

Department of Chemistry and Biochemistry (May 2024)

Chemistry Major CC

(14.50)

First Year

CH107 / CH117,
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
CH382 (requires CH251): Biochemistry I

One of these five chemistry 200-/300-level courses may be replaced by an upper-level chemistry course or an approved upper-level course in a subdiscipline 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 research^a/400-level research^b

CH251 (before CH382): Organic II
CH342: Instrumental
CH351: Organic III
CH353: Intro to Polymer
CH366: Physical I
CH367: Physical II
CH375: Solid State Inorganic
CH376: Organometallic
CH377: Bioinorganic
CH383: Biochemistry II
CH471: Ribonucleic Acids
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

^a from 301, 302, 303, 304 or 305

^b from 401, 402, 403, 404 or 405

ACS Certified Chemistry Major

(15.50)

First Year

CH107 / CH117,
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 subdiscipline or a mixture of organic, inorganic, analytical, or physical

CH201/300-level research^a/400-level

research^b (with paper)
CH342: Instrumental
CH351: Organic III
CH353: Intro to Polymer
CH366: Physical I
CH367: Physical II
CH375: Solid State Inorganic
CH376: Organometallic
CH377: Bioinorganic
CH383: Biochemistry 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/CH117,
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
CH353: Intro to Polymer
CH366: Physical I
CH367: Physical II
CH375: Solid State Inorganic
CH376: Organometallic
CH377: Bioinorganic
CH400: Topics courses upon approval
CH471: Ribonucleic Acids
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.

*The research unit can be replaced with one additional upper-level course upon consultation with the department if the student has had significant research experience that did not include academic credit (i.e. REU or other summer research program).

CH490: Senior Seminar is Required

^a from 301, 302, 303, 304 or 305

^b from 401, 402, 403, 404 or 405

ACS Certified Biochemistry Major

(16.50)

First Year

CH107/CH177,
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 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
CH353: Intro to Polymer
CH366: Physical I
CH367: Physical II
CH375: Solid State Inorganic
CH376: Organometallic
CH377: Bioinorganic
CH400: Topics courses upon approval
CH471: Ribonucleic Acids
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.

*The research unit can be replaced with one additional upper-level course upon consultation with the department if the student has had significant research experience that did not include academic credit (i.e. REU or other summer research program).

CH490: Senior Seminar is Required