TIME AND LOCATION:
Lecture: PS-111 (Wednesday, 12:00-12:50 pm)
Laboratory: PS-233 (Wednesday, 1:00-4:50 pm)

INSTRUCTOR:
Dr. Predrag Cudic, Office: SEB-127B, Phone: 561-297-0010. E-mail: pcudic@fau.edu.
Be sure to put “BCHL 3103” in the subject line.

OFFICE HOURS:
Monday 9:00 am-10:15 am, or by appointment.

TEACHING ASSISTANTS:
Aldo Franco, Office SEB 132, E-mail: aldofranco@hotmail.com
Orette Williams, Office SEB 132, E-mail: worette@hotmail.com

REQUIRED BOOK:

ADDITIONAL LITERATURE:

COURSE OBJECTIVE:
To introduce to the students important, basic techniques used in the modern experimental biochemistry and to prepare them for participation in the future research and development projects.
COURSE DESCRIPTION:
This laboratory course covers modern biochemical techniques and their theoretical basis. Topics include methods for titration purification and chromatography of biological materials, enzyme assay and use of UV/VIS and NMR spectroscopy.

LABORATORY SCHEDULE:

Wednesday, month/date/year  Check-in, Lab Practical

Wednesday, month/date/year  Experiment 1: Identification of an Amino Acid


Wednesday, month/date/year  Experiment 7. Isolation of DNA. (2 Lab periods. Exp #13 in Boyer’s). Structural, chemical and physical properties of nucleic acids.

Wednesday, month/date/year  Make-up Lab. Titration of Amino Acids. (1 Lab period. Lab manual). Identifications of amino acids by acid-base titration technique. Determination of amino acid’s pKₐ values and isoelectric point (pI).

Wednesday, month/date/year  Review. (50 minutes) Brief overview of all laboratory techniques used in this course.

*Part of the each lab will be devoted to a lecture on the topic of the lab.

ATTENDANCE POLICY:
Students are expected to attend every lab, and to arrive promptly and well prepared. A student who is absent from a lab without the prior permission of the instructor or does not have documented excuse will receive 0 points on the lab report for that experiment. **Maximum one approved absence will be tolerated.** Make-up lab will be allowed only for students who have approved absence. Only one make-up lab is scheduled for the end of this lab course. If missed lab is not made up, 0 points will be assigned. If you have 2 absences (excused or unexcused), you will be given a grade of I (incomplete). If you have 3 or more absences (excused or unexcused), you will be given a grade of F.

LAB ETIQUETTE:
Disruptive student may be asked to leave room. Cell phones and beepers should be disabled during entire lab class.

LAB SAFETY:
- Eating, drinking, smoking or chewing gum in the laboratory is strictly prohibited
- Mouth pipetting is not allowed
- Always wear safety glasses
- Always wear lab-coat
- Wear suitable clothing, sandals are not allowed in the laboratory
LABORATORY NOTEBOOK:
All calculations, procedures, observations and experimental data should be recorded in indelible ink in a bound laboratory notebook with pre-printed sequential page numbers. Teaching assistants should sign each page at the end of each laboratory period. Laboratory notebooks will not be graded, but must be used properly. For the general format of the laboratory notebook see: Chapter 1B, Rodney F. Boyer, “Modern Experimental Biochemistry”.

ACADEMIC INTEGRITY:
Students are reminded of the FAU policy on academic integrity (cheating, etc). See the current undergraduate catalog relating to academic irregularities.

GRADING:

Laboratory Reports: seven laboratory reports, each 0-100 points
All lab reports must be done on an individual basis. The lab reports must be typed using a word processor. Graphs and analysis of the data must be done with the use of a computer. You will be given instructions about the format and the information needed for each experiment. The lab reports are due a week after the experiment has been completed. Laboratory reports must include the following:

I. Title page (experiment title, author, date(s) experiment performed, author’s signature)
II. Introduction (two pages maximum, purpose of the experiment, theoretical principles of any techniques employed, hypothesis, literature reference)
III. Experimental (experimental details, materials and reagents, equipments)
IV. Data and Calculations (experimental data, method(s) of calculations, tables, graphs, figures)
V. Results and Discussion (three pages maximum, analysis of the data, significance of the data, conclusions.)
VI. References (one page maximum, list of all references used for the preparation of laboratory report, use references format recommended by ACS: textual references should be cited by number in order of appearance and put in the text in parentheses. Citations in the reference list at the end of the Lab. report should be arranged and numbered (1., 2., etc.,) in order of appearance. Examples:

*For the general format of the laboratory reports see: Chapter 1B, Rodney F. Boyer, “Modern Experimental Biochemistry”.

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Final exam: 0-300 points
It must be completed without use of book, notes or consultation with other students. Make-up test will be allowed only for the student who has documented excuse and inform the instructor prior to the exam.

Time and location for the final exam: to be announced.
Time and location for the make-up exam: to be announced.

TOTAL: 0-1000 points

The alphabetical grade will be determined in the following way:

A : 95.1% - 100% (951-1000 points)
A^-: 90.1% - 95% (901-950 points)
B^+: 87.1% - 90% (871-900 points)
B : 83.1% - 87% (831-870 points)
B^-: 80.1% - 83% (801-830 points)
C^+: 77.1% - 80% (771-800 points)
C : 73.1% - 77% (731-770 points)
C^-: 70.1% - 73% (701-730 points)
D^+: 65.1% - 70% (651-700 points)
D : 60.1% - 65% (601-650 points)
D^-: 55% - 60% (550-600 points)
F : < 55% (< 550 points)