Secondary Education/Chemistry Majors

Students in the Lynch School of Education who are pursuing an education major leading to certification in teaching chemistry at the secondary level are required to obtain both a major in chemistry in the College of A&S, and a major in secondary education in the Lynch School of Education. Because of the additional requirements of this double program, the chemistry courses required of the major must be taken in the sequence shown below. It is absolutely necessary that prospective secondary ed/chemistry majors take general chemistry in the freshman year. It is beneficial to take physics and calculus in the first year as well; however, an alternative sequence of courses is provided for students who do not take physics until sophomore year.

Example #1 – Physics & Calculus in Year 1

First Year

Fall
- APSY 1030 Child Growth and Development
- CHEM1109 General Chemistry I
- CHEM1111 General Chemistry Laboratory I
- PHYS2200 Physics I
- PHYS2050 Physics Laboratory I
- MATH1102 Calculus I
- Core #1

Spring
- APSY 10031 Family, School, and Society
- CHEM1110 General Chemistry II
- CHEM1112 General Chemistry Laboratory II
- PHYS2201 Physics II
- PHYS2051 Physics Laboratory II
- MATH1103 Calculus II
- Core #2

Second Year

Fall
- EDUC 1044 Working with Special Needs Students
- CHEM2231 Organic Chemistry I
- CHEM2233 Organic Chemistry Laboratory I
- CHEM3351 Analytical Chemistry
- CHEM3353 Analytical Chemistry Laboratory
- MT 202 Multivariable Calculus
- Core #3
Spring
ERME 1060 Classroom Assessment (take with EDUC 2211)
EDUC 2211 Secondary Curriculum & Instruction (take with ERME 1060)
CHEM2232 Organic Chemistry II (MWF)
CHEM2234 Organic Chemistry Laboratory II
CHEM3322 Intro. Inorganic Chemistry (MWF)
CHEM3324 Inorganic Chemistry Laboratory
Core #4
EDUC2151 Pre-Practicum #1 (take with EDUC2211 on Tuesdays and Thursdays)
EDUC2131 Inquiry Seminar I

Third Year
Fall
EDUC 6300 Secondary Science Methods of Teaching
APSY 2041 Adolescent Psychology
CHEM4475 Physical Chemistry I
CHEM4465 Introduction to Biochemistry
Core #5
EDUC3152 Pre-practicum #2
EDUC 3132 Inquiry Seminar #2

Spring
EDUC 3323 Secondary Reading Instruction
CHEM4476 Physical Chemistry II
CHEM5552 Advanced Methods in Chemistry I
CHEM5554 Advanced Methods in Chemistry Laboratory I
Core #6
Core #7
EDUC 3153 Pre-practicum #3
EDUC 3133 Inquiry Seminar #3

Fourth Year
Fall
EDUC 4250 Full Practicum (12 credits, 5 days per week)
EDUC 4231 Senior Inquiry Seminar
EDUC 6347 Teaching Bilingual Students

Spring
Core #8
Core #9
Electives
Example #2 – Calculus in Year 1 and Physics in Year 2

First Year

Fall
APSY 1030 Child Growth and Development
CHEM1109 General Chemistry I
CHEM1111 General Chemistry Laboratory I
MATH1102 Calculus I
Core #1
Core #2

Spring
APSY 10031 Family, School, and Society
CHEM1110 General Chemistry II
CHEM1112 General Chemistry Laboratory II
MATH1103 Calculus II
Core #3
Core #4

Second Year

Fall
EDUC 1044 Working with Special Needs Students
CHEM2231 Organic Chemistry I
CHEM2233 Organic Chemistry Laboratory I
PHYS2200 Physics I
PHYS2050 Physics Laboratory I
MT 202 Multivariable Calculus
Core #5

Spring
ERME 1060 Classroom Assessment (take with EDUC 2211)
EDUC 2211 Secondary Curriculum & Instruction (take with ERME 1060)
CHEM2232 Organic Chemistry II (MWF)
CHEM2234 Organic Chemistry Laboratory II
PHYS2201 Physics II (MWF)
PHYS2051 Physics Laboratory II
Core #6
EDUC2151 Pre-Practicum #1 (take with EDUC2211 on Tuesdays and Thursdays)
EDUC2131 Inquiry Seminar I

Third Year

Fall
EDUC 6300 Secondary Science Methods of Teaching
APSY 2041 Adolescent Psychology

CHEM3351 Analytical Chemistry
CHEM3353 Analytical Chemistry Laboratory
CHEM4475 Physical Chemistry I
CHEM4465 Introduction to Biochemistry
EDUC3152 Pre-practicum #2
EDUC 3132 Inquiry Seminar #2

Spring
EDUC 3323 Secondary Reading Instruction
CHEM3322 Intro. Inorganic Chemistry
CHEM3324 Inorganic Chemistry Laboratory
CHEM4476 Physical Chemistry II
Core #7
Core #8
EDUC 3153 Pre-practicum #3
EDUC 3133 Inquiry Seminar #3

Fourth Year

Fall
EDUC 4250 Full Practicum (12 credits, 5 days per week)
EDUC 4231 Senior Inquiry Seminar
EDUC 6346 Teaching Bilingual Students

Spring
CHEM5552 Advanced Methods in Chemistry I
CHEM5554 Advanced Methods in Chemistry Laboratory I
Core #9
Electives