistry by solving problems. All the different types of problems and chemical concepts that you will be expected to master will be reviewed at these sessions. In order to en courage your attendance at these sessions, a number of homework problems will be assigned for each session. You should solve or attempt to solve these assigned problems before attending your discussion section at which they will be reviewed. Attendance in discussion sessions is highly encouraged.

MASTERING CHEMISTRY: Assignments will be graded based on in time completion and correctness.

INSTRUCTOR PRIVILEGES: The instructor reserves the right to correct any error in the syllabus or modify this syllabus as deemed necessary.

Reminder of Important Polices for the Course Chem 152 Spring 14

Academic Dishonesty

The pressure of getting excellent grades can lead to frustration. However do not let such pressure interfere with your academic honor. It will be an unpleasant situation and there will be consequences if you are caught cheating, a failing grade for the course will be given. No note cards or other material can be used during exam.

Nursing students' integrity and trust is one of the most important aspects of professionalism. Any student found cheating on any examination will receive an automatic "zero" for that exam and his/her name will be brought to the attention of the Chairman of the Chemistry Department as well as the Dean of the Nursing School. It will then be decided whether further disciplinary action is necessary (in such situations, a permanent note of academic dishonesty will be attached to one's official records and transcripts).

Academic Integrity

All students in this course are expected to have read and to abide by the demanding standard of personal honesty, drafted by the College of Arts & Sciences, that can be viewed at:

http://www.luc.edu/cas/pdfs/CAS_Academic_Integrity_Statement_December_07.pdf

Anything you submit that is incorporated as part of your grade in this course (*e.g.*, quiz, examination, homework, lab report) must represent your own work. Any students caught cheating will, at the very minimum, receive a grade of "zero" for the item that was submitted and this grade cannot be dropped. If the cheating occurred during a course exam, the incident will be reported to the Chemistry Department Chair and the Office of the CAS Dean. Depending on the seriousness of the incident, additional sanctions may be imposed.

Ethics Policy

Do not talk during class. Try not to disturb class during lectures or exam period. Be Respectful to the instructor and to your peers. If you have a problem during course, please come to me before or after the class and I will try to find the best solution.

Other Notes

- 1. No food or drinks are allowed in the classroom or laboratory.
- 2. Use of cell phones in the classroom will not be permitted; you may not bring one into the classroom unless ringer is turned off.
- 3. Read textbook prior to attending class.

PHYSIOLOGICAL CHEMISTRY 152 LECTURE SYLLABUS SPRING 2014

| Date | Day | Ch. | Topic |
|------|-----|-----|-------------------------------------|
| 1/13 | М | 22 | Carbohydrates |
| 1/15 | W | 22 | Carbohydrates |
| 1/17 | F | 22 | Carbohydrates |
| 1/20 | M | | NO CLASSES |
| 1/22 | W | 18 | Protein and Amino Acids |
| 1/24 | F | 18 | Protein and Amino Acids |
| 1/27 | M | 18 | Protein and Amino Acids |
| 1/29 | W | 19 | Enzymes and Vitamins |
| 1/31 | F | 19 | Enzymes and Vitamins, Quiz 1 |
| 2/3 | M | 19 | Enzymes and Vitamins |
| 2/5 | W | 19 | Enzymes and Vitamins |
| 2/7 | F | | EXAM I |
| 2/10 | М | 24 | Lipids |
| 2/12 | W | 24 | Lipids |
| 2/14 | F | 24 | Lipids |
| 2/17 | M | 21 | Energy Metabolism |
| 2/19 | W | 21 | Energy Metabolism |
| 2/21 | F | 21 | Energy Metabolism |
| 2/24 | M | 21 | Energy Metabolism |
| 2/26 | W | 23 | Carbohydrate Metabolism |
| 2/28 | F | 23 | Carbohydrate Metabolism, Quiz 2 |
| 3/3 | M | | SPRING BREAK; NO CLASSES |
| 3/5 | W | | SPRING BREAK; NO CLASSES |

| 3/7 | F | | SPRING BREAK; NO CLASSES |
|------|---|----|---------------------------|
| 3/10 | М | | EXAM II |
| 3/12 | W | 23 | Carbohydrate Metabolism |
| 3/14 | F | 23 | Carbohydrate Metabolism |
| 3/17 | М | 25 | Lipid Metabolism |
| 3/19 | W | 25 | Lipid Metabolism |
| 3/21 | F | 26 | Nucleic Acids |
| 3/24 | М | 26 | Nucleic Acids |
| 3/26 | W | 26 | Nucleic Acids, Quiz 3 |
| 3/28 | F | 27 | Human Genome |
| 3/31 | М | 27 | Human Genome |
| 4/2 | W | | EXAM III |
| 4/4 | F | 20 | Chemical Messengers |
| 4/7 | М | 20 | Chemical Messengers |
| 4/9 | W | 20 | Chemical Messengers |
| 4/11 | F | 29 | Body Physiological Fluids |
| 4/14 | М | 29 | Body Physiological Fluids |
| 4/16 | W | 29 | Body Physiological Fluids |
| 4/18 | F | | EASTER BREAK; NO CLASSES |
| 4/21 | М | | EASTER BREAK; NO CLASSES |
| 4/23 | W | 29 | Body Physiological Fluids |
| 4/25 | F | | REVIEW DAY |

FINAL EXAM: TBA

| Lab Schedule: | Chem. | 152 |
|---------------|-------|-----|
|---------------|-------|-----|

| 152 | 007 | Μ | 2:45-4:30 | FH 204 |
|-----|-----|---|-------------|--------|
| | 008 | Т | 2:45-4:30 | FH 204 |
| | 009 | Т | 10:45-12:30 | FH 204 |
| | 010 | W | 2:45-4:30 | FH 204 |

Lab Instructor: Mir Shamsuddin

<u>Grading</u>: There will be a Safety Quiz worth 5 points on your first day of lab followed by equipment check-in. There will be a total of nine experiments. The procedure for each experiment and the outline for the required Pre-lab will be passed out during the previous lab period. Each lab meeting will start with submission by students of the completed Pre-lab on the experiment to be performed that day. The Pre-lab will be worth 3 points. The lab report is due immediately after completion of the experiment, and will be worth 7 points for your techniques and result. Lab final quiz is worth 10 points. The entire 152 Lab will be worth a total of 115 points.

| Week | <u>Of:</u> | Tentative Lab Schedule |
|------|------------|-----------------------------------|
| Jan. | 13-17 | Check-In, Safety Quiz |
| Jan. | 27-31 | Carbohydrates |
| Feb. | 3-7 | Polymerization and Model Building |
| Feb. | 10-14 | Protein and Amino Acids |
| Feb. | 17-21 | Fat and Lipids |
| Feb. | 24-28 | Vitamin C Content |
| Mar. | 10-14 | Analgesic, Aspirin Synthesis |
| Mar. | 17-21 | Protein Chromatography |
| Mar. | 24-28 | Enzymes Assay |
| Mar. | 31-4 | Physiological Fluids |
| Apr. | 7-11 | Check-Out and Lab Quiz |