

MATHEMATICS and SCIENCE HIGH SCHOOL COURSE REQUIREMENTS

For POSTSECONDARY ENGINEERING STUDENTS

In Addition to Other Local High School Course Requirements for Diploma

Recommended Sequence of High School Courses for Entry into Community Colleges Options: Engineering Career Certificate, Apprenticeship, Technician			
9th Grade	10th Grade	11th Grade	12th Grade
Science 9	Biology I	Chemistry*	Physics*
Algebra*	Geometry*	Algebra II*	Pre-Calculus or Calculus*

* Sequence may vary.

Required High School Courses for Engineering Associate Degree Programs Options: Career or Transfer to a Four-Year Bachelor Program			
9th Grade	10th Grade	11th Grade	12th Grade
Science 9	Biology I	Chemistry*	Physics*
Algebra*	Geometry*	Algebra II*	Pre-Calculus or Calculus*

* Sequence may vary.

Required High School Courses for Bachelor Engineering Programs			
UMASS	SMITH	WNEC	WPI
Algebra I&II	Algebra I&II	Algebra I&II	Algebra I&II
Geometry	Geometry	Geometry	Geometry
Pre-Calculus and/or	Pre-Calculus and/or	Pre-Calculus and/or	Pre-Calculus and/or
Calculus	Calculus	Calculus	Calculus
4 Years Total	4 Years Total	4 Years Total	4 Years Total
Physics			Biology
Chemistry	Physics	Physics or Chemistry	Chemistry
(2 lab sciences)	(1 lab science)	(1 lab science)	Physics
3 Years Total	3 Years Total	3 Years Total	(2 lab sciences)
Foreign Language -	Foreign Language -	Foreign Language not	Foreign Language not
2 years	3 years	required	required
Electives - 2 Arts and			
Humanities or Computer	Electives not required	Electives not required	Electives not required
Sciences			
SAT or ACT required	SAT or ACT required	SAT or ACT required	SAT or ACT required