Curriculum Map (REVISION 7.24.2012)

Course to Program/Discipline Level Student Learning Outcomes

B.S./M.S. Sci & Tech / Mol. Biol.-Biotechnology (NJ Center for Science, Technology & Mathematics)

The molecular biology/biotech curriculum prepares students to achieve the expected student learning outcomes (SLOs) identified by the program. The following table demonstrates how learning activities in the required courses map to these learning outcomes.

Key: I-Introduced R-Reinforced M-Mastery A-Assessment evidence collected

	Program/Discipline Student Learning Outcomes				
Required Courses	**SLO 1 Applied Knowledge** (KU1 to 4, GE V5)	**SLO 2 Holistic Knowledge** (KU1 to 4; GE K1, S3,4,5, V2, V4)	**SLO 3 Critical Thinking** (KU1,3,4; GE K1, S3,4,5)	**SLO 4 Ethics** (KU1,3; GE K1, S4, V2)	**SLO 5 Communication** (KU1,3; GE S1 to 5, V4)
GE 1000 Transition to Kean (NJCSTM majors only section)			I		I
GE 2024 Research & Technology (NJCSTM majors only section)	I	I	R	I, A	R,A
STME 1401 Chemical Systems I	I	I	I		
STME 1403 Math. & Computational Methods of Science I	I	I	I		
STME 1603 Math. & Computational Methods of	R	R, A	R, A		

Science II					
STME 2403 Math. & Computational Methods of Science III	R	R	R		
STME 2603 Probabilistic Methods in Science	I	I	I		
STME 1601 Chemical Systems II	I	I	I		R
STME 2401 Physical Systems	I	I	I		R
STME 2402 Physical Systems II	R	R	R		R
STME 2601 Living Systems	R	R	R	R	R
STME 2610 Current Issues in Science & Technology I	I	I	I	I	I
STME 3610 Current Issues in Science & Technology II	R	R , A	R,A	R	R, A
CHEM 2283 Quantitative Analysis	R	R	R		R
CHEM 2581 Organic Chemistry I	R	R			
CHEM 2583 Organic Chemistry Lab I	R	R	R	R	R
CHEM 2582 Organic Chemistry	R	R			

II					
CHEM 2584 Organic Chemistry Lab II	R	R	R	R	R
CHEM 3284 Instrumental Methods of Analysis WE	R	R	R	R	
BIO 3403 Anatomy / Physiology I	R	R	R	R	
BIO 3404 Anatomy / Physiology II	R	R	R	R	
BIO 3305 Principles of Microbiology	R	R	R	R	
BIO 3704 Principles of Genetics	R	R	R	R	
BIO 3705 Principles Genetics Lab	R	R	R	R	R
BIO 3820 Basic Tissue Culture	R	R	R	R	R
BIO 4105 Essentials of Biochemistry	R	R	R	R	
BIO 4700 Molecular Genetics	M	M	M	M	M
STME 5020 Ethics in Biotechnology	R	R		M, A	

STME 5103 Scientific Writing and Presentation	R	R		R	M
STME 4610 Science & Technology Seminar WE	R, A	R, A	M, A	R	M, A
STME 5140 Cellular Techniques	R,M,A	R	R,M,A	R	R
STME 5010 Molecular Cell Biology I	R	R, M			
STME 5240 Molecular Cell Biology II	R	R, M			
STME 5510 Biostats & Comp Analysis		R, M			
STME 5610 Advanced Seminar in Science and Technology	R	R	M	R	M
STME 5410 - 5415 Biotechnology Internship/Externship	M,A	M,A	M,A	R	M,A