

**EAST CENTRAL UNIVERSITY
BIOLOGY - B.S.
MOLECULAR BIOLOGY CONCENTRATION
0049/UG14**

Advisor _____

Student's Name _____ ID No. _____

DEGREE CHECK INCLUDES CURRENT ENROLLMENT

Checked by _____ Date _____
Required:
 124 total hours _____ completed
 30 hrs @ ECU _____ completed
 (15 of last 30 must be at ECU) _____
 60 hrs @ Sr College _____ completed
 40 hrs upper level _____ completed
 HS Curricular Req ___ met ___ not met

Work in progress _____
 2.0 minimum required in the following
 areas:
 ECU Avg _____ Rtn Avg _____
 Major Overall Avg _____
 Major ECU Avg _____
 Minor Overall Avg _____
 Minor ECU Avg _____

Work lacking:
 Major ____ (inc A/C and Related Work)
 Minor ____ (incl Rel Wk)
 Prof Educ _____
 General Educ _____
 Comp Prof ___ met ___ not met
 Serv Lrng ___ met ___ not met

REQUIREMENTS

HOURS

I. General Education (45 HOURS)

11 hours (BIOL 1214 or 1314, CHEM 1114, and MATH 1513) counted in the Major

Other hours needed **34**

II. Major in Molecular Biology 43

A. Required General Education 4

- ___ BIOL 1214 General Botany **OR**
- ___ BIOL 1314 General Zoology

B. Required in the Molecular Biology Concentration 33

- ___ BIOL 2243 Introduction to Biotechnology
- ___ BIOL 2345 General Microbiology
- ___ BIOL 3434 Genetics
- ___ BIOL 3553 Genomics and Bioinformatics
- ___ BIOL 3634 Human Physiology
- ___ BIOL 4313 Cell and Molecular Biology
- ___ BIOL 4545 Advanced Molecular Biology
- ___ BIOL 4765 Molecular Genetics
- ___ BIOL 4881 Biology Senior Seminar

C. Required Electives 6

Select 6 hours from the following:

- ___ BIOL 2773 Forensic Biology
- ___ BIOL 3013 Research, Methods and Bioethics
- ___ BIOL 3683 Immunology
- ___ BIOL 4113 Vertebrate Embryology

III. Related Work 25-27

A. Required General Education 7-9

- ___ CHEM 1114 General Chemistry I
- ___ MATH 1513 College Algebra **OR**
- ___ MATH 2825 Calculus and Analytic Geometry I

B. Required Related Work 12

- ___ CHEM 1214 General Chemistry II
- ___ CHEM 3114 Organic Chemistry I
- ___ PHYS 1114 General Physics I

Choose one of the following:

- ___ EHS 3703 Biostatistics and Environ Calculations
- ___ MATH 2213 Intro to Probability and Statistics
- ___ SOC 3833 Statistics for Social Sciences

Choose one of the following:

- ___ MATH 1713 Trigonometry
- ___ MATH 3583 Applied Statistics

C. Recommended Molecular Biology Electives

Choose from the following:

- ___ BIOL 2184 Human Anatomy
- ___ BIOL 3245 Comparative Vertebrate Anatomy
- ___ BIOL 3654 Histology
- ___ CHEM 4114 Organic Chemistry II
- ___ CHEM 4213 Biochemistry
- ___ CHEM 4221 Biochemistry Lab
- ___ EHS 3114 Epidemiology
- ___ MATH 2825 Calc and Analy Geom I
- ___ PHYS 1214 General Physics II
- ___ PHYS 3322 Medical Physics

IV. Minor (Required) 16-21

The minor with the Biology major may be selected by the student from minors whose majors lead to either BS or BA degrees.

V. Electives 0-6

VI. Total Hours Required 124

VII. Special Requirements

With departmental approval, students may omit MATH 1513 and begin with MATH 2825.

The OSRHE computer proficiency graduation requirement will be met through completion of one of the courses in the institution's general education computer literacy option (including equated or substituted courses) or testing out of the challenge exam for one of these courses (all courses may not have challenge exams), **OR** successful completion of an associate of arts or associate of science degree at an Oklahoma two-year college in which the computer skills requirement was met. Satisfaction of this requirement may not reduce or remove any program requirements.

Students beginning at East Central University in the fall 2007 semester or later who have earned less than sixty-four semester hours are required to take two classes with designated service-learning component. Students transferring to ECU for the first time in the fall 2007 semester or later with sixty-four or more semester hours will be required to take one class with a service-learning component.

MINOR _____
