

# Youngstown State University

## B.A. Degree in Chemistry\*

### Pre-Med Track

#### YEAR ONE

##### Fall Semester

CHEM <a href="#">1515/L</a> , GenChem1/Lab	4
CHEM <a href="#">1515R</a> , Recitation Gen Chem 1	1
MATH 1571 <sup>1</sup> , Calculus 1	4
ENGL 1550 <sup>1</sup> , Writing 1	3
Foreign Language <sup>1</sup>	<u>4</u>
<b>Total</b>	<b>16</b>

#### SH

##### Spring Semester

CHEM <a href="#">1516/L</a> , GenChem.2/Lab	4
CHEM <a href="#">1516R</a> , Recitation Gen Chem 2	1
MATH 1572, Calculus 2	4
ENGL 1551, Writing 2	3
Foreign Language	<u>4</u>
<b>Total</b>	<b>16</b>

#### SH

#### YEAR TWO

##### Fall Semester

CHEM <a href="#">3719/L</a> , Organic Chem 1/Lab	4
CHEM <a href="#">3719R</a> , Recitation/Org Chem 1	1
CHEM <a href="#">2604/L</a> , QuantAnalysis/Lab	5
PHYS 2610/L <sup>2</sup> , GenPhysics 1/Lab	<u>5</u>
<b>Total</b>	<b>15</b>

##### Spring Semester

CHEM <a href="#">3720/L</a> , OrganicChem 2/Lab	4
CHEM <a href="#">3720R</a> , Recitation/Org Chem 2	1
PHYS 2611/L <sup>2</sup> , GenPhysics 2/Lab	5
BIOL 2601/L <sup>3</sup> , Molecules and Cells	4
GER <sup>4</sup>	<u>3</u>
<b>Total</b>	<b>17</b>

#### YEAR THREE

##### Fall Semester

CHEM <a href="#">3785</a> , Biochemistry 1	3
CHEM <a href="#">3785L</a> , Biochemistry 1 Lab	1
BIOL 2602/L, Organisms and Ecology	4
BIOL 3702/L <sup>5</sup> , Microbiology	4
GER	<u>4</u>
<b>Total</b>	<b>16</b>

##### Spring Semester

CHEM <a href="#">3786</a> , Biochemistry 2	3
CHEM <a href="#">5876</a> , Enzyme Analysis	2
CHEM 3739/L, Physical Chem 1/Lab	4
BIOL 3711 or 3721 <sup>5</sup> , Cell Biology or Genetics	3
GER	<u>4</u>
<b>Total</b>	<b>16</b>

#### YEAR FOUR

##### Fall Semester

CHEM <a href="#">4850</a> , Chemistry Research	1
BIOL 3730/L, Human Physiology	5
Upper Level GER	6
GER Speech – COMST 1545	<u>3</u>
<b>Total</b>	<b>15</b>

##### Spring Semester

Upper-Level Electives <sup>6</sup>	6
GER	<u>7</u>
<b>Total</b>	<b>13</b>

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

<sup>1</sup>Placement 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.

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

<sup>3</sup>Biology minor is included in the curriculum and is strongly recommended.

<sup>4</sup>GER 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.

<sup>5</sup>BIOL 3702L, Microbiology Laboratory is designated as a writing-intensive course, and BIOL 3721, Genetics, is designated as a critical thinking-intensive course. In order to meet the Basic Skills GER requirements, students completing these two biology courses would need to take one additional writing-intensive course, one additional critical thinking-intensive course, and one oral communication-intensive course, which they should take from their electives or GER courses in the Knowledge Domain.

<sup>6</sup>Students must complete at least 48 sh of upper-division courses (3700 or higher) to graduate from YSU with a baccalaureate degree. BA Chemistry/Pre-Med students will complete 36 of these 48 sh as part of the Chemistry and Biology requirements for the major. It is recommended that students choosing to take upper level electives in Chemistry select courses from the list below.

#### **B.A. CHEM/PRE-MED ELECTIVES:**

[3729](#) Inorganic Chemistry 1 (3)  
[3764](#) Chemical Toxicology (2)  
[4850L](#) Chemistry Research Laboratory (2-3)  
[5821](#) Intermediate Organic Chemistry (3)  
[5822/L](#) Advanced Organic Lab (4)  
[5832/L](#) Solid State Structural Methods (3)  
[5861/L](#), [5862/L](#) Polymer Science 1, 2 (3+3)

#### **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.