

Chemistry Course Planner for 5-Year Urban Secondary Education Students

The College of New Jersey

School of Education ~ Dept. of Educational Administration and Secondary Education - Fall 2021

5-Year Course Sequence

Urban Secondary Education

(boxes in yellow represent courses in the Urban Education program)

Year 1

Fall		Spring	
Course	Goal	Course	Goal
<i>FYW 102 Academic Writing or FYS1XX First Seminar (LL)</i>	<i>First Year Seminar or Writing Requirement</i>	<i>SED 099: College Seminar</i>	<i>Secondary Education (0 units)</i>
		<i>EFN 299: Schools, Community & Culture (field placement)</i>	<i>Secondary Education</i>
<i>CHE 099 Orientation to Chem</i>	<i>Content Major Requirement (0 units)</i>		
<i>CHE 201 General Chem I or HON 201 Honors Gen Chem I</i>	<i>Content Major Requirement</i>	<i>CHE 202 General Chem II or HON 202 Honors Gen Chem I</i>	<i>Content Major Requirement</i>
<i>PHY 201 Physics I</i>	<i>Content Major Correlate</i>	<i>MAT 128 Calc B</i>	<i>Content Major Correlate</i>
<i>MAT 127 Calc A</i>	<i>Content Major Correlate</i>	<i>PHY 202 Physics II</i>	<i>Content Major Correlate</i>

Year 2

Fall		Spring	
Course	Goal	Course	Goal
<i>CHE 331 Organic Chemistry I</i>	<i>Content Major Core</i>	<i>CHE 332 Organic Chemistry II</i>	<i>Content Major Core</i>
<i>2nd language 101 (Spanish recommended) or elective</i>	<i>Urban Education/Language Requirement</i>	<i>SED 224: Adolescent Development (field placement)</i>	<i>Secondary Education</i>
<i>CHE 310 Analytical Chemistry</i>	<i>Content Major Core</i>	<i>Liberal Learning (Arts, World Views, or History if needed)</i>	<i>Liberal Learning</i>
<i>SPE 103: Social and Legal Foundations of Special Education</i>	<i>Secondary Education</i>	<i>2nd language 102 (Spanish recommended) or elective</i>	<i>Urban Education/Language Requirement</i>
<i>CHE 316 Sophomore Chem Seminar</i>	<i>Content Major Core (0.25 units)</i>		

Year 3

<i>Fall</i>		<i>Spring</i>	
<i>Note: You must select your Urban Concentration (TESL, Special Education, or Literacy) in your 3rd year. See the "Urban Concentrations" document for details.</i>			
<i>Course</i>	<i>Goal</i>	<i>Course</i>	<i>Goal</i>
<i>Liberal Learning (Arts, World Views, or History if needed)</i>	<i>Liberal Learning</i>	<i>EFN 357: Investigating Systemic Inequalities Impacting Urban Education (field placement)</i>	<i>Urban Education</i>
<i>CHE 451 Inorganic Chemistry</i>	<i>Content Major Core</i>	<i>CHE 4XX (ACS) or CHE 3XX/4XX (non-ACS, one 300-level allowed)</i>	<i>Chemistry Option</i>
<i>CHE 372 Chem Thermodynamics</i>	<i>Content Major Core</i>	<i>CHE 430 Biochemistry (ACS) or CHE 350 Biochemistry (non-ACS)</i>	<i>Content Major Core</i>
<i>2nd language 103 (Spanish recommended) or elective</i>	<i>Urban Education/Language Requirement</i>	<i>EFN 398: Historical and Political Context of Schools</i>	<i>Urban Education</i>
<i>CHE 317 Junior Chem Seminar</i>	<i>Content Major Core (0.25 units)</i>		

Year 4

<i>Fall</i>		<i>Spring</i>	
**Note: Students who choose the TESL Concentration will need to take ESLM 577 in the Fall (instead of ESLM 578) and take ESLM 587 in the Spring.			
<i>Course</i>	<i>Goal</i>	<i>Course</i>	<i>Goal</i>
<i>ELE 302: Intro to Teacher Research</i>	<i>Professional Education</i>	<i>SED 399: Pedagogy in Schools (field placement)</i>	<i>Secondary Education (1.5 units)</i>
<i>EFN 311: Working within Urban Communities</i>	<i>Urban Education</i>	<i>PHY 390: Discipline-Specific Methods</i>	<i>Secondary Education</i>
<i>ESLM 578: Theory and Practice in ESL (3)</i>	<i>Urban Graduate</i>	<i>RAL 328: Reading in Secondary Education</i>	<i>Secondary Education (0.5 units)</i>

<i>CHE 4XX (ACS) or CHE 3XX/4XX (non-ACS, one 300-level allowed)</i>	<i>Chemistry Option</i>	<i>CHE 371 Quantum Chemistry</i>	<i>Content Major Core</i>
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- This program is possible in five-years if the student is Calculus-ready, and the above plan assumes Calculus readiness. If the student places into Pre-Calculus, it is advised that the student finish the Calculus sequence (MAT 127 and MAT 128) prior to their second year. This may require taking a course over the summer. Correlate courses in Mathematics and Physics are available at TCNJ during summer session.
- If a student is required to take FYW 102 Academic Writing, they can replace the Urban Education course in the Spring semester of their first year with FYS 1XX. The Urban Education course (either EFN 299 or SED 224) could be taken in slots marked for an elective.
- If a student enters with college credit for one of the courses above (e.g. CHE 201, MAT 127, or a Liberal Learning course) or places into SPA 102 or 103, the extra course slot can be used to address a required Liberal Learning course (in either Arts, World Views, or History).
- If a student is unable to enroll in CHE 310 during the Fall semester of their second year, they may plan to take this course in the subsequent semester in place of the Liberal Learning course.
- The above plan includes slots for two Liberal Learning courses. A third is needed, which can be taken as overload or during a summer semester. Please note that the three required Liberal Learning courses in Literary Visual or Performing Arts, World Views and Ways of Knowing, and Social Changes in a Historical Perspective must also fulfill the Gender and Global Perspective Civic Responsibilities.
- If student opts to do the ACS-certified degree with research, they will need to plan to complete two total units of CHE 493 Independent Study.
- For students completing a non-ACS degree, they are allowed one 300-level advanced Chemistry option course. In addition to CHE 3XX courses, this requirement can be fulfilled by courses outside the department, such as PHY 306 Mathematical Physics, MAT 205 Linear Algebra, or PHY 321 Modern Physics upon approval by the Department Chair.

SUMMER COURSES: Take 2 of your Concentration courses before starting Year 5.

Year 5

<i>Fall</i>		<i>Spring</i>	
<i>Course</i>	<i>Goal</i>	<i>Course</i>	<i>Goal</i>
<i>SCED 695: Internship II (Student Teaching) (6)</i>	<i>Professional Education</i>	<i>SPED 631: Transition and Community Based Instruction (3)</i>	
<i>SCED 667: Capstone (3)</i>	<i>Professional Education</i>	<i>EDFN 627: Critical Pedagogy</i>	
		<i>SCED 700: Comprehensive Exam (0 credits)</i>	<i>Co-Requisite with EDFN 627</i>
		<i>Concentration Course (3)</i>	
		<i>Concentration Course (3)</i>	

- *Students are encouraged to take courses during the May or summer semester.*
- *The information literacy goal is met through a college-wide experience.*
- *This course sequence is a recommended sequence, except for your urban education courses in years three to five, which have to be taken as suggested.*