PROPOSED
Chemistry - ACS Major (68-71 cr. hrs.)
(72-75 cr. hrs. including required supporting courses)

Track A Requirements: 56-59 cr. hrs.
CHEM 121 General Chemistry I (5 cr) OR
   CHEM 120 Introduction to General Chemistry (6 cr)
CHEM 122 General Chemistry II (5 cr)
CHEM 231 Organic Chemistry I (3 cr)
CHEM 232 Organic Chemistry II (3 cr)
CHEM 236 Organic Chemistry Lab I (1 cr)
CHEM 237 Organic Chemistry Lab II (1 cr)
CHEM 250 Foundations of Analytical Chemistry (4 cr)
CHEM 261 Laboratory Safety (2 cr)
CHEM 322 Inorganic Chemistry (includes a 1 cr. lab portion) (4 cr)
CHEM 341 Chemical Thermodynamics and Kinetics (3 cr) OR
   CHEM 342 Molecular Structure and Spectroscopy (3 cr)
CHEM 360 Foundations of Biochemistry (4 cr) OR
   CHEM 361 Biochemistry I (3 cr)
CHEM 380 Chemistry Junior Seminar (1 cr)
CHEM 480 Chemical Communications and Research (writing intensive) (1 cr)
BIOL 150 Introduction to Biology (3 cr)
MATH 167 Calculus II (4 cr)
MATH elective (3-4 cr)*
PHYS 121 and PHYS 122 General Physics I, II: Algebra-based (10 cr) OR
   PHYS 131 and PHYS 132 General Physics I, II: Calculus-based (10 cr)

In Depth Electives: 12 credits (incl. at least 6 lab credits, one of which must be CHEM 366 or 402).
CHEM 311 Polymer Chemistry (3 cr)
CHEM 316 Polymer Laboratory (1 cr)
CHEM 333 Organic Synthesis (2 cr)
CHEM 334 Organic Synthesis Lab (2 cr)
CHEM 341 Chemical Thermodynamics and Kinetics (3 cr) OR
   CHEM 342 Molecular Structure and Spectroscopy (3 cr)
CHEM 355 Separation Science Laboratory (1 cr)
CHEM 356 Chemical Instrumentation Lab (writing intensive) (1 cr)
CHEM 362 Biochemistry II (3 cr)
CHEM 366 Biochemistry Laboratory (writing intensive) (1 cr)
CHEM 378 Semester Abroad (1-4 cr)
CHEM 379 Internship (1-4 cr)
CHEM 401 Advanced Chemistry Lab I (writing intensive) (1 cr)
CHEM 402 Advanced Chemistry Lab II (writing intensive) (1 cr)
CHEM 422 Advanced Inorganic Chemistry (writing intensive) (3 cr)
CHEM 461 Pharmacology (3 cr)
CHEM 489 Special Topics in Chemistry (1-4 cr)
CHEM 495 Undergraduate Research (1-3 cr)
BIOL 451 Molecular Biology (4 cr)
PHYS 465 Quantum Mechanics (4 cr)

Required Supporting Courses: 4 cr. hrs.
MATH 166 Calculus I (4 cr)
*Math electives could include: MATH 236: Discrete Mathematics, MATH 256: Linear Algebra, MATH 266: Calculus III, MATH 326: Applied Statistics, MATH 346: Numerical Analysis I, or PHYS 361: Mathematics of Physics & Engineering. All have a pre-requisite no higher than MATH 167.

**Track B Requirements: 56 - 58 cr. hrs.**

CHEM 130 Introduction to Organic Chemistry (5 cr)
CHEM 233 Foundations of Organic Chemistry (5 cr)
CHEM 240 Principles of General Chemistry (4 cr)
CHEM 250 Foundations of Analytical Chemistry (4 cr)
CHEM 261 Laboratory Safety (2 cr)
CHEM 322 Inorganic Chemistry (includes a 1 cr. lab portion) (4 cr)
CHEM 333 Organic Synthesis (2 cr)
CHEM 334 Organic Synthesis Lab (2 cr)
CHEM 341 Chemical Thermodynamics and Kinetics (3 cr) OR
   CHEM 342 Molecular Structure and Spectroscopy (3 cr)
CHEM 360 Foundations of Biochemistry (4 cr) OR
   CHEM 361 Biochemistry I (3 cr)
CHEM 380 Chemistry Junior Seminar (1 cr)
CHEM 480 Chemical Communications and Research (writing intensive) (1 cr)
BIOL 150 Introduction to Biology (3 cr)
MATH 167 Calculus II (4 cr)
MATH elective (3-4 cr)*
PHYS 121 and PHYS 122 General Physics I, II: Algebra-based (10 cr) OR
   PHYS 131 and PHYS 132 General Physics I, II: Calculus-based (10 cr)

**In Depth Electives: 12 credits (incl. at least 3 lab credits, one of which must be CHEM 366 or 402).**

CHEM 311 Polymer Chemistry (3 cr)
CHEM 341 Chemical Thermodynamics and Kinetics (3 cr) OR
   CHEM 342 Molecular Structure and Spectroscopy (3 cr)
CHEM 355 Separation Science Laboratory (1 cr)
CHEM 356 Chemical Instrumentation Lab (writing intensive) (1 cr)
CHEM 362 Biochemistry II (3 cr)
CHEM 366 Biochemistry Laboratory (writing intensive) (1 cr)
CHEM 378 Semester Abroad (1-4 cr)
CHEM 379 Internship (1-4 cr)
CHEM 401 Advanced Chemistry Lab I (writing intensive) (1 cr)
CHEM 402 Advanced Chemistry Lab II (writing intensive) (1 cr)
CHEM 411 Polymer Science (3 cr)
CHEM 416 Polymer Laboratory (1 cr)
CHEM 422 Advanced Inorganic Chemistry (writing intensive) (3 cr)
CHEM 461 Pharmacology (3 cr)
CHEM 489 Special Topics in Chemistry (1-4 cr)
CHEM 495 Undergraduate Research (1-3 cr)
BIOL 451 Molecular Biology (4 cr)
PHYS 465 Quantum Mechanics (4 cr)

**Required Supporting Courses: 4 cr. hrs.**

MATH 166 Calculus I (4 cr)

*Math electives could include: MATH 236: Discrete Mathematics, MATH 256: Linear Algebra, MATH 266: Calculus III, MATH 326: Applied Statistics, MATH 346: Numerical Analysis I, or PHYS 361: Mathematics of Physics & Engineering. All have a pre-requisite no higher than MATH 167.