



New Jersey Center for Science, Technology & Mathematics (NJCSTM)

**Bachelor & Master of Science in Science & Technology Combined Degree Program
Five Year Pathway to Graduation in Computational Mathematics Option**

This prototype should be used only as a guide; consult with your NJCSTM academic advisor for individual plans.

Name: _____ Date of Matriculation _____

Student ID: _____ NJCSTM option **30106 Computational Mathematics**

FRESHMAN YEAR / NJCSTM-1

Summer Session II Incoming Yr-1

GE 1000 Transition to Kean NJCSTM section ___1___

Fall Semester Yr-1

ENG 1030 Composition	3
HIST 1062 Worlds of History	3
STME 1403 Math & Computational Methods I	4
STME 2610 Current Issues Sci & Tech I	1
STME 1401 Chemical Systems I	4

Spring Semester Yr-1

STME 1601 Chemical Systems II	4
GE 2024 Res & Tech (NJCSTM section)	3
CPS 2231 Computer Organization and Programming	4
STME 1603 Math & Comp Methods II	4

Total Credits 16 (includes entering summer credit)

Total Credits 15

SOPHOMORE YEAR / NJCSTM-2

Fall Semester Yr-2

STME 2601 Living Systems	4
STME 2401 Physical Systems (Physics I)	4
STME 2403 Math & Comp Methods III	4
MATH 3120 Combinatorics	3

Spring Semester Yr-2

MATH 3451 Calculus III	3
ENG 2403 World Literature	3
COMM 1402 Speech Communication	3
CPS 2232 Data Structures & Algorithm Analysis	4
Major Elective 1	3

Total Credits 15

Total Credits 16

JUNIOR YEAR / NJCSTM-3

Fall Semester Yr-3

MATH 3452 Calculus IV	3
STME 2603 Probabilistic Methods of Science	4
Approved GE Humanities	3
Major Elective 2	3
Free Elective 1	3

Total Credits 16

Spring Semester Yr-3

STME 3610 Current Issues in Sci & Tech II	1
MATH 3455 Differential Equations	3
CPS 3250 Computer Operating Systems	3
Major Elective 3	3
Free Elective 2	3
Free Elective 3 (3000+ level)	3

Total Credits 16

SENIOR YEAR / NJCSTM-4

Fall Semester Yr-4

CPS 5965 High Performance Computing (or) MATH 5630 Computational Science I	3
CPPS 4301 Software Engineering (or CPS 3962)	3
MATH 4805 Math Modeling with Applications	3
MATH 3940 Numerical Analysis	3
Free Elective 4 (3000+ level)	3

Total Credits 15

Spring Semester Yr-4

MATH 4510 Partial Differential Equations (or) MATH 5631 Computational Science II	3
STME 4610 Sci & Tech Seminar (Capstone)	3
Major Elective 4	3
Free Elective 5 (3000+ level)	3
Approved GE Social Sciences GE	3

Total Credits 15

TOTAL CREDITS REQUIRED FOR THIS B.S. Science & Technology OPTION: 124 S.H.

**MASTERS YEAR / NJCSTM-5 MS SCIENCE & TECHNOLOGY / COMPUTATIONAL MATH
PROGRAM CODE: 30962**

Summer Session I

ID 5700 Independent Study	3
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Summer Session II

Graduate Elective	3
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Fall Semester Yr-5

CPS 5965 High Performance Computing (or) MATH 5630 Computational Science I	3
ID 5800 Thesis	3
Graduate Elective	3
Graduate Elective	3

Total Credits 12

Spring Semester Yr-5

MATH 4510 Partial Differential Equations (or) MATH 5631 Computational Science II	3
ID 5800 Thesis	3
STME 5103 Sci Writing (Fall only)	3
Graduate Elective	3

Total Credits 12

TOTAL CREDITS REQUIRED FOR THIS M.S. Science & Technology OPTION: 30 S.H.