

## Department of Chemistry and Biochemistry 2020

### **Requirements for Chemistry Major CC**

**Suggested Year of Completion  
(14.50)**

#### **First Year**

CH107, CH108  
MA126, MA129

#### **Second and Third Year**

PC241, PC242  
CH250: Organic I  
CH241: Analytical  
CH275: Inorganic I  
CH266: Fundamentals of Physical Chemistry  
or CH365 Biophysical  
CH382 (requires CH251): Biochemistry I

One of these courses can be replaced by an additional upper-level course in a sub discipline or cognate discipline.

#### **Fourth Year**

*Three In-Depth Courses:* can be from any specific sub discipline or a mixture of organic, inorganic, analytical, biochemistry, or physical.

CH201, 300-level research<sup>a</sup> or 400-level research<sup>b</sup>  
CH251 (before CH382): Organic II  
CH342: Instrumental  
CH351: Organic III  
CH366: Physical I  
CH367: Physical II  
CH383: Biochemistry II  
CH475: Inorganic II  
CH480: Advanced Metabolism (with lab)

Upper-level courses in cognate disciplines (with significant lab hours) may also be approved by the Department.

CH490: Senior Seminar is Required

<sup>a</sup> from 301, 302, 303, 304 or 305

<sup>b</sup> from 401, 402, 403, 404 or 405

### **Requirements for ACS Certified Chemistry Major**

**Suggested Year of Completion  
(15.50)**

#### **First Year**

CH107, CH108  
MA126, MA129

#### **Second and Third Year**

PC 241, PC242  
CH250: Organic I  
CH251 (before CH382): Organic II  
CH241: Analytical  
CH275: Inorganic  
CH266: Fundamentals of Physical Chemistry  
or CH365 Biophysical  
CH382 (requires CH251): Biochemistry I

#### **Fourth Year**

*Three In-Depth Courses:* can be from any specific sub discipline or a mixture of organic, inorganic, analytical, biochemistry, or physical.

CH201, 300-level research<sup>a</sup> or 400-level research<sup>b</sup> (with paper)  
CH342: Instrumental  
CH351: Organic III  
CH366: Physical I  
CH367: Physical II  
CH383: Biochemistry II  
CH475: Inorganic II  
CH480: Advanced Metabolism (with lab)

Upper-level courses in cognate disciplines (with significant lab hours) may also be approved by the Department.

CH490: Senior Seminar is Required

## Department of Chemistry and Biochemistry 2020

### **Requirements for Biochemistry Major CC**

**Suggested Year of Completion  
(16.50)**

#### **First Year**

CH107, CH108  
MA126, MA129  
MB131

#### **Second and Third Year**

PC241, PC242  
MB201: (Lab in Cell and Genetics)  
CH250: Organic I  
CH251: Organic II  
CH382 (requires CH251): Biochemistry I  
CH241: Analytical *OR* CH266: Fundamentals of  
Physical Chemistry *OR* CH275: Inorganic I

#### **Fourth Year**

CH383: Biochemistry II  
CH201, 300-level research<sup>a</sup> or 400-level research<sup>b</sup>  
or MB399 (with Department approval):

*Two In-Depth Courses:*

In Biochemistry/Chemistry or Cognate disciplines  
**with significant lab component** may be chosen  
from the following:

CH342: Instrumental  
CH351: Organic III  
CH366: Physical I  
CH367: Physical II  
CH400: Topics courses upon approval  
CH475: Inorganic II  
CH480: Advanced Metabolism (with lab)  
BE344: SEM  
BE345: TEM  
MB350-Special Topics Lab Research  
MB355-Laboratory Advanced Genetics  
MB360-Laboratory in Molecular Bio

Other upper-level courses in cognate  
disciplines (with significant lab hours)  
may also be approved.

CH490: Senior Seminar is Required

<sup>a</sup> from 301, 302, 303, 304 or 305

<sup>b</sup> from 401, 402, 403, 404 or 405

### **Requirements for ACS Certified Biochemistry Major**

**Suggested Year of Completion  
(16.50)**

#### **First Year**

CH107, CH108  
MA126, MA129

#### **Second and Third Year**

PC241, PC242  
CH250: Organic I  
CH251: Organic II  
CH382 (requires CH251): Biochemistry I  
CH275: Inorganic I  
CH241: Analytical  
CH266: Fundamentals of Physical Chemistry

#### **Fourth Year**

CH383: Biochemistry II  
CH201, 300-level research<sup>a</sup> or 400-level research<sup>b</sup>  
with Paper or MB399 (with Department approval):

*Two In-Depth Courses:*

In Biochemistry/Chemistry or Cognate disciplines  
**with significant lab component** may be chosen  
from the following:

CH342: Instrumental  
CH351: Organic III  
CH366: Physical I  
CH367: Physical II  
CH400: Topics courses upon approval  
CH475: Inorganic II  
CH480: Advanced Metabolism (with lab)  
BE344: SEM  
BE345: TEM  
BE366: Comparative Animal Physiology  
MB350-Special Topics Lab Research  
MB355-Laboratory Advanced Genetics  
MB360-Laboratory in Molecular Bio

Other upper-level courses in cognate  
disciplines (with significant lab hours)  
may also be approved.

CH490: Senior Seminar is Required