

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

Student Name: _____	Student ID # _____
___ 30 hours at ECU completed	Advisor: _____
___ 60 hours at Sr college completed	_____
___ 40 hours upper level completed	___ OSRHE Computer Proficiency Requirement met

Requirements	Hours	Hours
I. General Education	40	III. Related Work
		33-35

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
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A. Required in Biology Core	19
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___	BIOL	1114	General Biology I
___	BIOL	1134	General Biology II
___	BIOL	3434	Genetics

One of the following

___	BIOL	3514	General Physiology OR
		BIOL 3634	Human Physiology
___	BIOL	4883	Biology Senior Seminar

C. Required in Molecular Biology Concentration:	19-20
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___	BIOL	2344	General Microbiology
___	BIOL	3013	Research Methods & Bioethics
___	BIOL	4313	Cell and Molecular Biology
___	BIOL	4545	Advanced Molecular Biology

One of the following

___	BIOL	2184	Human Anatomy OR
		BIOL 3245	Comparative Vertebrate Anatomy

D. Required Electives. Select from:	9
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___	BIOL	2243	Intro. To Biotechnology
___	BIOL	2773	Forensic Biology
___	BIOL	3553	Genomics and Bioinformatics
___	BIOL	3623	Biochemistry of Human Disease
___	BIOL	3683	Immunology
___	BIOL	4763	Biochemical Genetics
___	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.