CHEMISTRY 5160
Special Topics in Anal Chem
Course Syllabus - Spring, 2016

Sec 001; Thu 15:00 – 16:15 a.m. SLSRC 2410

Professor Shaorong Liu
SLSRC 1190 (Office)
phone: 325-9013; e-mail: shaorong.liu@ou.edu
Office Hours: Thu 16:30-17:30 p.m.; or by appointment.

Prerequisites:

Prerequisite: Chem 5100 and Chem 5120.

Textbook (used as a reference only):


This course will be conducted primarily through a discussion & leaning mechanism. I will serve as a moderator. A subgroup of you will be assigned a topic, you will read the topic materials, you will prepare a ppt presentation to the class, and you will answer questions from the audience. The rest of the students will also read the materials and prepare questions for the presenter(s).

Topics to be discussed (tentative):

Microfluidic device fabrication
Apparatus
Experimental Details
Applications
Other Policies:

UNIVERSITY POLICY REGARDING REASONABLE ACCOMMODATION

The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course should speak with the instructor as early in the semester as possible in order to ensure full participation and facilitate your educational opportunities. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173.

UNIVERSITY POLICY REGARDING CODES OF BEHAVIOR

Each student should acquaint her or his self with the University's codes, policies, and procedures involving academic misconduct, grievances, sexual and ethnic harassment, and discrimination based on physical handicap.

Students engaging in academic misconduct (including cheating, plagiarism, and any other action that may improperly affect evaluation) will be subject to sanctions in accordance with the Norman Campus Academic Misconduct Code. Grade sanctions could range from a zero for the specific assignment to an "F" for the course. University sanctions can be severe, i.e., expulsion from the University.

CHEATING: Academic dishonesty will not be tolerated in this course. Cheating in any form will be treated according to the rules enumerated in the student handbook. It is your responsibility to be familiar with these rules.

POLICY REGARDING CONTENT OF SYLLABUS

The instructor reserves the right to change any items contained in this syllabus. These changes include, but are not limited to, course content, scheduled dates, and fraction(s) of final grade assigned to individual components of the course.
Syllabus – CHEM 5240
Introduction to Biochemical Methods
Spring 2016
Classroom: 2410
MW 11:30 – 12:50 pm

Instructor: Dr. Jun Li
Office: SLSRC 3770
Phone: 325-9385
E-mail: junli@ou.edu
Office hours: MW 10:30 -11:30 pm

The primary objective of this course is to prepare students theoretically and practically for the biochemical work in the laboratory. The course will explain biochemical, molecular biological and genomics principles underlying modern techniques in the laboratory.

Prerequisites:
CHEM 3453 (Basic Physical Chemistry); CHEM 5200 (Principles of Biochemistry) or equivalent is recommended.

Recommend textbook:

Grading:
The final grade will be determined based on:
(1) quizzes (approximately 35% of final grade);
(2) Homework (approximately 35% of final grade)
(3) Final Exam (approximately 30% of final grade).

Lecture Schedule (subject to change)

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>February</td>
<td>Proteins, nucleic acids and traits</td>
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<tr>
<td></td>
<td>DNA preparation</td>
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<td></td>
<td>RNA preparation</td>
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<td>March</td>
<td>From Sanger sequencing to single molecule sequencing</td>
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<td>Library preparation for illumine sequencing</td>
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<td>Interpret the sequencing data</td>
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<td>Assembling</td>
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<td>SNP detection</td>
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<td>Genome comparison</td>
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<td>Exam</td>
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The instructor reserves the right to change by addition and/or subtraction any and/or all materials contained in this syllabus.
Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact the instructor personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.