

Youngstown State University

B.A. Degree in Chemistry*

YEAR ONE	<u>SH</u>	YEAR TWO	<u>SH</u>
<u>Fall Semester</u>		<u>Spring Semester</u>	
CHEM 1515/L , GenChem1/Lab	4	CHEM 1516/L , GenChem.2/Lab	4
CHEM 1515R , Recitation GenChem 1	1	CHEM 1516R , Recitation GenChem 2	1
MATH 1571 ¹ , Calculus 1	4	MATH 1572, Calculus 2	4
ENGL 1550 ¹ , Writing 1	3	ENGL 1551, Writing 2	3
A&S Foreign Language ¹	<u>4</u>	A&S Foreign Language	<u>4</u>
Total	16	Total	16
<u>Fall Semester</u>		<u>Spring Semester</u>	
CHEM 3719/L , OrganicChem 1/Lab	4	CHEM 3720/L , OrganicChem 2/Lab	4
CHEM 3719R , Recitation Org Chem 1	1	CHEM 3720R , Recitation Org Chem 2	1
CHEM 2604/L , QuantAnalysis	5	PHYS 2611/L ² , GenPhysics 2/Lab	5
PHYS 2610/L ² , GenPhysics 1/Lab	<u>5</u>	GER ³	<u>6</u>
Total	15	Total	16
<u>Fall Semester</u>		<u>Spring Semester</u>	
CHEM 3737/L or 3739/L , Biophysical Chem or Physical Chem 1 ⁴	4	Upper-Level CHEM Electives ⁶	3
GER	6	GER	8
Electives ⁵	<u>6</u>	Upper-Level ⁷ Electives or GER	<u>4</u>
Total	16	Total	15
<u>Fall Semester</u>		<u>Spring Semester</u>	
CHEM 4850 Chemistry Research	1	Upper-Level CHEM Electives	3
Upper-Level CHEM Electives	3	Upper-Level Electives	<u>12</u>
GER Speech – COMST 1545	3	Total	15
Upper-Level Electives	<u>8</u>		
Total	15		

*124 total semester hours (sh) required for the BA degree, of which 39 sh are in Chemistry.

¹Placement exams in English, Math, and Foreign Language (FNLG) are required before registration in classes. ENGL 1550 & 1551 must be completed by 62 sh. FNLG through level 2600 required unless satisfied through placement exam.

²Courses in physics may be applied to the GER Natural Science (NS) requirement.

³GER requirements in the Knowledge Domain: 2-3 courses in Societies & Institutions (SI); 2 courses in Personal & Social Responsibilities (PS); 2-3 courses in Artistic & Literary Perspectives (AL). For BA CHEM majors, SI + PS + AL must equal seven courses, all other requirements for the GER Knowledge Domain are met through the major.

⁴CHEM 3739 (but NOT 3737), Physical Chem 1, is designated as both a writing-intensive and critical thinking-intensive course, and so covers half of the Basic Skills GER requirements in these areas. In order to graduate, students are required to take a total of two writing-intensive courses, two critical thinking-intensive courses, and one oral communication-intensive course. This requirement can be met by taking courses so designated (see *Schedule of Classes*) from the major, electives, or GER courses in the Knowledge Domain.

⁵Electives must include courses to fulfill the student's chosen minor.

⁶In addition to the BA core, BA majors must complete *nine (9)* hours of upper-level chemistry electives (from the list below). All majors must also complete the capstone course, 4850 (1 hour).

⁷Students must complete at least 48 sh of upper-division courses (3700 or higher) to graduate from YSU with a baccalaureate degree. BA Chemistry students will complete 24 of these 48 sh as part of the requirements for the major.

B.A. CHEMISTRY Electives

[3729](#) Inorganic Chemistry 1 (3)

[3740/L](#) Physical Chemistry 2 (4)

[3764](#) Chemical Toxicology (2)

[3785](#), [3785L](#) Biochemistry 1/Lab (3+1)

[3786](#) Biochemistry 2 (3)

[4850L](#) Chemistry Research Laboratory (2-3)

[5804/L](#) Chemical Instrumentation/Lab (4)

[5821](#) Intermediate Organic Chemistry (3)

[5822](#) Advanced Organic Lab (4)

[5830](#) Intermediate Inorganic Chemistry (2)

[5831](#) Inorganic Lab (2)

[5832/L](#) Solid State Structural Methods (3)

[5836](#) Quantum Chemistry (3)

[5861/L](#), [5862/L](#) Polymer Science 1, 2 (3+3)

[5876](#) Enzyme Analysis (2)

NOTES:

- Grades of C or better are required in the major and minor.
- Classes taken or repeated out of sequence will not count toward graduation. **Check prerequisites.**
- Residency rule states that the last 30 sh must be completed at YSU; 16sh in major, 21 sh in upper division courses.
- "Intent to Graduate" Form must be filed by 93 sh.