

East Central University
BIOLOGY- Molecular Biology Conc.
Major Code= 0049

Student Name: _____	Student ID # _____
<input type="checkbox"/> 30 hours at ECU completed <input type="checkbox"/> 60 hours at Sr college completed <input type="checkbox"/> 40 hours upper level completed	Advisor: _____ <input type="checkbox"/> OSRHE Computer Proficiency Requirement met

Requirements	Hours	Hours
I. General Education	40	III. Related Work

A maximum of twelve hours may be counted in both the major/related work and general education.

Courses highlighted in blue are general education courses		
II. Major in Biology--Molecular Concentration		47-48
A. Required in Biology Core		19
<input type="checkbox"/> BIOL 1114	General Biology I	
<input type="checkbox"/> BIOL 1134	General Biology II	
<input type="checkbox"/> BIOL 3434	Genetics	

One of the following

<input type="checkbox"/>	BIOL 3514	General Physiology OR
<input type="checkbox"/>	BIOL 3634	Human Physiology
<input type="checkbox"/>	BIOL 4883	Biology Senior Seminar

C. Required in Molecular Biology Concentration:		19-20
<input type="checkbox"/>	BIOL 2344	General Microbiology
<input type="checkbox"/>	BIOL 3013	Research Methods & Bioethics
<input type="checkbox"/>	BIOL 4313	Cell and Molecular Biology
<input type="checkbox"/>	BIOL 4545	Advanced Molecular Biology

One of the following

<input type="checkbox"/>	BIOL 2184	Human Anatomy OR
<input type="checkbox"/>	BIOL 3245	Comparative Vertebrate Anatomy

D.	Required Electives. Select from:	9
<input type="checkbox"/>	BIOL 2243	Intro. To Biotechnology
<input type="checkbox"/>	BIOL 2773	Forensic Biology
<input type="checkbox"/>	BIOL 3553	Genomics and Bioinformatics
<input type="checkbox"/>	BIOL 3623	Biochemistry of Human Disease
<input type="checkbox"/>	BIOL 3683	Immunology
<input type="checkbox"/>	BIOL 4763	Biochemical Genetics
<input type="checkbox"/>	BIOL 4981-4	Seminar in Biology

	CHEM 1114	General Chemistry I
	CHEM 1214	General Chemistry II
	CHEM 3114	Organic Chemistry I
	CHEM 4213	Biochemistry
	CHEM 4221	Biochemistry Lab
	PHYS 1114	General Physics
	PHYS 1214	General Physics II
	MATH 1513	College Algebra

One of the following

	MATH 2825	Calculus & Analytical Geometry OR
	MATH 2613	Calculus for Bus, Life and Soc Sciences

One of the following

	EHS 3703	Biostatistics and Environmental Calc.
	MATH 1223	Intro. To probability and Statistics
	PSYCH 3833	Behavioral Science Statistics
	SOC 3833	Statistics for Social Sciences

IV. Minor	(not required)
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V. Electives	9-12
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An elective course is any college-level course not required by the degree that is utilized to reach the 120 credit hours required for degree completion. Elective courses are chosen according to the interest of the student and can be used in completion of a minor, certificate, or additional major.

VI. Total Hours Required	120
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VII. Special Requirements

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

Students interested in the 3+1 degree program (ECU-OSUCOM) can apply for early admission to the OSU College of Osteopathic Medicine and earn an ECU bachelors degree in biology by completing the first year of medical school at OSUCOM (D.O. degree). Complete information on the program can be obtained from the Records Office or the Department of Biological and Environmental Sciences.