

NEVADA STATE UNIVERSITY

SCHOOL OF LIBERAL ARTS, SCIENCES, & BUSINESS

CHEMISTRY, B.S.

COLLEGE CORE CURRICULUM (19-44 CREDITS)

Unless otherwise noted, please refer to the Nevada State catalog for full list of Core requirements. Classes in the major requirements may be used to satisfy the Core requirements; consult an Academic Advisor for details. Note: A single course cannot fulfill more than one core requirement.

 ENGLISH 3-8 CREDITS

Nevada State students can be placed into English courses by submitting ACT or SAT scores or by completing the Directed Self Placement survey to better guide their placement. Students who complete Composition II will satisfy the Core Curriculum Composition requirement. Typically, students take Composition I during their first semester at the college and Composition II during the second semester.

- English Composition I (ENG 100, 101, or 116) 3-5
 English Composition II 3

 STUDY AND TECHNOLOGY SKILLS 0-3 CREDITS

Transfer students with 30 or more transferrable college credits or Nevada State students who complete the Nepantla Summer Bridge Program with an average GPA of 3.0 or greater will be able to waive the Study and Technology Skills Core Requirement.

- College Success (CEP 123 or ALS 101N) 2-3

 MATHEMATICS 3-5 CREDITS

Nevada State students can be placed into Math courses by submitting ACT or SAT scores or by completing the Math Directed Self-Placement survey to better guide their placement. Classes in the major may satisfy this requirement. Please see your degree outline and/or consult an Academic Advisor.

 NATURAL SCIENCES 7-8 CREDITS

Students are required to take two science courses, at least one of which must include an associated laboratory component. Classes in the major may satisfy this requirement. Please see your degree outline and/or consult an Academic Advisor.

- Natural Science Core 3-4
 Natural Science Core with Lab 4

 SOCIAL SCIENCES 3 CREDITS FINE ARTS 3 CREDITS HUMANITIES 6 CREDITS

- Humanities Core 3
 Humanities Core 3

 CONSTITUTION 3-6 CREDITS

Completion of US and NV Constitutions required. Complete either one US Constitution course and one NV Constitution course or complete one course that fulfills both US and NV Constitutions (CH 203 or PSC 101).

- Nevada Constitution 0-3
 United States Constitution 0-3

 CULTURAL DIVERSITY 3 CREDITS

For a full breakdown of requirements for the Chemistry major, please refer to accompanying "Major Degree Checklist"

MAJOR REQUIREMENTS (83 CREDITS)

ADDITIONAL GENERAL ELECTIVES (0-18 CREDITS)

TOTAL CREDITS FOR DEGREE (120 CREDITS)

Check box when requirement is satisfied

**Indicates a prerequisite and/or corequisite is required. Please refer to the catalog or speak to an advisor about these requirements.

† Indicates a lab is required.

This sample degree checklist is a planning tool intended for the current academic year. Each student's situation is unique and your degree may differ from the sample presented here. It is recommended that current NS students review the Academic Requirements report in their Student Center to monitor progress toward their degree and graduation requirements. It is also strongly recommended that you meet regularly with your Academic Advisor to verify degree progression.

NEVADA STATE UNIVERSITY

SCHOOL OF LIBERAL ARTS, SCIENCES, & BUSINESS

CHEMISTRY, B.S.

All courses used to fulfill major requirements must be completed with a minimum C-. Grades below a C- carry no credit towards major requirements.

MAJOR REQUIREMENTS (83 CREDITS)

BIOLOGY CORE COURSES

11 CREDITS

- | | | |
|---------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> BIOL 190** † | Intro to Cell and Molecular Biology | 4 |
| <input type="checkbox"/> BIOL 209** | Cell Processes | 3 |
| <input type="checkbox"/> BIOL 300** † | Principles of Genetics | 4 |

CHEMISTRY CORE COURSES

31 CREDITS

- | | | |
|---------------------------------------|------------------------------|---|
| <input type="checkbox"/> CHEM 121** † | General Chemistry I | 4 |
| <input type="checkbox"/> CHEM 122** † | General Chemistry II | 4 |
| <input type="checkbox"/> CHEM 241** † | Organic Chemistry I | 4 |
| <input type="checkbox"/> CHEM 242** † | Organic Chemistry II | 4 |
| <input type="checkbox"/> CHEM 330** | Analytical Chemistry | 4 |
| <input type="checkbox"/> CHEM 421** † | Physical Chemistry I | 3 |
| <input type="checkbox"/> CHEM 423** | Physical Chemistry Lab | 2 |
| <input type="checkbox"/> CHEM 431** | Advanced Inorganic Chemistry | 3 |
| <input type="checkbox"/> CHEM 474** | Biochemistry I | 3 |

REQUIRED RELATED COURSES

19 CREDITS

- | | | |
|---------------------------------------|--|---|
| <input type="checkbox"/> MATH 181** | Calculus I | 4 |
| <input type="checkbox"/> MATH 182** | Calculus II | 4 |
| <input type="checkbox"/> PHYS 180** † | Physics for Scientists and Engineers I | 4 |
| <input type="checkbox"/> PHYS 181** † | Physics for Scientists and Engineers II | 4 |
| <input type="checkbox"/> STAT 391** | Applied Statistics for Biological Sciences | 3 |

UPPER DIVISION CHEMISTRY ELECTIVES

22 CREDITS

Students must choose from the following courses (see catalog for pre-requisites). At least one elective must be a 4-credit course that has a lab component.

ADDITIONAL FOUNDATIONAL CHEMISTRY

6 CREDITS

Select two of the following courses:

- | | | |
|-------------------------------------|-----------------------|---|
| <input type="checkbox"/> CHEM 422** | Physical Chemistry II | 3 |
| <input type="checkbox"/> CHEM 455** | Instrumental Analysis | 3 |
| <input type="checkbox"/> CHEM 475** | Biochemistry II | 3 |

SPECIALIZED TOPICS IN CHEMISTRY

12 CREDITS

Select three or four of the following courses:

- | | | |
|---|---|-----|
| <input type="checkbox"/> CHEM 377** | Natural Product Chemistry | 3 |
| <input type="checkbox"/> CHEM 380** | Medicinal Chemistry | 3 |
| <input type="checkbox"/> CHEM 392** | Special Topics in Chemistry | 1-3 |
| <input type="checkbox"/> CHEM 432** | Inorganic Chemistry Laboratory | 1 |
| <input type="checkbox"/> CHEM 435** | Chemical Synthesis | 3 |
| <input type="checkbox"/> CHEM 442** | Advanced Organic Chemistry | 3 |
| <input type="checkbox"/> CHEM 445** | Organic Spectroscopy and
Structure Determination | 4 |
| <input type="checkbox"/> CHEM 447** | Advanced Synthesis Laboratory | 2 |
| <input type="checkbox"/> CHEM 455L** | Instrumental Analysis Laboratory | 2 |
| <input type="checkbox"/> CHEM 456/BCH 456** | Medical Biochemistry | 3 |
| <input type="checkbox"/> BIOL 405L** | Molecular and Cell Biology Techniques | 1 |
| <input type="checkbox"/> OR | | |
| <input type="checkbox"/> CHEM 472** | Biochemistry Laboratory | 2 |

EXPERIENTIAL CHEMISTRY

4 CREDITS

Select from the following courses:

- | | | |
|--|------------------------------------|-----|
| <input type="checkbox"/> CHEM 306/BIOL 306** | Introductions to Scientific Ethics | 1 |
| <input type="checkbox"/> CHEM 491** | Senior Seminar in Chemistry | 1 |
| <input type="checkbox"/> CHEM 492** | Advanced Topics in Chemistry | 2-6 |
| <input type="checkbox"/> CHEM 495** | Senior Thesis in Chemistry I | 3 |
| <input type="checkbox"/> CHEM 496/BIOL 497** | Senior Thesis in Chemistry II | 3 |
| <input type="checkbox"/> CHEM 497** | Independent Study | 1-3 |
| <input type="checkbox"/> CHEM 498** | Undergraduate Research | 1-3 |
| <input type="checkbox"/> CHEM 499** | Internship | 1-6 |

TOTAL CREDITS FOR DEGREE (120 CREDITS)

Check box when requirement is satisfied

**Indicates a prerequisite and/or corequisite is required. Please refer to the catalog or speak to an advisor about these requirements.

† Indicates a lab is required.

This sample degree checklist is a planning tool intended for the current academic year. Each student's situation is unique and your degree may differ from the sample presented here. It is recommended that current NS students review the Academic Requirements report in their Student Center to monitor progress toward their degree and graduation requirements. It is also strongly recommended that you meet regularly with your Academic Advisor to verify degree progression.

NAME & NSHE ID #: _____

2023-2024 CATALOG
DEGREE OVERVIEW
& NOTES PAGE

NEVADA STATE UNIVERSITY

SCHOOL OF LIBERAL ARTS, SCIENCES, & BUSINESS

CHEMISTRY, B.S.

CREDIT REQUIREMENTS

Summary of credit requirements for the Bachelor of Science in Chemistry

- | | |
|--|-------|
| <input type="checkbox"/> College Core Curriculum | 19-44 |
| <input type="checkbox"/> Major Requirements | 83 |
| <input type="checkbox"/> General Electives | 0-18 |

ADDITIONAL GRADUATION REQUIREMENTS

- | | | CREDITS COMPLETED | CREDITS REMAINING |
|---|--|-------------------|-------------------|
| <input type="checkbox"/> 120 CREDITS | College credits earned (minimum; must be 100 level or above) | 120 _____ | _____ |
| <input type="checkbox"/> RESIDENCY RULE | Upper division credits from Nevada State (minimum) | 30 _____ | _____ |

ADVISOR NOTES

STUDENT NOTES
