East Stroudsburg University of Pennsylvania
Department of Mathematics

B.S. in Mathematics with
Concentration in Applied Chemical Mathematics
For Students Who Entered September 2016 or Later

University Requirements:

    120 credits

    2.0 or higher Quality Point Average

    30 or more credits of 300 level or higher courses; last 32 credits at ESU

    Pass basic mathematics competency

    42 credits in advanced course work

I. General Education Requirements……………………………………………………………..……**45 credits**

Required Courses: (9 credits)

ENGL 103 (3)	*Must be completed within first 45 credits at ESU*	_____
FYE (3)	*Must be completed within first year of study at ESU*	_____
Health (3)	*Must be completed within first 60 credits at ESU*	_____

Breadth Requirement: (36 credits)

Group A – Arts and Letters (12)

Must include at least 4 of the following :

English Language and Literature	_____
Fine Arts – Art, Communication Studies, Dance, Music, Theatre	_____
Modern Languages	_____
Performing Arts – Communication Studies, Dance, Music, Theatre	_____
Philosophy	_____

Group B – Science (12)

Must include at least 4 of the following*:

Biology	_____
Chemistry	_____
Computer Science	_____
Mathematics	_____
Physics	_____
Psychology	

* One of the four must have completion of the Math Competency as a prerequisite

Group C – Social Science (12)

Must include at least 4 of the following:

Economics	_____
Geography	_____
History	_____
Political Science	_____
Sociology	_____

Additional (Overlay) Requirements:

The following requirements will be embedded into courses across the University, including GE Breadth courses, courses within the major programs, and elective courses, and should not require that a student complete additional credits for graduation.

(W2) Level II Writing requirement (W3) Level III Writing requirement	_____
(G) Global Diversity and Citizenship (SLO I) requirement	_____
(C) Communication (SLO III) requirement	_____
(I) Information Literacy/Technology (SLO IV) requirement	_____
(A) Artistic Expression (SLO VI) requirement	_____

II. Mathematics Course Requirements………..……………………………………………………………...**36 Credits**

_____MATH 140 Calculus I	(4)	_____MATH 341 Diff Eqs (Option Course)	(3)
_____MATH 141 Calculus II	(4)	_____MATH 425 Math Modeling	(3)
_____MATH 220 Discrete Math Structures	(3)	_____MATH ELECTIVE (300 or higher)	(3)
_____MATH 240 Multivariate Calculus	(4)	_____MATH ELECTIVE (300 or higher)	(3)
_____MATH 311 Statistics I	(3)	_____MATH ELECTIVE (300 or higher)	(3)
_____MATH 320 Linear Algebra	(3)	(MATH 351, 430, 431, 499 excluded)	

Note: Three credits of MATH 486 – Internship in Applied Mathematics may be used as one MATH ELECTIVE

III. Co-requisites………………………………………………………………………………………**12 Credits**

_____CPSC 101 Comp & Use in Science	(3)	_____CMST 111 Speech Communication	(3)
_____CPSC 130 Intro Comp Programming	(3)	_____ENGL 204 Technical Writing	(3)

IV. Chemistry Requirements…..…………………………………..…………………………………**11 Credits**

_____CHEM 121 General Chemistry I	(3)	_____CHEM 126 General Chemistry II Lab	(1)
_____CHEM 123 General Chemistry I Lab	(1)	_____CHEM 300 or Higher	(3)
_____CHEM 124 General Chemistry II	(3)		

V. A grade of C or better must be earned in all required courses (math, co-requisites and options courses)

VI. Free Electives………...…………………………………………………………….…………….…………**16 Credits**