DEPARTMENT OF CHEMISTRY

Add new course:

CHEM 359 – In-depth Organic Chemistry Laboratory
1 Credit Hour
Experiments involving synthesis, purification, and characterization of organic compounds discussed in 360 and 368.
Credit Restriction: May not be applied toward the major. Students may not receive credit for both 359 and 369.
(RE) Prerequisite(s): CHEM 269.
(RE) Corequisite(s): CHEM 360.
Comment(s): Primarily for non-chemistry degree track, preprofessional students. Students majoring in either chemistry degree track may not take this course for credit toward the degree.

Revise to change prerequisite to corequisite, registration restriction to registration permission, and add repeatability:

CHEM 300 – Introductory Research in Chemistry
1 Credit Hour
Introduction to the principles and practice of research in chemistry for chemistry majors. Written report required.
Repeatability: May be repeated. Maximum 4 hours.
(RE) Corequisite(s): 130 or 138.
Registration Permission: Consent of department head.

Formerly:
CHEM 300 – Introductory Research in Chemistry
1 Credit Hour
Introduction to the principles and practice of research in chemistry for chemistry majors. Written report required.
(RE) Prerequisite(s): 130 or 138.
Registration Restriction(s): Chemistry major.

Revise to change corequisite to prerequisite:

CHEM 330 – Foundations of Inorganic Chemistry
3 Credit Hours
(RE) Prerequisite(s): 260.

Formerly:
CHEM 330 – Foundations of Inorganic Chemistry
3 Credit Hours
(RE) Corequisite(s): 260.

Revise prerequisites:

CHEM 370 – Foundations of Physical Chemistry
3 Credit Hours
(RE) Prerequisite(s): 130 or 138 and Physics 136 or 138 or 222 and Mathematics 142 or 148.

Formerly:
(RE) Prerequisite(s): 130 or 138 and Physics 136 or 138.

Revise to delete corequisite and add to prerequisite:

CHEM 380 – Foundations of Chemical Biology
3 Credit Hours
(RE) Prerequisite(s): 130 or 138 and 260.

Formerly:
(RE) Prerequisite(s): 130 or 138.
(Re) Corequisite(s): 260.

Revise credit hours, description and registration restriction:

CHEM 400 – Research in Chemistry
2 Credit Hours
Advanced students work with faculty on projects requiring knowledge and skills acquired in chemistry curriculum. Written reports are required. May be followed by either 400 or 408.
Repeatability: May be repeated. Maximum 6 hours.
(RE) Prerequisite(s): 300.
Registration Restriction(s): Chemistry major with junior or senior standing.
Registration Permission: Consent of department head.

Formerly:
CHEM 400 – Research in Chemistry
3 Credit Hours
Advanced students work with faculty on projects requiring knowledge and skills acquired in chemistry curriculum. Written reports are required. May be followed by either 400 or 408 (but not both).
Repeatability: May be repeated. Maximum 6 hours.
(RE) Prerequisite(s): 300.
Registration Restriction(s): Chemistry major with junior or senior standing.
Registration Permission: Consent of department head.

Chemistry Major, BS, Corequisites, Select one sequence, revise to add a 3rd option:

Select one sequence:
PHYS 135 – Introduction to Physics for Physical Science and Mathematics Majors I*
PHYS 136 – Introduction to Physics for Physical Science and Mathematics Majors II*
or
PHYS 137 – Honors: Fundamentals of Physics for Physics Majors I*
PHYS 138 – Honors: Fundamentals of Physics for Physics Majors II*
or
PHYS 221 – Elements of Physics*
PHYS 222 – Elements of Physics*

Formerly:
Select one sequence:
PHYS 135 – Introduction to Physics for Physical Science and Mathematics Majors I*
PHYS 136 – Introduction to Physics for Physical Science and Mathematics Majors II*
or
PHYS 137 – Honors: Fundamentals of Physics for Physics Majors I*
PHYS 138 – Honors: Fundamentals of Physics for Physics Majors II*

Chemistry Major, BS, Major Requirements, Complete two of following in-depth Lecture courses, under “or preferably” add a fourth course to choices:

BCMB 401 – Biochemistry I

Chemistry Major, BS, Major Requirements, under heading Select an additional 8 hours, revise to:

8 additional credit hours from chemistry courses at the 300 or 400 level (Only BCMB 419 may also count towards the 8 additional credit hours outside of Chemistry). No more than 6 units of undergraduate research credit hours (CHEM 300, 400, 408) may count toward this requirement.

Formerly:
8 additional credit hours from chemistry courses at the 300 or 400 level (BCMB 419 may also count towards the 8 additional credit hours).
Delete the Chemistry Minor description and replace with the following:

Chemistry Minor
Minor Requirements
A minor in chemistry consists of 18 hours of the following courses.

Complete three of the following foundation level sequences:
CHEM 210 – Foundations of Analytical Chemistry
and
CHEM 219 – Foundations of Analytical Chemistry Laboratory

CHEM 260 – Foundations of Organic Chemistry
and
CHEM 269 – Foundations of Organic Chemistry Laboratory

CHEM 330 – Foundations of Inorganic Chemistry
and
CHEM 339 – Foundations of Inorganic Chemistry Laboratory

CHEM 370 – Foundations of Physical Chemistry
and
CHEM 379 – Foundations of Physical Chemistry Laboratory

CHEM 380 – Foundations of Chemical Biology
and
CHEM 389 – Foundations of Chemical Biology Laboratory

Choose one in-depth course:
CHEM 311 – Advanced Analytical Chemistry
CHEM 360 – In-depth Organic Chemistry
CHEM 430 – In-depth Inorganic Chemistry
CHEM 470 – In-depth Physical Chemistry
BCMB 401 – Biochemistry I

Choose 3 additional hours at the 300 level or above in Chemistry.
(BCMB 401 may not be used to satisfy this requirement)

Chemistry Major, BS (uTrack Requirements) term 3, Old courses:
Cognitive elective requirement 2
CHEM 260 (Foundation Course)
CHEM 210 (Foundation Course)
Foundation Lab (must complete 4 of 5 from CHEM 219, 269, 339, 379, 389)
PHYS 135* or PHYS 137*

New courses:
Cognitive elective requirement 2
CHEM 260 (Foundation Course)
CHEM 210 (Foundation Course)
Foundation Lab (must complete 4 of 5 from CHEM 219, 269, 339, 379, 389)
PHYS 135* or PHYS 137* or PHYS 221*

Old milestones:
CHEM 130*
MATH 141*
ENGL 102*
CHEM 210 or 260 with grade of C or higher

New milestones:
CHEM 130*
MATH 141*
ENGL 102*

Chemistry Major, BS (uTrack Requirements) term 4, Old courses:
CHEM 380 (Foundation Course)
Foundation Lab (must complete 4 of 5 from CHEM 219, 269, 339, 379, 389)
PHYS 136* or PHYS 138*
A&S Elective Requirements 1

New courses:
An additional foundation lecture course (CHEM 330 or 370 or 380)
Foundation Lab (must complete 4 of 5 from CHEM 219, 269, 339, 379, 389)
PHYS 136* or PHYS 138* or PHYS 222*
A&S Elective Requirements 1

Old milestones:
An additional Foundation Lecture course
MATH 142*

New milestones:
CHEM 210 or CHEM 260 with a grade of C or better
Complete CHEM 219 or CHEM 269 with a grade of C or better
MATH 142*

Chemistry Major, BS (uTrack Requirements) term 5, Old courses:
CHEM 330 (Foundation Course)
CHEM 370 (Foundation Course)
Foundation lab (must complete 4 of 5 from CHEM 219, 269, 339, 379, 389)
PHYS 136* or PHYS 138* or PHYS 222*
A&S Elective Requirements 1

New courses:
Complete all foundation lectures.
Complete 4 of 5 foundation labs.

Old milestones:
4 of 5 Foundation Lecture courses with grades of C or better

New milestones:
Complete 3 of 5 Foundation Lecture courses with grades of C or better
Complete 2 of 5 Foundation Lab courses with grades of C or better.
PHYS 135* or PHYS 137* or PHYS 221*

Term 6:
Old courses:
Complete 2 of 5 In-depth Chemistry Electives (CHEM 311, CHEM 360, CHEM 430, CHEM 470, BCMB 401)
Chemistry Elective
Complete 1 of 2 advanced laboratories (CHEM 449 or CHEM 459) (satisfies WC requirement)
A&S Elective Requirement 1

New courses:
Complete 2 of 5 In-depth Chemistry lecture courses (CHEM 311, CHEM 360, CHEM 430, CHEM 470, BCMB 401)
Chemistry Elective
Complete 1 of 2 advanced laboratories (CHEM 449 or CHEM 459) (satisfies WC requirement)
A&S Elective Requirement 1

Old milestones:
Complete all foundation courses with grades of C or higher
Complete Foundation lab requirement with grade of C or higher

New milestones:
Complete 4 of 5 foundation courses with grades of C or higher
Complete 4 of 5 Foundation lab requirement with grade of C or higher
PHYS 136* or PHYS 138* or PHYS 222*

ACS Certified BS Chemistry uTrack requirements, term 3:

Old courses:
Cognitive elective requirement 2
CHEM 260 (Foundation Course)
CHEM 210 (Foundation Course)
Foundation Lab (must complete 4 of 5 from CHEM 219, 269, 339, 379, 389)
PHYS 135* or PHYS 137*

New courses:
Cognitive elective requirement 2
CHEM 260 (Foundation Course)
CHEM 210 (Foundation Course)
Foundation Labs CHEM 219 and 269
PHYS 135* or PHYS 137*
MATH 142*

Old milestones:
CHEM 130*
MATH 141*
ENGL 102*
CHEM 210 or 260 with grade of C or higher

New milestones:
CHEM 130*
MATH 141*
ENGL 102*

ACS Certified BS Chemistry (uTrack Requirements) term 4, Old courses:
CHEM 380 (Foundation Course)
Foundation Lab (must complete 4 of 5 from CHEM 219, 269, 339, 379, 389)
MATH 241
PHYS 136* or PHYS 138*
A&S Elective Requirements

New courses:
An additional foundation lecture course (CHEM 330 or 370 or 380)
An addition foundation lab (must complete all CHEM 219, 269, 339, 379, 389)
CHEM 360
MATH 241
PHYS 136* or PHYS 138*
A&S Elective Requirements

Old milestones:
3 of 5 foundation lecture courses with grade of C or higher
MATH 142*
New milestones:
CHEM 210 and 260 with grade of C or higher
CHEM 219 and 269 with a grade of C or higher
MATH 142*
PHYS 135* or PHYS 137*

ACS Certified BS Chemistry Major (uTrack Requirements) term 5, Old courses:
CHEM 330 (Foundation Course)
CHEM 370 (Foundation Course)
Foundation lab (must complete all CHEM 219, 269, 339, 379, 389)
A&S Elective Requirements 1

New courses:
Complete all foundation lectures.
Complete 4 of 5 foundation labs.

Old milestones:
Complete all Foundation Lecture courses with grades of C or better
Complete all Foundation Lab courses with grades of C or better
Complete MATH 241

New milestones:
Complete 3 of 5 Foundation Lecture courses with grades of C or better
Complete 3 of 5 Foundation Lab courses with grades of C or better.
MATH 241
PHYS 136* or PHYS 138*

ACS Certified BS Chemistry Major (uTrack Requirements) Term 6 Old courses:
Complete 3 of 4 In-depth Chemistry lecture courses (CHEM 311, CHEM 360, CHEM 430, CHEM 470)
Complete 2 of 3 Advanced Lab courses (CHEM 449*, CHEM 449*, CHEM 459*, BCMB 419)
CHEM 300
A&S Elective Requirements 1
Connections 4

New courses:
Complete 2 of 3 In-depth Chemistry lecture courses (CHEM 311, CHEM 430, CHEM 470)
Complete 1 of 3 advanced Lab courses (CHEM 449*, CHEM 459*, BCMB 419)
CHEM 300
A&S Elective Requirement 1
Connections 4

Old milestones:
No Milestones
New milestones:
Complete all foundation lecture courses with grades of C or better
Complete Foundation lab courses with grades of C or better
Complete one of the following classes, CHEM 311, CHEM 430, CHEM 470, CHEM 490, or BCMB 401 with grade of C or better.

Graduate catalog, Chemistry Major, PhD Requirements, 7th bullet, 3rd course sequence course, revise to delete CHEM 553:
CHEM 550-CHEM 551-CHEM 552