

Major/Minor/Certificate (Plan) Information

Program Code

CHEBS

Short Title

Chemistry

Long title (as much of full title as possible)

Chemistry BS

Are you requesting a TITLE change to an existing major, sequence, minor or certificate?

No

If requesting a title change(s), provide the CURRENT and NEW titles, and an itemization of costs expected to be incurred by the department/school, college, or university if the proposed change(s) is approved.

-

Did a majority of your faculty approve this title change?

No

Are you requesting to add a NEW Sequence to an existing major?

Yes

Brief rationale for requested change(s).

NOTE: Because of the system change (and ease to build), we the new sequence we are proposing is actually a change to 'the general chemistry sequence' that we previously had but it has a number of changes. The ACS Certified Sequence was submitted as a "new sequence," but this was originally submitted (and approved to UCC) as a sequence change to the major (as it was minor changes to the current major).

Rationale for new sequence ('general chemistry sequence - revised sequence in coursedog but was a new sequence):

Students graduating with a chemistry degree, not interested in graduate studies, often go into industrial work. This proposed program provides students with choice in their advanced courses so if they are interested in analytical work after graduation they can take more of those courses, or synthesis work focus there. It also frees up some laboratory requirements to allow for and encourage the completion of an internship which is also great for students headed directly to the work force after graduation. They also have the flexibility to pick up a minor (data science type) or other supports which would again make them more marketable in the work place. This program will not be ACS (American Chemical Society) certified which is not helpful to students going directly into industry and without the certification gives them more flexibility to take courses

appropriate for their future career endeavors. We will still have a sequence that is ACS certified for students who want it.

With the additional flexibility, we hope to recruit more students to the chemistry degree along with provide some advising tracks for courses depending on the student interests.

Rationale for changes to previous sequence (now entered as a new sequence call 'ACS Certified Sequence'):

We have removed the choice of CHE 344 (Biochem 2) and CHE 343 (Biochem lab) from the degree options as these are more appropriate for the biochemistry major and not our ACS certified degree, as a result there were not choices for the advanced courses so they were just added to the required list. These changes are consistent with the American Chemical Society's (ACS) requirements for a certified degree. We also had more lab hours than required by the ACS in the degree so we reduced the advanced laboratory courses from 4 to 3 required courses, and took away the internship (CHE 398) option. We are proposing a new sequence for the BS as well in which the CHE 398 option is more suited. The goal with these changes is to provide students more choice and directions for their degree. Those interesting in advance degree work in chemistry will be in the ACS certified program as it will prepare them for the next level and internship is less appropriate for this degree. The other proposed, new, sequence will be of interest to students going into industry right after undergrad.

We hope these changes will help us recruit and better advise students on their career paths.

Program Long Description / Plan Prospectus

Program Type
Major

Degree Designation
BS - Bachelor of Science

Career (acadCareer) (Empty for majors and certificates)

Academic Program
Arts and Sciences Undergrad

Department(s)
Chemistry

Are revisions being made to a major, or associated sequence(s), minor or certificate that lead to teacher certification/licensure?

No

Split Ownership

No

Department Percent Ownership

Chemistry - 100%

Is this undergraduate or graduate level?

Undergraduate

Total hours required for the major, minor, certificate or sequence(s) that you are requesting revisions to. If making revisions to more than one sequence, indicate total hours required for each sequence.

120

Undergraduate only: Provide justification if the Major (associated Sequences) you are revising require more than 72 hrs or more than 55 hrs in the major/sequence discipline.

-

Academic Planning

Requested starting catalog year for the revisions. Example: 2027-2028

2026-27

Effective Start Date

May 18, 2026

Status

Active

First Term Valid

-

Last Admit Term (`ssrLastAdmTerm`)

-

Modality of major, minor or certificate you are revising. **Indicate changes to sequence(s) modality in Sequences section below.**

Refer to individual sequences

Major/Minor/Certificate (Plan) Administration

Upload supporting files (pdfs). Example: if a major/sequence includes courses offered by a different department, an email of concurrence from department chair(s) is required.

[CHE-ApprovedFIF.pdf](#)**Program Length Type (`ssrProgLenType`)**

Years

Program Length Value (`ssrProgLength`)

4

Evaluate Plan Before Program

No

Last Prospect Date

-

Transcript Level
Print on Official

Print On Diploma
Yes

Print On Transcript
Yes

Diploma Description
Chemistry

Transcript Description
MAJ - Chemistry

CIP Code
40.0501

HEGIS Code
-

SULA Special Program (`sfaSpecProgFlg`)
N - Not Applicable

NSC Classification (`ssrNscCrdLvl`)
B - Bachelor's Degree

Requirement Term Default (`plnReqtrmDflt`)
Program's Requirement Term

Field Of Study
-

Allow Integration Sync To SIS
Yes

Advisement

Show in What-If Advisor
Yes

Show in What-If Pre-matriculated Student
Yes

Show in What-If Student
Yes

Report as NSC Classification Program
Yes

Sequences (Subplans)

CHEM-PDG - Pedagogy Emphasis	
Name Pedagogy	Long Name Pedagogy Emphasis
Type	Status

Sequence	Inactive
CIP Code 40.0501	
Catalog Short Description (max of 500 characters with spaces) This sequence is not available for direct admission. Contact the department or undergraduate advisor for more information.	Modality On Campus (50% or more instruction is on campus)

CHETEACH - Chemistry Teacher Education**Name**

ChemTchEd

Long Name

Chemistry Teacher Ed

Type

Sequence

Status

Active

CIP Code

40.0501

Catalog Short Description (max of 500 characters with spaces)

The demand for chemistry teachers is great in both Illinois and across the nation. We need more beginning chemistry teachers over the next 10 years than teacher education programs can currently produce. Illinois State's Chemistry Teacher Education program is fully accredited by the National Council for Accreditation of Teacher Education (NCATE) and the National Science Teachers Association (NSTA). The Department of Chemistry is one of the nation's top producers of degrees certified by the American Chemical Society.

Modality

On Campus (50% or more instruction is on campus)

GENCHEM - General Chemistry**Name**

GenrIChem

Long Name

General Chemistry

Type

Sequence

Status

Active

CIP Code

40.0501

Catalog Short Description (max of 500 characters with spaces)

The Department of Chemistry at Illinois State University is one of the largest undergraduate chemistry programs in the nation. The department is consistently among the top producers nationally in number of Bachelor of Science graduates.

Modality

On Campus (50% or more instruction is on campus)

CHEASC - ACS Certified Chemistry**Name**

ACSCHEM

Long Name

ACS Certified Chemistry

Type

Sequence

Status

Active

CIP Code

40.0501

Catalog Short Description (max of 500 characters with spaces)

The Department of Chemistry at Illinois State University is one of the largest undergraduate chemistry programs in the nation. The department is consistently among the top producers nationally in number of Bachelor of Science graduates earning the professionally certified American Chemical Society degree.

Modality

On Campus (50% or more instruction is on campus)

Requirements

Simple Requisites

Major, Minor or Certificate (plan)

General Chemistry and ACS Certified Sequence: A grade of C or better is required in all the following Chemistry courses: CHE 140, CHE 141, CHE 215, CHE 216, CHE 230, CHE 231, CHE 232, CHE 250, CHE 251, CHE 242 or CHE 342, CHE 360, CHE 361.

Chemistry Teacher Education Sequence: Students completing the Chemistry Teacher Education Sequence must have a 2.50 or higher GPA in Chemistry, a 2.50 or higher GPA in Professional Education courses, and a cumulative GPA of 2.50 or higher.

A grade of C or better is required in all courses in the major.

Student must complete one of the following sequences.

Sequences (subplans)

General Chemistry Sequence - 58 Minimum Required Hours (includes 42 credit hours of required Chemistry)

Type

Completion Requirement

Required courses

A grade of C or better is required in all the following Chemistry courses: CHE 140, CHE 141, CHE 215, CHE 216, CHE 230, CHE 231, CHE 232, CHE 250, CHE 251, CHE 242 or CHE 342, CHE 360, CHE 361.

Complete ALL of the following Courses:

- CHE140 - General Chemistry I
- CHE141 - General Chemistry II
- CHE215 - Analytical Chemistry
- CHE216 - Analytical Chemistry Laboratory
- CHE230 - Organic Chemistry I
- CHE231 - Organic Chemistry Laboratory I
- CHE232 - Organic Chemistry II
- CHE250 - Fundamentals Of Inorganic Chemistry
- CHE251 - Fundamentals Of Inorganic Chemistry Laboratory
- CHE360 - Physical Chemistry I
- CHE361 - Physical Chemistry Laboratory I

- MAT145 - Calculus I
- MAT146 - Calculus II

-

Biochemistry elective courses

-

Complete at least 1 of the following courses:

- CHE242 - Basic Biochemistry
- CHE342 - General Biochemistry I

-

Physics elective courses

Students must take one set of either PHY 108 and 109 (or) PHY 110 and 111.

Complete at least 1 of the following courses:

- PHY108 - College Physics I
AND PHY109 - College Physics II
- PHY110 - Physics For Science And Engineering I
AND PHY111 - Physics For Science And Engineering II

-

Additional chemistry electives

Take 9 credit hours from 310 or higher CHE lecture courses.

-

Advanced laboratory courses

-

Complete at least 3 of the following courses:

- CHE233 - Organic Chemistry Laboratory II
- CHE316 - Instrumental Analysis Laboratory
- CHE351 - Advanced Inorganic Chemistry Lab
- CHE363 - Physical Chemistry Laboratory II
- CHE290 - Research in Chemistry
OR CHE299 - Independent Honor Study In Chemistry

- CHE398A01 - Professional Practice: Internship In Chemistry
OR CHE398A50 - Professional Practice: Coop In Chemistry

Only one of CHE 290 or 299 may count for this requirement.

Only one of CHE 398A01 or 398A50 may count for this requirement.

Additional Comments:

The department strongly recommends students take at least 6 credit hours of advanced electives in the major.

A chemistry or math course in the major may not be attempted more than twice during a student's undergraduate career. An exception may be requested only once for only one course during a student's undergraduate career if the GPA in the major plan is 2.00 or higher, and the overall GPA is 2.00 or higher. A student who does not complete the course with a grade of C or better on the third attempt will at that time become ineligible to continue in the major. Any student who would need an additional third enrollment to enroll in any other required chemistry or math course in the major will at that time become ineligible to continue in the major. Each attempt in which the student receives a grade, including a grade of WX, is counted as an attempt.

Chemistry Teacher Education Sequence - 93 Minimum Required Hours (includes 38 hours required in CHE with a min. of 30 hours in courses numbered 200 or higher and 25 hours in Professional Education courses)

Type

Completion Requirement

Required courses

-

Complete ALL of the following Courses:

- CHE140 - General Chemistry I
- CHE141 - General Chemistry II
- CHE215 - Analytical Chemistry
- CHE216 - Analytical Chemistry Laboratory
- CHE230 - Organic Chemistry I
- CHE231 - Organic Chemistry Laboratory I
- CHE232 - Organic Chemistry II
- CHE250 - Fundamentals Of Inorganic Chemistry
- CHE251 - Fundamentals Of Inorganic Chemistry Laboratory
- CHE260 - Introduction To Teaching Science
- CHE261 - Laboratory Methods in Teaching Chemistry

- CHE301 - Teaching of Chemistry
 - CHE302 - Student Teaching And Professional Seminar
 - CHE360 - Physical Chemistry I
 - CHE361 - Physical Chemistry Laboratory I
-

Biochemistry elective courses

-

Complete at least 1 of the following courses:

- CHE242 - Basic Biochemistry
 - CHE342 - General Biochemistry I
-

Required courses outside of chemistry

-

Complete ALL of the following Courses:

- BSC197 - Molecular And Cellular Basis Of Life
 - GEO102 - Planet Earth
 - MAT145 - Calculus I
 - MAT146 - Calculus II
 - PHY108 - College Physics I
 - PHY109 - College Physics II
 - PHY208 - Astronomy and Space Science
-

Professional Education Requirements

-

Complete ALL of the following Courses:

- PSY110 - Fundamentals Of Psychology
- PSY215 - Educational Psychology
- SED344 - Teaching Secondary Content to Students with Disabilities
- TCH212 - The Teaching Profession In Secondary Schools
- TCH216 - Prin & Practices For Teaching & Learning In Secondary School
- TCH219 - Integrating Multiple Literacies & Technology Across Secondary Curriculum
- STT399A73 - Student Teaching In Chemistry

Students must complete 10 credit hours of STT 399A73.

Additional Comments:

Science, Technology, Engineering, or Mathematics (STEM) Electives: The department strongly recommends that students take at least 6 hours of electives in a STEM course not listed on the major plan of study. Advising options for various teaching endorsements or career objectives are available from the department office and on the department website.

A course in the major may not be taken more than twice unless the course description states "Multiple enrollments are allowed." An exception may be requested once during a student's undergraduate career if the GPA in the major plan and the overall GPA is 2.00 or higher.

EAF 228 is strongly recommended

See University-Wide Teacher Education Requirements for more information.

ACS Certified Chemistry Sequence - 60 Minimum Required Hours (includes 44 credit hours of required Chemistry)**Type**

Completion Requirement

Required courses

A grade of C or better is required in all the following Chemistry courses: CHE 140, CHE 141, CHE 215, CHE 216, CHE 230, CHE 231, CHE 232, CHE 250, CHE 251, CHE 242 or CHE 342, CHE 360, CHE 361.

Complete ALL of the following Courses:

- CHE140 - General Chemistry I
- CHE141 - General Chemistry II
- CHE215 - Analytical Chemistry
- CHE216 - Analytical Chemistry Laboratory
- CHE230 - Organic Chemistry I
- CHE231 - Organic Chemistry Laboratory I
- CHE232 - Organic Chemistry II
- CHE233 - Organic Chemistry Laboratory II
- CHE250 - Fundamentals Of Inorganic Chemistry
- CHE251 - Fundamentals Of Inorganic Chemistry Laboratory
- CHE315 - Instrumental Analysis
- CHE350 - Advanced Inorganic Chemistry
- CHE360 - Physical Chemistry I
- CHE361 - Physical Chemistry Laboratory I

- CHE362 - Physical Chemistry II
- MAT145 - Calculus I
- MAT146 - Calculus II

Biochemistry elective courses**Complete at least 1 of the following courses:**

- CHE242 - Basic Biochemistry
- CHE342 - General Biochemistry I

Physics elective courses

Students must take one set of either PHY 108 and 109 (or) PHY 110 and 111.

Complete at least 1 of the following courses:

- PHY108 - College Physics I
AND PHY109 - College Physics II
- PHY110 - Physics For Science And Engineering I
AND PHY111 - Physics For Science And Engineering II

Advanced laboratory courses**Complete at least 3 of the following courses:**

- CHE316 - Instrumental Analysis Laboratory
- CHE351 - Advanced Inorganic Chemistry Lab
- CHE363 - Physical Chemistry Laboratory II
- CHE290 - Research in Chemistry
OR CHE299 - Independent Honor Study In Chemistry

Only one of CHE 290 or 299 may count for this requirement.

Additional Comments:

The department strongly recommends students take at least 6 credit hours of advanced electives in the major.

A chemistry or math course in the major may not be attempted more than twice during a student's undergraduate career. An exception may be requested only once for only one course during a student's undergraduate career if the GPA in the major plan is 2.00 or higher, and the overall GPA is 2.00 or higher. A student who does not complete the course with a grade of C or better on the third attempt will at that time become ineligible to continue in the major. Any student who would need an additional third enrollment to enroll in any other required chemistry or math course in the major will at that time become ineligible to continue in the major. Each attempt in which the student receives a grade, including a grade of WX, is counted as an attempt.

General Education

-

General Education Program (students in 2014-2015 Catalog or later). For additional information on completing general education requirements for transfer students, refer to the General Education Requirements page of this catalog.

Type

Completion Requirement

General Education Program Requirements

-

Complete ALL of the following Requirement Sets:

- Untitled Requirement Set

-

Additional Comments:

-

University

-

Bachelor of Science Graduation Requirement in Science, Mathematics and Technology (BS-SMT) Graduation Requirement

Type

Completion Requirement

Bachelor of Science Graduation Requirement in Science, Mathematics and Technology (BS-SMT) Graduation Requirement

-

Complete ALL of the following Requirement Sets:

- Untitled Requirement Set

-

Additional Comments:

-

College of Arts and Sciences World Language Graduation Requirement**Type**

Completion Requirement

College of Arts and Sciences World Language Graduation Requirement

-

Complete ALL of the following Requirement Sets:

- Untitled Requirement Set

-

Additional Comments:

-

AMALI: Cultures and traditions of Asia, the Middle East, Africa, Latin America, or Indigenous (AMALI) Peoples of the World Graduation Requirement**Type**

Completion Requirement

AMALI

-

Complete ALL of the following Requirement Sets:

- Untitled Requirement Set

-

Additional Comments:

-

IDEAS: Inclusion, Diversity, Equity, and Access in U.S. Society Graduation Requirement**Type**

Completion Requirement

IDEAS

-

Complete ALL of the following Requirement Sets:

- Untitled Requirement Set

-

Additional Comments:

-

No Requirement Level

Sample Plans of Study (Degree Maps)

Degree Map Name

General Chemistry Sequence

Total Degree Map Credits

120 - 1064

Degree Map Narrative

The requirements below pertain to this Undergraduate Catalog year and are intended as a guide for academic planning. Students should consult with their academic advisor to discuss their individual plan of study.

A minimum of 120 total credit hours are required, including 40 senior level hours (200-300 level courses).

In addition to completing major requirements students must complete:

1. General Education requirements (refer to General Education for alternative options for transfer students)
2. One course for the AMALI graduation requirement
3. One course for the IDEAS graduation

4. Specific degree type requirements (Bachelor of Arts or Bachelor of Science)

5. Some courses may satisfy a major requirement and one of the requirements noted above.

Year	Semester	Actual Credits
Year 1	Fall	15

Requirement Select

- CHE140 - General Chemistry I
- **AND** MAT145 - Calculus I

Actual Credits 8

Requirement Select

- ENG101 - Composition As Critical Inquiry
- OR**
- COM110 - Communication As Critical Inquiry

Actual Credits 3

Requirement Select

- Foreign language 111-level course for College of Arts and Sciences world language requirement (Generic)

Actual Credits 4

Year	Semester	Actual Credits
Year 1	Spring	15

Requirement Select

- CHE141 - General Chemistry II
- **AND** MAT146 - Calculus II

Actual Credits 8

Requirement Select

- ENG101 - Composition As Critical Inquiry
- OR**
- COM110 - Communication As Critical Inquiry

Actual Credits 3

Requirement Select

- Foreign language 112-level course for College of Arts and Sciences world language requirement (Generic)

Actual Credits 4

Year	Semester	Actual Credits
Year 2	Fall	14

Requirement Select

- CHE230 - Organic Chemistry I
- AND CHE231 - Organic Chemistry Laboratory I
- AND PHY110 - Physics For Science And Engineering I

Actual Credits 8**Requirement Select**

- General Education course (Generic)

Actual Credits 3**Requirement Select**

- General Education course (Generic)

Actual Credits 3

Year	Semester	Actual Credits
Year 2	Spring	14 - 347

Requirement Select

- CHE232 - Organic Chemistry II
- AND PHY111 - Physics For Science And Engineering II
- AND CHE250 - Fundamentals Of Inorganic Chemistry
- AND CHE251 - Fundamentals Of Inorganic Chemistry Laboratory

Actual Credits 11**Requirement Select**

- IDEAS: Inclusion, Diversity, Equity, and Access in U.S. Society Graduation Requirement

Actual Credits 3 - 336

Year	Semester	Actual Credits
Year 3	Fall	14 - 625
Requirement Select - CHE215 - Analytical Chemistry - AND CHE216 - Analytical Chemistry Laboratory - AND CHE360 - Physical Chemistry I - AND CHE361 - Physical Chemistry Laboratory I Actual Credits 8		
Requirement Select AMALI: Cultures and traditions of Asia, the Middle East, Africa, Latin America, or Indigenous Peoples of the World Graduation Requirement Actual Credits 3 - 614		
Requirement Select General Education course (Generic) Actual Credits 3		
Year	Semester	Actual Credits
Year 3	Spring	16
Requirement Select - CHE242 - Basic Biochemistry OR - CHE342 - General Biochemistry I Actual Credits 3		
Requirement Select Major elective (Generic) Actual Credits 3		
Requirement Select Major elective (Generic) Actual Credits 1		

Requirement Select

- General Education course (Generic)

Actual Credits 3**Requirement Select**

- General Education course (Generic)

Actual Credits 3**Requirement Select**

- University wide elective (Generic)

Actual Credits 3

Year	Semester	Actual Credits
Year 4	Fall	16

Requirement Select

- Major elective (Generic)

Actual Credits 3**Requirement Select**

- Major elective (Generic)

Actual Credits 1**Requirement Select**

- General Education course (Generic)

Actual Credits 3**Requirement Select**

- General Education course (Generic)

Actual Credits 3**Requirement Select**

- Senior college-level university wide elective (200-300 level course) (Generic)

Actual Credits 3

Requirement Select

- University wide elective (Generic)

Actual Credits 3**Year**

Year 4

Semester

Spring

Actual Credits

16

Requirement Select

- Major elective (Generic)

Actual Credits 3**Requirement Select**

- Major elective (Generic)

Actual Credits 1**Requirement Select**

- General Education course (Generic)

Actual Credits 3**Requirement Select**

- University wide elective (Generic)

Actual Credits 3**Requirement Select**

- University wide elective (Generic)

Actual Credits 3**Requirement Select**

- University wide elective (Generic)

Actual Credits 3

--

Degree Map Name

ACS Certified Chemistry Sequence

Total Degree Map Credits

120 - 1064

Degree Map Narrative

The requirements below pertain to this Undergraduate Catalog year and are intended as a guide for academic planning. Students should consult with their academic advisor to discuss their individual plan of study.

A minimum of 120 total credit hours are required, including 40 senior level hours (200-300 level courses).

In addition to completing major requirements students must complete:

1. General Education requirements (refer to General Education for alternative options for transfer students)
2. One course for the AMALI graduation requirement
3. One course for the IDEAS graduation
4. Specific degree type requirements (Bachelor of Arts or Bachelor of Science)
5. Some courses may satisfy a major requirement and one of the requirements noted above.

Year
Year 1

Semester
Fall

Actual Credits
15

Requirement Select

- CHE140 - General Chemistry I
- AND MAT145 - Calculus I

Actual Credits

8

Requirement Select

- ENG101 - Composition As Critical Inquiry
- OR**
- COM110 - Communication As Critical Inquiry

Actual Credits

3

Requirement Select

- Foreign language 111-level course for College of Arts and Sciences world language requirement (Generic)

Actual Credits 4

Year	Semester	Actual Credits
Year 1	Spring	15

Requirement Select

- CHE141 - General Chemistry II
- **AND** MAT146 - Calculus II

Actual Credits 8

Requirement Select

- ENG101 - Composition As Critical Inquiry
- OR**
- COM110 - Communication As Critical Inquiry

Actual Credits 3

Requirement Select

- Foreign language 112-level course for College of Arts and Sciences world language requirement (Generic)

Actual Credits 4

Year	Semester	Actual Credits
Year 2	Fall	14

Requirement Select

- CHE230 - Organic Chemistry I
- **AND** CHE231 - Organic Chemistry Laboratory I
- **AND** PHY110 - Physics For Science And Engineering I

Actual Credits 8

Requirement Select

- General Education course (Generic)

Actual Credits 3

Requirement Select

- General Education course (Generic)

Actual Credits 3

Year	Semester	Actual Credits
Year 2	Spring	16 - 349

Requirement Select

- CHE232 - Organic Chemistry II
- AND PHY111 - Physics For Science And Engineering II
- AND CHE250 - Fundamentals Of Inorganic Chemistry
- AND CHE251 - Fundamentals Of Inorganic Chemistry Laboratory
- AND CHE233 - Organic Chemistry Laboratory II

Actual Credits 13**Requirement Select**

- IDEAS: Inclusion, Diversity, Equity, and Access in U.S. Society Graduation Requirement

Actual Credits 3 - 336

Year	Semester	Actual Credits
Year 3	Fall	14 - 625

Requirement Select

- CHE215 - Analytical Chemistry
- AND CHE216 - Analytical Chemistry Laboratory
- AND CHE360 - Physical Chemistry I
- AND CHE361 - Physical Chemistry Laboratory I

Actual Credits 8**Requirement Select**

- AMALI: Cultures and traditions of Asia, the Middle East, Africa, Latin America, or Indigenous Peoples of the World Graduation Requirement

Actual Credits 3 - 614**Requirement Select**

- General Education course (Generic)

Actual Credits		3
Year Year 3	Semester Spring	Actual Credits 16
Requirement Select - CHE362 - Physical Chemistry II AND CHE363 - Physical Chemistry Laboratory II Actual Credits 4		
Requirement Select General Education course (Generic) Actual Credits 3		
Requirement Select General Education course (Generic) Actual Credits 3		
Requirement Select University wide elective (Generic) Actual Credits 3		
Requirement Select General Education course (Generic) Actual Credits 3		
Year Year 4	Semester Fall	Actual Credits 14
Requirement Select - CHE315 - Instrumental Analysis AND CHE316 - Instrumental Analysis Laboratory Actual Credits 4		
Requirement Select		

- CHE350 - Advanced Inorganic Chemistry
- **AND** CHE351 - Advanced Inorganic Chemistry Lab

Actual Credits 4

Requirement Select

- General Education course (Generic)

Actual Credits 3

Requirement Select

- University wide elective (Generic)

Actual Credits 3

Year	Semester	Actual Credits
Year 4	Spring	16

Requirement Select

- CHE242 - Basic Biochemistry
- OR**
- CHE342 - General Biochemistry I

Actual Credits 3

Requirement Select

- CHE290 - Research in Chemistry

Actual Credits 1

Requirement Select

- General Education course (Generic)

Actual Credits 3

Requirement Select

- University wide elective (Generic)

Actual Credits 3

Requirement Select

- University wide elective (Generic)

Actual Credits	3
-----------------------	----------

Requirement Select

- University wide elective (Generic)

Actual Credits	3
-----------------------	----------

--

Degree Map Name

Chemistry Teacher Education Sequence

Total Degree Map Credits

120 - 731

Degree Map Narrative

The requirements below pertain to this Undergraduate Catalog year and are intended as a guide for academic planning. Students should consult with their academic advisor to discuss their individual plan of study.

A minimum of 120 total credit hours are required, including 40 senior level hours (200-300 level courses).

In addition to completing major requirements students must complete:

1. General Education requirements (refer to General Education for alternative options for transfer students)
2. One course for the AMALI graduation requirement
3. One course for the IDEAS graduation
4. Specific degree type requirements (Bachelor of Arts or Bachelor of Science)
5. Some courses may satisfy a major requirement and one of the requirements noted above.

Year
Year 1

Semester
Fall

Actual Credits
17

Requirement Select

- CHE140 - General Chemistry I
- AND MAT145 - Calculus I
- AND PSY110 - Fundamentals Of Psychology

Actual Credits 11

Requirement Select

- ENG101 - Composition As Critical Inquiry
- OR**
- COM110 - Communication As Critical Inquiry

Actual Credits 3

Requirement Select

- Requirement Select
- General Education course (Generic)

Actual Credits 3

Year	Semester	Actual Credits
Year 1	Spring	14

Requirement Select

- CHE141 - General Chemistry II
- AND MAT146 - Calculus II

Actual Credits 8

Requirement Select

- ENG101 - Composition As Critical Inquiry
- OR
- COM110 - Communication As Critical Inquiry

Actual Credits 3

Requirement Select

- General Education course (Generic)

Actual Credits 3

Year	Semester	Actual Credits
Year 2	Fall	16

Requirement Select

- CHE230 - Organic Chemistry I
- AND CHE231 - Organic Chemistry Laboratory I
- AND PHY108 - College Physics I

Actual Credits 9

Requirement Select

- BSC197 - Molecular And Cellular Basis Of Life

Actual Credits 4

Requirement Select

- General Education course (Generic)

Actual Credits 3

Year	Semester	Actual Credits
Year 2	Spring	15 - 626

Requirement Select

- CHE232 - Organic Chemistry II
- **AND** CHE260 - Introduction To Teaching Science
- **AND** PHY109 - College Physics II

Actual Credits 10

Requirement Select

- AMALI: Cultures and traditions of Asia, the Middle East, Africa, Latin America, or Indigenous Peoples of the World Graduation Requirement

Actual Credits 3 - 614

Requirement Select

- TCH212 - The Teaching Profession In Secondary Schools

Actual Credits 2

Year	Semester	Actual Credits
Year 3	Spring	14

Requirement Select

- CHE250 - Fundamentals Of Inorganic Chemistry
- **AND** CHE251 - Fundamentals Of Inorganic Chemistry Laboratory
- **AND** TCH219 - Integrating Multiple Literacies & Technology Across Secondary Curriculum
- **AND** GEO102 - Planet Earth
- **AND** PHY208 - Astronomy and Space Science
- **AND** CHE261 - Laboratory Methods in Teaching Chemistry

Actual Credits 14

Year	Semester	Actual Credits
Year 4	Fall	16

Requirement Select

- CHE301 - Teaching of Chemistry
- **AND** CHE360 - Physical Chemistry I
- **AND** CHE361 - Physical Chemistry Laboratory I
- **AND** SED344 - Teaching Secondary Content to Students with Disabilities

Actual Credits 10

Requirement Select

- General Education course (Generic)

Actual Credits 3

Requirement Select

- University wide elective (Generic)

Actual Credits 3

Year	Semester	Actual Credits
Year 4	Spring	12

Requirement Select

- CHE302 - Student Teaching And Professional Seminar
- **AND** STT399A73 - Student Teaching In Chemistry

Actual Credits 12

Year	Semester	Actual Credits
Year 3	Fall	16

Requirement Select

- CHE242 - Basic Biochemistry
- OR**
- CHE342 - General Biochemistry I

Actual Credits 3

Requirement Select

- CHE215 - Analytical Chemistry
- **AND** CHE216 - Analytical Chemistry Laboratory

- **AND PSY215** - Educational Psychology
- **AND TCH216** - Prin & Practices For Teaching & Learning In Secondary School

Actual Credits

10

Requirement Select

- University wide elective (Generic)

Actual Credits

3

Dependencies

Coursedog Only Catalog Fields

Catalog Display Name

Chemistry - Bachelor of Science

Catalog Short Description

The Department of Chemistry at Illinois State University is one of the largest undergraduate chemistry programs in the nation. The department is consistently among the top producers nationally in number of Bachelor of Science graduates earning the professionally certified American Chemical Society degree.

Catalog Full Description

-

Read Only Catalog Fields

Program Level

Undergraduate

Learning Outcomes

Instructional Methods (this card is hidden and should NOT be displayed)