CHEM Major Course Checklist

I. Pre-Requisite Classes

Chemistry
General Chemistry – (or AP Credit)
   ______ CHEM 1601 + Lab
   ______ CHEM 1602 + Lab

Organic Chemistry
   ______ CHEM 2221 + Lab (OR CHEM 2211) (pre-req CHEM 1602)
   ______ CHEM 2222 + Lab (OR CHEM 2212)

BSCI 1510 – not explicitly part of the major, but is a pre-requisite for BSCI 2520

Math
   ______ Calculus A – MATH 1200 or 1300
   ______ Calculus B – MATH 1201 or 1301

Physics
   ______ Physics A – PHYS 1501 or 1601 + Lab, PHYS 1911
   ______ Physics B – PHYS 1502 or 1602 or 1912 + Lab

II. Specialized Chemistry Classes

Analytical Chemistry
   ______ CHEM 2100 and Lab (Fall)

Physical Chemistry
   ______ CHEM 3300- Physical Chemistry: Quantum Mechanics, Spectroscopy, and Kinetics (Fall)
      OR 3310 – Physical Chemistry: Chemical Thermodynamics and Equilibrium (Spring)
   ______ CHEM 3315 – Physical Chemistry Lab (Spring)

Biochemistry
   ______ BSCI 2520 – Biochemistry (pre-req BSCI 1510 and CHEM 2221)

Inorganic Chemistry
   ______ CHEM 3010 (Fall – pre- or co-req of PCHEM)
III. Research – Pick one Path

Capstone –
______ CHEM 4965 (Fall of 4th year)
______ CHEM 4966 (Spring of 4th year)

OR

Honors – GPA of 3.3 overall and 3.4 in chemistry classes
______ CHEM 3980 (Spring of 3rd year)
______ CHEM 4980 (Fall of 4th year)
______ CHEM 4999 (Spring of 4th year)
______ Defend an Honors Thesis Spring of 4th Year

IV. CHEM In-depth Courses – 2 classes required (6 credit hours)

General Elective #1 _____________________________

General Elective #2 _____________________________

Some options:
- CHEM 3860 (3 credit hours can count towards In-depth classes)
- CHEM 2610 – Introduction to Nanochemistry (spring)
- CHEM 3020 – Intro to Bioinorganic (spring)
- CHEM 3120 – Instrumental Analytical Chemistry (spring)
- CHEM 3135W – Forensic Analytical Chemistry (spring) Also a writing class!
- CHEM 3220 – Spectroscopic Identification (fall)
- CHEM 3630 – Macromolecular Chemistry (fall)
- CHEM 3710 – Bioorganic Chemistry (fall)
- CHEM 4050 – Introduction to Organometallic Chemistry (fall)
- CHEM 4230 – Physical Organic Chemistry (spring)
- CHEM 4720 – Drug Design and Development (spring)