Curriculum Map (REVISION 7.24.2012)

Course to Program/Discipline Level Student Learning Outcomes

B.S. Science & Technology / Engineering Science (NJ Center for Science, Technology & Mathematics)

The engineering science 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** (KU 1 to 4, GE S3, S5, V5)	**SLO 2 Holistic Knowledge** (KU1 to 4, GE S3, S5, V2, V4)	**SLO 3 Critical Thinking** (KU 1, GE S3, S4)	**SLO 4 Communication** (GE S1 to S3, V4)
GE 1000 Transition to Kean (NJCSTM majors only section)		I	I	I
GE 2024 Research and Technology (NJCSTM majors only section)		R	R	R, A
STME 1403 Mathematical and Computational Methods of Science I	I	I	I	I
STME 1603 Mathematical and Computational Methods of Science II	R, A	R ,A	R,A	R, A
STME 1401 Chemical Systems I	I	I	I	

STME 1601 Chemical Systems II	R	R	R	R
STME 2610 Current Issues in Science & Technology I	I	I	I	I
STME 2403 Math. & Computational Methods of Science III	R	R	R	R
2603 Probabilistic Methods in Science	R	R	R	R
STME 2401 Physical Systems	I	I	I	I
STME 2402 Physical Systems II	R	R	R	R
STME 3610 Current Issues in Science & Technology II	R,A	R,A	R,A	R, A
MATH 3451 Calculus III	R	R	R	
MATH 3452 Calculus IV	R	R	R	
MATH 3455 Differential Equations	M	R	R	
CPS 2231 Computer Organization & Programming and CPS 2232 Data Structures & Algorithm Analysis -or-	R	R	R	

CHEM 2581 Organic Chemistry Lecture I and CHEM 2582 Organic Chemistry Lecture II -or-				
CHEM 2581 Organic Chemistry Lecture I and CHEM 2583 Organic Chemistry Lab I and CHEM 3381 Physical Chemistry Lecture I and CHEM 3383 Physical Chemistry Lab I	R	R	R	R
PHYS 2097 Physics III	R	R	R	R
STME 4610 Science & Technology Seminar	M, A	M, A	M, A	M, A

**Up to 39 credits additionally of NJIT course credits are taken (selected with advisement of both NJIT and Kean NJCSTM faculty advisors) at NJIT toward the B.S. Sci & Tech / Engineering Sci degree. These credits span numerous different courses over any of the 10 subdisciplines of engineering; refer to NJIT website for course catalog.