

DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY
ADVISING PLANNING SHEET
FULL CONCENTRATION - Chemistry

Fall Semester

Spring Semester

Year One

_____ **CHE 105** (Analytical Chemistry I)
(General Studies Natural Science)

_____ **MAT 107** (Calculus & Analytical Geometry I)
(General Studies Quantitative Reasoning)

_____ **CHE 106** (Analytical Chemistry II)
(Prerequisite: CHE 105)

_____ **MAT 108** (Calculus & Analytical
Geometry II)
(Prerequisite: MAT 107)

Year Two

_____ **CHE 207** (Organic Chemistry I)
(Prerequisite: CHE 106)

_____ **PHY 201** (General Physics I)
(Prerequisite: MAT 107)

_____ **CHE 208** (Organic Chemistry II)
(Prerequisite: CHE 207)

_____ **PHY 202** (General Physics II)
(Prerequisite: PHY 201 & MAT 108)

Year Three

_____ **CHE 321** (Physical Chemistry I)
(Prerequisite: CHE 208; PHY 202; MAT 108)

_____ **CHE 323** (Instrumental Analysis)
(Co-requisite: CHE 321)

_____ **CHE 322** (Physical Chemistry II)
(Prerequisite: CHE 321)

_____ **CHE 324** (Inorganic Chemistry)
(Co-requisite: CHE 322)

Year Four

_____ **CHE 411**(Advanced Organic Chemistry)
(Prerequisite: CHE 322)

_____ **CHE 325** (Biochemistry)
(Prerequisite: CHE 208)

_____ **CHE 412** (Advanced Topics)

IDS 255 (Prerequisite: MAT 108) will be offered on an alternate year basis. It is recommended that it be taken during Year Three or Year Four; fulfills the general studies IDS requirement

Recommend research or internship

Possible electives **CHE 326** (Biochemistry II), **CHE 420** (Environmental Chemistry), **physics**, or **math** courses

DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY
ADVISING PLANNING SHEET
INTERDISCIPLINARY FULL CONCENTRATION -- Biochemistry

Fall Semester

Spring Semester

Year One

_____ **CHE 105** (Analytical Chemistry I)
(General Studies Natural Science)
_____ **BIO 201** (General Biology I)

_____ **CHE 106** (Analytical Chemistry II)
(Prerequisite: CHE 105)

Year Two

_____ **CHE 207** (Organic Chemistry I)
(Prerequisite: CHE 106)
_____ **MAT 107** (Calculus & Analytical Geometry I)
(General Studies Quantitative Reasoning)
_____ **BIO 203** (General Biology II)

_____ **CHE 208** (Organic Chemistry II)
(Prerequisite: CHE 207)
_____ **MAT 108** (Calculus & Analytical
Geometry II)
(Prerequisite: MAT 107)

Year Three

_____ **CHE 325** (Biochemistry I)
(Prerequisite: CHE 208)
_____ **PHY 201** (General Physics I)
(Prerequisite: MAT 107)

_____ **CHE 326** (Biochemistry II)
(Prerequisite: CHE 325)
_____ **PHY 202** (General Physics II)
(Prerequisite: PHY 201 & MAT 108)
_____ **BIO 343** (Molecular Genetics)
(Prerequisite: BIO 201, 203; CHE 208)

Year Four

_____ **CHE 321** (Physical Chemistry I)
(Prerequisite: CHE 208; PHY 202; MAT 108)
_____ **400-level course from**
CHE 411 (Advanced Organic Chemistry)
CHE 412 (Advanced Topics)
CHE 420 (Environmental Chemistry)

_____ **CHE 322** (Physical Chemistry II)
(Prerequisite: CHE 321)
BIO 495 (Molecular Biology Seminar)
BIO 498 (Immunology Seminar)

CHE 323 (Instrumental Analysis) & **CHE 324** (Inorganic Chemistry) required for ACS certification

Recommend research or internship

Possible electives **CHE 420** (Environmental Chemistry), **IDS 255** (Mathematics in Chemistry and Physics), **BIO 304** (General Botany), **BIO 321** (General Bacteriology), **BIO 323** (Developmental Biology), **BIO 332** (Cell Biology), or **additional chemistry or biology courses**

DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY
ADVISING PLANNING SHEET
FULL CONCENTRATION - Environmental Chemistry

Fall Semester

Spring Semester

Year One

- _____ **CHE 105** (Analytical Chemistry I)
(General Studies Natural Science)
- _____ **MAT 107** (Calculus & Analytical Geometry I)
(General Studies Quantitative Reasoning)

- _____ **CHE 106** (Analytical Chemistry II)
(Prerequisite: CHE 105)
- _____ **MAT 108** (Calculus & Analytical
Geometry II)
(Prerequisite: MAT 107)
- _____ **EVS 101** (Environment & Society)
(General Studies IDS requirement)

Year Two

- _____ **CHE 207** (Organic Chemistry I)
(Prerequisite: CHE 106)
- _____ **PHY 201** (General Physics I)
(Prerequisite: MAT 107)

- _____ **CHE 208** (Organic Chemistry II)
(Prerequisite: CHE 207)
- _____ **PHY 202** (General Physics II)
(Prerequisite: PHY 201 & MAT 108)
- _____ **BIO 202**

Year Three

- _____ **CHE 321** (Physical Chemistry I)
(Prerequisite: CHE 208; PHY 202; MAT 108)
- _____ **CHE 323** (Instrumental Analysis)
(Co-requisite: CHE 321)

- _____ **CHE 322** (Physical Chemistry II)
(Prerequisite: CHE 321)
- _____ **CHE 324** (Inorganic Chemistry)
(Co-requisite: 322)

Year Four

- _____ **CHE 325** (Biochemistry I)
(Prerequisite: CHE 208)

- _____ **CHE 420** (Environmental Chemistry)
(Prerequisites: CHE 321 & CHE 323)
- _____ **EVS 400** (Environmental Seminar)
(Prerequisite: CHE 322)

Recommend research or internship

Possible electives **IDS 255** (Mathematics in Chemistry and Physics), **CHE 326** (Biochemistry II), **BIO 300** (Biometry), or additional **biology, chemistry, physics, or math courses**

DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY
ADVISING PLANNING SHEET
FULL CONCENTRATION – Chemistry Education

Fall Semester

Spring Semester

Year One

_____ **CHE 105** (Analytical Chemistry I)
(General Studies Natural Science)

_____ **MAT 107** (Calculus & Analytical Geometry I)
(General Studies Quantitative Reasoning)

_____ **CHE 106** (Analytical Chemistry II)
(Prerequisite: CHE 105)

_____ **MAT 108** (Calculus & Analytical
Geometry II)
(Prerequisite: MAT 107)

Year Two

_____ **CHE 207** (Organic Chemistry I)
(Prerequisite: CHE 106)

_____ **PHY 201** (General Physics I)
(Prerequisite: MAT 107)

_____ **BIO 201** (General Biology)

_____ **CHE 208** (Organic Chemistry II)
(Prerequisite: CHE 207)

_____ **PHY 202** (General Physics II)
(Prerequisite: PHY 201 & MAT 108)

Year Three

_____ **CHE 321** (Physical Chemistry I)
(Prerequisite: CHE 208; PHY 202; MAT 108)

_____ **CHE 323** (Instrumental Analysis)
(Co-requisite: CHE 321)

_____ **CHE 322** (Physical Chemistry II)
(Prerequisite: CHE 321)

_____ **CHE 324** (Inorganic Chemistry)
(Co-requisite: CHE 322)

Year Four

_____ **Professional
Semester**

_____ **CHE 470** (Advanced Topics in
Chemistry Education)

**EDU 214, 301, 303, SPE 215, ENG 230, PSY 100; Professional Semester: EDU 400, 401, 407, 408;
PSY 100, ENG literature**

PSY 100 fulfills a general studies social science requirement

ENG literature fulfills a general studies humanities requirement

DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY
ADVISING PLANNING SHEET
COMBINED CONCENTRATION - Chemistry

Fall Semester

Spring Semester

Year One

_____ **CHE 105** (Analytical Chemistry I)
(General Studies Natural Science)

_____ **MAT 107** (Calculus & Analytical Geometry I)
(General Studies Quantitative Reasoning)

_____ **CHE 106** (Analytical Chemistry II)
(Prerequisite: CHE 105)

_____ **MAT 108** (Calculus & Analytical
Geometry II)
(Prerequisite: MAT 107)

Year Two

_____ **CHE 207** (Organic Chemistry I)
(Prerequisite: CHE 106)

_____ **PHY 201** (General Physics I)
(Prerequisite: MAT 107)

_____ **CHE 208** (Organic Chemistry II)
(Prerequisite: CHE 207)

_____ **PHY 202** (General Physics II)
(Prerequisite: PHY 201 & MAT 108)

Year Three

_____ **CHE 321** (Physical Chemistry I)
(Prerequisite: CHE 208; PHY 202; MAT 108)

_____ **CHE 322** (Physical Chemistry II)
(Prerequisite: CHE 321)

At least two courses from among:

CHE 323 (Instrumental Analysis)

CHE 324 (Inorganic Chemistry)

CHE 325 (Biochemistry I)

CHE 326 (Biochemistry II)

A **400-level** course selected from

CHE 411 (Advanced Organic Chemistry)

CHE 412 (Advanced Topics in Chemistry)

CHE 420 (Environmental Chemistry)