Department of Chemistry and Biochemistry (Nov 2021)

Chemistry Major CC
(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 CH 365: Biophysical Chemistry or CH 365: 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, or physical

CH201/300-level researcha/400-level researchb
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

ACS Certified Chemistry Major
(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 I
CH266: Fundamentals of Physical Chemistry or CH 365: Biophysical Chemistry or CH 365: 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, or physical

CH201/300-level researcha/400-level researchb (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
**Biochemistry Major CC**
(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\(^a\)/400-level research\(^b\) 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
CH 366: 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

\(^a\) from 301, 302, 303, 304 or 305
\(^b\) from 401, 402, 403, 404 or 405

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**ACS Certified Biochemistry Major**
(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\(^a\)/400-level research\(^b\) 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
CH 366: 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