Summary of Approved CCN Courses, 2024

The following provides a summary of the 2024 Recommendation Reports for the CCN Faculty Subcommittees. Transfer Council recommends that due to changes in course information under OAR 715-025-0065 through 0115, colleges and universities should ensure students' academic progress is not disrupted. Courses completed before CCN changes should count toward graduation, even if requirements shift. Holding students harmless means honoring their efforts, supporting them through transitions, and keeping learning—not compliance—the central focus. CCN course information should be adopted as written. For more detailed information on what can be added to the course description and course learning outcomes, see the CCN Revised Framework and for more general information, see CCN Reports & Memos on the Educator Resources—Common Course Numbering webpage.

Approved CCN Course Information

Course Number and Prefix:
BA 169Z

Course Title:
Data Analysis Using Microsoft Excel

Course Credits:
4

Course Description:
Covers Microsoft Excel software skills necessary for evidence-based problem-solving, including workbook editing, formula creation, charting, and pivot tables. Emphasizes hands-on learning using Excel functions to perform data analysis to enhance decision-making.

Course Learning Outcomes:
Create and manage worksheets using appropriate data formatting.

Construct formulas with relative, absolute, and mixed cell references.

Analyze data using logical, lookup, mathematical, statistical, and text functions.

Manipulate large volumes of data using datasets and tables.

Interpret data using data visualization tools, including pivot tables and charts.

Review Cycle:
We recommend using the same review cycle established by the subcommittee for the prior three Business courses that were designated as common course numbered (BA101Z, BA211Z, BA213Z). There will be an annual review cycle beginning 2027 of these courses with a twofold purpose:

1. to review the transfer effectiveness of the courses and

2. to gather information about challenges, concerns, or changes needed from the OPUs and CCs.

These reviews are to take place in winter term.

Every third year beginning 2030, we will conduct a deeper review of the alignment of these courses; this is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the previous two years of data. The choice in these third-year reviews will be to either affirm our existing alignment decisions or to revise a particular aspect to keep our curriculum based on the data gathered from the previous two years. We would like as many members as possible of the original subcommittee to be invited to participate in these discussions. Historical memory and original context will be useful in informing future decisions.

Course Number and Prefix:
BA 226Z

Course Title:
Introduction to Business Law

Course Credits:
4

Course Description:
Provides a comprehensive overview of U.S. business law, including the legal system, contracts, torts, intellectual property, agency, employment, and business organization forms. Emphasizes practical legal knowledge and explores how laws impact business operations, with a focus on risk management, contract disputes, business formation, and compliance with government regulation. Introduces legal challenges in business through real cases and legal terminology.

Course Learning Outcomes:

1. Describe the U.S. legal system as applied to business including sources of law, the judicial system, and alternative forms of dispute resolution.
2. Explain the applicability of tort, criminal, and intellectual property law to business.
3. Identify business organization forms and the responsibilities and liabilities of principals and agents.
4. Describe the legal requirements for contract formation, enforcement, and defenses, as well as application of the Uniform Commercial Code.
5. Explain the basic tenets of employment, labor and wage laws related to business.

Review Cycle:
We recommend using the same review cycle established by the subcommittee for the prior three Business courses that were designated as common course numbered (BA101Z, BA211Z, BA213Z). There will be an annual review cycle beginning 2027 of these courses with a twofold purpose:

1. to review the transfer effectiveness of the courses and
2. to gather information about challenges, concerns, or changes needed from the OPUs and CCs.

These reviews are to take place in winter term. Every third year beginning 2030, we will conduct a deeper review of the alignment of these courses; this is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the previous two years of data. The choice in these third-year reviews will be to either affirm our existing alignment decisions or to revise a particular aspect to keep our curriculum based on the data gathered from the previous two years. We would like as many members as possible of the original subcommittee to be invited to participate in these discussions. Historical memory and original context will be useful in informing future decisions.

Course Number and Prefix:
BI, BIO, or BIOL 221Z

Course Title:
Principles of Biology: Cells

Course Credits:
5 (The course must include both lecture and lab components. Both of these components are embedded under the same course number and appearing as a single grade item on transcripts.)

Course Description:
Explores fundamental biological concepts and theories about the cellular and molecular basis of life including cell structure and function, metabolism, genetic basis of inheritance and how information flows from DNA to proteins, with a focus on the iterative process of science. Intended for science majors.

Course Learning Outcome Introductory Statement:
This work is based on the national 2011 American Association of Advancement of Science (AAAS) report "Vision and Change in Undergraduate Biology Education" that recommended five overarching Core Concepts and six Core Competencies for biology majors. For details about implementation refer to:

- For Core Concepts see BioCore Guide (see Supplement 2 from Brownell et al., 2017)
- For Core Competencies see BioSkills Guide (see Supplement from Clemmons et al., 2020)

Course Learning Outcomes:

1. Apply the iterative process of science to generate and answer biological questions by analyzing data and drawing conclusions that are based on empirical evidence and current scientific understanding.
2. Use evidence to develop informed opinions on contemporary biological issues and explain the implications of those issues on society.
3. Describe the structure and related functions of major classes of biomolecules.
4. Differentiate cell components and their functions, emphasizing them as a system of interacting parts.
5. Compare and contrast anabolic (photosynthesis) and catabolic (respiration and fermentation) pathways emphasizing the transformation of energy and matter.
6. Articulate how cells store, use, and transmit genetic information.

7. Explain how mutation and genetic recombination contribute to phenotypic variation and evolution.

Review Cycle:
The subcommittee proposes both an annual and triennial review.

The annual review cycle for these courses should

1. Assess the transfer effectiveness of the courses across institutions
2. Collect feedback regarding challenges, concerns, or potential areas for improvement from the 24 participating two- and four-year schools in the state.

This annual review process aims to maintain consistency in transferability and address emergent needs promptly. The first annual review is proposed for Spring 2027, with the assumption that the Common Course Numbering (CCN) approved outlines will be implemented by Fall 2025.

In addition to the annual review, the subcommittee recommends a comprehensive triennial alignment review, beginning in Fall 2029. This triennial review will provide an opportunity to assess the alignment of course content rigorously and will be the only point at which the subcommittee may consider voting to modify the aligned course content. This review will utilize data collected since the previous three-year review to make an informed decision. At the conclusion of each triennial review cycle, the subcommittee will recommend either affirming the current alignment or making revisions to specific aspects, based on the accumulated evidence and feedback.

The subcommittee also emphasizes the importance of involving original subcommittee members in these discussions to the extent possible. The presence of members with historical knowledge and an understanding of the initial decisions will ensure continuity and contextual insight, aiding in informed decision-making for the ongoing development and alignment of these courses.

Course Number and Prefix:
BI, BIO, or BIOL 222Z

Course Title:
Principles of Biology: Organisms

Course Credits:
5 (The course must include both lecture and lab components. Both of these components are embedded under the same course number and appearing as a single grade item on transcripts.)

Course Description:
Explores fundamental biological concepts and theories about the structure and function of diverse organisms (including plants and animals), evolution and development, transformation of energy and matter, and body systems at a multicellular organismal level. Intended for science majors.

Course Learning Outcome Introductory Statement:

This work is based on the national 2011 American Association of Advancement of Science (AAAS) report "Vision and Change in Undergraduate Biology Education" that recommended five overarching Core Concepts and six Core Competencies for biology majors. For details about implementation refer to:

- For Core Concepts see BioCore Guide (see Supplement 2 from Brownell et al., 2017)
- For Core Competencies see BioSkills Guide (see Supplement from Clemmons et al., 2020)

Course Learning Outcomes:

1. Apply the iterative process of science to generate and answer biological questions by analyzing data and drawing conclusions that are based on empirical evidence and current scientific understanding.
2. Use evidence to develop informed opinions on contemporary biological issues and explain the implications of those issues on society.
3. Explain how morphology relates to physiology across diverse organisms.
4. Describe how biological systems detect and respond to different internal/external environmental conditions through feedback.
5. Compare and contrast strategies for achieving homeostasis.
6. Explain how developmental and environmental processes influence the evolution of structures, functions, and life cycles across diverse organisms.

Review Cycle:

The subcommittee proposes both an annual and triennial review.

The annual review cycle for these courses should

3. Assess the transfer effectiveness of the courses across institutions
4. Collect feedback regarding challenges, concerns, or potential areas for improvement from the 24 participating two- and four-year schools in the state.

This annual review process aims to maintain consistency in transferability and address emergent needs promptly. The first annual review is proposed for Spring 2027, with the assumption that the Common Course Numbering (CCN) approved outlines will be implemented by Fall 2025.

In addition to the annual review, the subcommittee recommends a comprehensive triennial alignment review, beginning in Fall 2029. This triennial review will provide an opportunity to assess the alignment of course content rigorously and will be the only point at which the subcommittee may consider voting to modify the aligned course content. This review will utilize data collected since the previous three-year review to make an informed decision. At the conclusion of each triennial review cycle, the subcommittee will recommend either affirming the current alignment or making revisions to specific aspects, based on the accumulated evidence and feedback.

The subcommittee also emphasizes the importance of involving original subcommittee members in these discussions to the extent possible. The presence of members with historical knowledge and an understanding of

the initial decisions will ensure continuity and contextual insight, aiding in informed decision-making for the ongoing development and alignment of these courses.

Course Number and Prefix:
BI, BIO, or BIOL 2223Z

Course Title:
Principles of Biology: Ecology and Evolution

Course Credits:

5 (The course must include both lecture and lab components. Both of these components are embedded under the same course number and appearing as a single grade item on transcripts.)

Course Description:

Explores the unity and diversity of life through evolutionary mechanisms and relationships, and adaptation to the environment. Examines population, community, and ecosystem ecology. Intended for science majors.

Course Learning Outcome Introductory Statement:

This work is based on the national 2011 American Association of Advancement of Science (AAAS) report "Vision and Change in Undergraduate Biology Education" that recommended 5 overarching Core Concepts and 6 Core Competencies for biology majors. For details about implementation refer to:

- For Core Concepts see BioCore Guide (see Supplement 2 from Brownell et al., 2017)
- For Core Competencies see BioSkills Guide (see Supplement from Clemmons et al., 2020)

Course Learning Outcomes:
Apply the iterative process of science to generate and answer biological questions by analyzing data and drawing conclusions that are based on empirical evidence and current scientific understanding.

Use evidence to develop informed opinions on contemporary biological issues and explain the implications of those issues on society.

Provide evidence for phylogenetic relationships which illustrate the unity and diversity of life.

Describe how adaptation, development, mutation, and the environment affect organismal evolution.

Apply mathematical models to describe how populations change through time in relation to biotic and abiotic factors.

Explain how organisms and their environments affect each other across different temporal and spatial scales.

Interpret models explaining the flow of energy and cycling of matter in ecosystems.

Review Cycle:

The subcommittee proposes both an annual and triennial review.

The annual review cycle for these courses should

Assess the transfer effectiveness of the courses across institutions

Collect feedback regarding challenges, concerns, or potential areas for improvement from the 24 participating two- and four-year schools in the state.

Course Number and Prefix:
CH/CHE, or CHEM 221Z

Course Title:
General Chemistry I

Course Credits:
5 for lecture and lab. (Institutions will divide these credits between lecture and lab so that the total credits for both courses equals 5 credits.)

Course Description:
Explores and applies principles and applications of chemistry. Emphasis on measurement, components of matter, atomic and molecular structure, quantitative relationships including foundational stoichiometry, and major classes of chemical reactions. CH/CHE/CHEM 221Z is a lecture course; CH/CHE/CHEM 227Z is the laboratory component.

Course Learning Outcomes:
Students will be able to

1. Describe the phases and classifications of matter and differentiate between physical and chemical properties.
2. Represent physical measurements using SI and derived units and demonstrate systematic problem-solving including unit conversion.
3. Use the periodic table to solve problems in chemistry.
4. Describe the principles of electromagnetic energy, the Bohr model and quantum theory, and use electron configurations to identify periodic variations in chemical properties.
5. Interpret and apply ionic and covalent bonding theories including Lewis structures, formal charges, resonance, molecular structure, and polarity.
6. Quantify the composition of substances and solutions.
7. Identify and name a variety of elements, ions, ionic compounds, and covalent compounds.
8. Write, balance, and classify chemical reactions and solve foundational stoichiometry calculations.

Teachout Recommendation:

The committee recommends that the 2025-2026 academic year be designated as a teachout year for students that began the general chemistry series prior to Fall 2025. As the topics in the newly aligned CH/CHE/CHEM 221Z/227Z, 222Z/228Z, 223Z/229Z differ from those taught in the unaligned courses, students could miss topics by switching mid series. Several institutions currently offer delayed "trailer" sections of each course. This proposed teachout would facilitate completion of the sequence by students already on that schedule. All schools should be allowed to offer the pre-Z CH 222 and CH 223 alongside the CCN aligned courses for the first academic year of offering the newly aligned courses. This minimizes the negative impact on students who need to finish the series if they completed CH 221 before Fall 2025. CH 221 (pre-Z) does not need to be included in the teachout plan as students entering the series would begin in CH/CHE/CHEM 221Z and CH/CHE/CHEM 227Z in the Fall of 2025.

Review Cycle:
There will be an annual review cycle of these courses beginning 2027. The annual review will have a twofold purpose:

1. to review the transfer effectiveness of the courses and
2. to gather information about challenges, concerns, or changes needed from the OPUs and CCs.

These reviews are to take place in winter term 2027. Every third year beginning 2030, the subcommittee will conduct a deeper review of the alignment of these courses; this is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the previous two years of data. The choice in these third-year reviews will be to either affirm our existing alignment decisions or to revise a particular aspect to keep our curriculum based on the data gathered from the previous two years. We would like as many members as possible of the original subcommittee to be invited to participate in these discussions. Historical memory and original context will be useful in informing future decisions.

Course Number and Prefix:
CH, CHE, or CHEM 222Z

Course Title:
General Chemistry II

Course Credits:
5 for lecture and lab. (Institutions will divide these credits between lecture and lab so that the total credits for both courses equals 5 credits.)

Course Description:
Explores and applies principles presented in CH/CHE/CHEM 221Z to the study of the solid, liquid, and gaseous states of matter. Principles of stoichiometry, thermochemistry, kinetics, and foundational equilibrium are explored and applied to the study of aqueous and gas-phase chemical reactions. CH/CHE/CHEM 222Z is a lecture course; CH/CHE/CHEM 228Z is the laboratory component.

Course Learning Outcomes:
Students will be able to

1. Apply stoichiometry to a variety of problems involving reactions, gases, liquids, solutions, thermochemistry, kinetics, and equilibrium expressions.
2. Apply kinetic molecular theory and gas laws to predict the behavior of gases at various conditions.
3. Identify types of intermolecular forces and apply them to physical properties of solids, liquids, and solutions.
4. Describe solution concepts and factors affecting solution properties.
5. Determine the effects of different factors on chemical reaction rates and examine the role of catalysis in modifying these rates.
6. Apply concepts of thermochemistry to explain thermal energy transfer and the energy changes that accompany chemical and physical changes.
7. Identify and apply appropriate equations related to gas laws, solutions, colligative properties, thermochemistry, kinetics, and equilibrium expressions.

Teachout Recommendation:
The committee recommends that the 2025-2026 academic year be designated as a teachout year for students that began the general chemistry series prior to Fall 2025. As the topics in the newly aligned CH/CHE/CHEM 221Z/227Z, 222Z/228Z, 223Z/229Z differ from those taught in the unaligned courses, students could miss topics by switching mid series. Several institutions currently offer delayed "trailer" sections of each course. This proposed teachout would facilitate completion of the sequence by students already on that schedule. All schools should be allowed to offer the pre-Z CH 222 and CH 223 alongside the CCN aligned courses for the first academic year of offering the newly aligned courses. This minimizes the negative impact on students who need to finish the series if they completed CH 221 before Fall 2025. CH 221 (pre-Z) does not need to be included in the teachout plan as students entering the series would begin in CH/CHE/CHEM 221Z and CH/CHE/CHEM 227Z in the Fall of 2025.

Review Cycle:
There will be an annual review cycle of these courses beginning 2027. The annual review will have a twofold purpose:

1. to review the transfer effectiveness of the courses and
2. to gather information about challenges, concerns, or changes needed from the OPUs and CCs.

These reviews are to take place in winter term 2027. Every third year beginning 2030, the subcommittee will conduct a deeper review of the alignment of these courses; this is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the previous two years of data. The choice in these third-year reviews will be to either affirm our existing alignment decisions or to revise a particular aspect to keep our curriculum based on the data gathered from the previous two years. We would like as many

members as possible of the original subcommittee to be invited to participate in these discussions. Historical memory and original context will be useful in informing future decisions.

Course Number and Prefix:
CH, CHE, or CHEM 223Z

Course Title:
General Chemistry III

Course Credits:
5 for lecture and lab. (Institutions will divide these credits between lecture and lab so that the total credits for both courses equals 5 credits.)

Course Description:
Builds upon the principles presented in CH/CHE/CHEM 222Z, explores thermodynamics and chemical equilibrium, and applies them to the study of aqueous acid-base reactions, solubility, and electrochemistry. CH/CHE/CHEM 223Z is a lecture course; CH/CHE/CHEM 229Z is the laboratory component.

Course Learning Outcomes:
Students will be able to

1. Apply concepts of thermodynamics to explain the favorability of chemical reactions.
2. Apply the principles of spontaneity, entropy, free energy, and the laws of thermodynamics to predict and rationalize the behavior of chemical reactions.
3. Interpret the behavior and relative strengths of acids and bases, buffers, and the hydrolysis of salts.
4. Analyze and evaluate equilibrium reactions including solubility, acids and bases, and other equilibria.
5. Predict responses of various chemical systems to changing conditions using equilibrium calculations and Le Chatelier's Principle.
6. Use redox reactions and electrochemical principles to determine cell potentials and to analyze the relationship between voltage, free energy, and equilibrium.
7. Identify or formulate and apply the appropriate equations related to electrochemistry, thermodynamics, equilibrium reactions, acids, bases, and buffers.

Teachout Recommendation:
The committee recommends that the 2025-2026 academic year be designated as a teachout year for students that began the general chemistry series prior to Fall 2025. As the topics in the newly aligned CH/CHE/CHEM 221Z/227Z, 222Z/228Z, 223Z/229Z differ from those taught in the unaligned courses, students could miss topics by switching mid series. Several institutions currently offer delayed "trailer" sections of each course. This proposed teachout would facilitate completion of the sequence by students already on that schedule. All schools should be allowed to offer the pre-Z CH 222 and CH 223 alongside the CCN aligned courses for the first academic year of offering the newly aligned courses. This minimizes the negative impact on students who need

to finish the series if they completed CH 221 before Fall 2025. CH 221 (pre-Z) does not need to be included in the teachout plan as students entering the series would begin in CH/CHE/CHEM 221Z and CH/CHE/CHEM 227Z in the Fall of 2025.

Review Cycle:
There will be an annual review cycle of these courses beginning 2027. The annual review will have a twofold purpose:

1. to review the transfer effectiveness of the courses and
2. to gather information about challenges, concerns, or changes needed from the OPUs and CCs.

These reviews are to take place in winter term 2027. Every third year beginning 2030, the subcommittee will conduct a deeper review of the alignment of these courses; this is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the previous two years of data. The choice in these third-year reviews will be to either affirm our existing alignment decisions or to revise a particular aspect to keep our curriculum based on the data gathered from the previous two years. We would like as many members as possible of the original subcommittee to be invited to participate in these discussions. Historical memory and original context will be useful in informing future decisions.

Course Number and Prefix:
CH, CHE, or CHEM 227Z

Course Title:
General Chemistry I Laboratory

Course Credits:
5 for lecture and lab. (Institutions will divide these credits between lecture and lab so that the total credits for both courses equals 5 credits.)

Course Description:
Experiments correspond to the topics covered in CH/CHE/CHEM 221Z including the fundamentals of chemical measurements, quantitative relationships in chemical analysis, and understanding atomic and molecular structure. CH/CHE/CHEM 227Z is the laboratory component; CH/CHE/CHEM 221Z is the lecture course.

Course Learning Outcomes:
Students will be able to

1. Follow standard safety procedures while working with chemicals and equipment in a laboratory setting.
2. Keep an accurate and detailed laboratory record.
3. Measure, calculate, and report data and results using proper units and appropriate measures of uncertainty.
4. Analyze experimental results qualitatively and quantitatively with measures of accuracy and precision.

5. Interpret and communicate the results of experiments applying chemical concepts in CH/CHE/CHEM 221Z in a clear and concise manner.
6. Investigate chemical concepts in CH/CHE/CHEM 221Z qualitatively and quantitatively using scientific methods.

Teachout Recommendation:

The committee recommends that the 2025-2026 academic year be designated as a teachout year for students that began the general chemistry series prior to Fall 2025. As the topics in the newly aligned CH/CHE/CHEM 221Z/227Z, 222Z/228Z, 223Z/229Z differ from those taught in the unaligned courses, students could miss topics by switching mid series. Several institutions currently offer delayed "trailer" sections of each course. This proposed teachout would facilitate completion of the sequence by students already on that schedule. All schools should be allowed to offer the pre-Z CH 222 and CH 223 alongside the CCN aligned courses for the first academic year of offering the newly aligned courses. This minimizes the negative impact on students who need to finish the series if they completed CH 221 before Fall 2025. CH 221 (pre-Z) does not need to be included in the teachout plan as students entering the series would begin in CH/CHE/CHEM 221Z and CH/CHE/CHEM 227Z in the Fall of 2025**.**

Review Cycle:

There will be an annual review cycle of these courses beginning 2027. The annual review will have a twofold purpose:

1. to review the transfer effectiveness of the courses and
2. to gather information about challenges, concerns, or changes needed from the OPUs and CCs.

These reviews are to take place in winter term 2027. Every third year beginning 2030, the subcommittee will conduct a deeper review of the alignment of these courses; this is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the previous two years of data. The choice in these third-year reviews will be to either affirm our existing alignment decisions or to revise a particular aspect to keep our curriculum based on the data gathered from the previous two years. We would like as many members as possible of the original subcommittee to be invited to participate in these discussions. Historical memory and original context will be useful in informing future decisions.

Course Number and Prefix:

CH, CHE, or CHEM 228Z

Course Title:

General Chemistry II Laboratory

Course Credits:

5 for lecture and lab. (Institutions will divide these credits between lecture and lab so that the total credits for both courses equals 5 credits.)

Course Description:
Experiments correspond to the topics covered in CH/CHE/CHEM 222Z including the fundamentals of intermolecular interactions, stoichiometric relationships, chemical equilibria and their application to the synthesis, identification, and analysis of chemical compounds. CH/CHE/CHEM 228Z is the laboratory component; CH/CHE/CHEM 222Z is the lecture course.

Course Learning Outcomes:
Students will be able to

1. Follow standard safety procedures while working with chemicals and equipment in a laboratory setting.
2. Keep an accurate and detailed laboratory record.
3. Measure, calculate, and report data and results using proper units and appropriate measures of uncertainty.
4. Analyze experimental results qualitatively and quantitatively with measures of accuracy and precision.
5. Interpret and communicate the results of experiments applying chemical concepts in CH/CHE/CHEM 222Z in a clear and concise manner.
6. Investigate chemical concepts in CH/CHE/CHEM 222Z qualitatively and quantitatively using scientific methods.

Teachout Recommendation:
The committee recommends that the 2025-2026 academic year be designated as a teachout year for students that began the general chemistry series prior to Fall 2025. As the topics in the newly aligned CH/CHE/CHEM 221Z/227Z, 222Z/228Z, 223Z/229Z differ from those taught in the unaligned courses, students could miss topics by switching mid series. Several institutions currently offer delayed “trailer” sections of each course. This proposed teachout would facilitate completion of the sequence by students already on that schedule. All schools should be allowed to offer the pre-Z CH 222 and CH 223 alongside the CCN aligned courses for the first academic year of offering the newly aligned courses. This minimizes the negative impact on students who need to finish the series if they completed CH 221 before Fall 2025. CH 221 (pre-Z) does not need to be included in the teachout plan as students entering the series would begin in CH/CHE/CHEM 221Z and CH/CHE/CHEM 227Z in the Fall of 2025.

Review Cycle:
There will be an annual review cycle of these courses beginning 2027. The annual review will have a twofold purpose:

3. to review the transfer effectiveness of the courses and
4. to gather information about challenges, concerns, or changes needed from the OPUs and CCs.

These reviews are to take place in winter term 2027. Every third year beginning 2030, the subcommittee will conduct a deeper review of the alignment of these courses; this is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the previous two years of data. The choice in these third-year reviews will be to either affirm our existing alignment decisions or to revise a particular aspect

to keep our curriculum based on the data gathered from the previous two years. We would like as many members as possible of the original subcommittee to be invited to participate in these discussions. Historical memory and original context will be useful in informing future decisions.

Course Number and Prefix:
CH, CHE, or CHEM 229Z

Course Title:
General Chemistry III Laboratory

Course Credits:
5 for lecture and lab. (Institutions will divide these credits between lecture and lab so that the total credits for both courses equals 5 credits.)

Course Description:
Experiments correspond to the topics covered in CH/CHE/CHEM 223Z including the principles of chemical equilibria and their application to chemical analysis using volumetric and electrochemical methods. CH/CHE/CHEM 229Z is the laboratory component; CH/CHE/CHEM 223Z is the lecture course.

Course Learning Outcomes:
Students will be able to

1. Follow standard safety procedures while working with chemicals and equipment in a laboratory setting.
2. Keep an accurate and detailed laboratory record.
3. Measure, calculate, and report data and results using proper units and appropriate measures of uncertainty.
4. Analyze experimental results qualitatively and quantitatively with measures of accuracy and precision.
5. Interpret and communicate the results of experiments applying chemical concepts in CH/CHE/CHEM 223Z in a clear and concise manner.
6. Investigate chemical concepts in CH/CHE/CHEM 223Z qualitatively and quantitatively using scientific methods.

Teachout Recommendation:
The committee recommends that the 2025-2026 academic year be designated as a teachout year for students that began the general chemistry series prior to Fall 2025. As the topics in the newly aligned CH/CHE/CHEM 221Z/227Z, 222Z/228Z, 223Z/229Z differ from those taught in the unaligned courses, students could miss topics by switching mid series. Several institutions currently offer delayed “trailer” sections of each course. This proposed teachout would facilitate completion of the sequence by students already on that schedule. All schools should be allowed to offer the pre-Z CH 222 and CH 223 alongside the CCN aligned courses for the first academic year of offering the newly aligned courses. This minimizes the negative impact on students who need to finish the series if they completed CH 221 before Fall 2025. CH 221 (pre-Z) does not need to be included in the

teachout plan as students entering the series would begin in CH/CHE/CHEM 221Z and CH/CHE/CHEM 227Z in the Fall of 2025.

Review Cycle:
There will be an annual review cycle of these courses beginning 2027. The annual review will have a twofold purpose:

1. to review the transfer effectiveness of the courses and
2. to gather information about challenges, concerns, or changes needed from the OPUs and CCs.

These reviews are to take place in winter term 2027. Every third year beginning 2030, the subcommittee will conduct a deeper review of the alignment of these courses; this is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the previous two years of data. The choice in these third-year reviews will be to either affirm our existing alignment decisions or to revise a particular aspect to keep our curriculum based on the data gathered from the previous two years. We would like as many members as possible of the original subcommittee to be invited to participate in these discussions. Historical memory and original context will be useful in informing future decisions.

Course Number and Prefix:
EC or ECON 201Z

Course Title:
Principles of Microeconomics

Course Credits:
4

Course Description:
Examines how consumers and firms make choices when facing scarce resources, and how those choices are related to government policy and market outcomes, such as prices and output.

Course Learning Outcomes:

1. Articulate the concepts of opportunity costs and trade-offs.
2. Explain producer and consumer behavior using economic models.
3. Analyze the relationship between supply and demand and its applications across various economic contexts.
4. Identify the impact of market failures and government policy on efficiency and welfare.

Review Cycle:
The subcommittee proposes that the annual review cycle of these courses serve a two-fold purpose:

1. to review the transfer effectiveness of the courses and
2. to gather information about challenges, concerns, or changes needed from the 24 two- and four-year schools in the state.

We propose that the initial review takes place during Spring term 2027 under the assumption that the CCN approved outlines will go into effect no later than Fall 2025.

The subcommittee recommends a deeper review of the alignment of these courses takes place every three years, with the first such review beginning in Fall 2029. This is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the available data since the last three-year review was concluded. The three-year review process will culminate in a recommendation to either affirm the existing alignment decisions or to revise a particular aspect of the alignment, as deemed appropriate by the subcommittee.

Course Number and Prefix:
EC or ECON 202Z

Course Title:
Principles of Macroeconomics

Course Credits:
4

Course Description:
Examines the aggregate activity of a market economy, economic growth, inflation, unemployment, and the use of fiscal and monetary policy to address macroeconomic problems.

Course Learning Outcomes:

1. Interpret basic macroeconomic indicators including GDP, unemployment, and inflation.
2. Identify the determinants of economic growth.
3. Apply economic models to explain macroeconomic outcomes.
4. Compare fiscal and monetary policy tools, and their uses and economic impacts.

Review Cycle:
The subcommittee proposes that the annual review cycle of these courses serve a two-fold purpose:

3. to review the transfer effectiveness of the courses and
4. to gather information about challenges, concerns, or changes needed from the 24 two- and four-year schools in the state.

We propose that the initial review takes place during Spring term 2027 under the assumption that the CCN approved outlines will go into effect no later than Fall 2025.

The subcommittee recommends a deeper review of the alignment of these courses takes place every three years, with the first such review beginning in Fall 2029. This is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the available data since the last three-year review was concluded. The three-year review process will culminate in a recommendation to either affirm the existing

alignment decisions or to revise a particular aspect of the alignment, as deemed appropriate by the subcommittee.

Course Number and Prefix:
SOC or SOAN 204Z

Course Title:
Introduction to Sociology

Course Credits:
4

Course Description:
Introduces the central concepts, theories, and methods that define the sociological approach to investigating the social forces that shape our lives. Topics may include social structure, culture, socialization, race, class, gender, sexuality, and inequality.

Course Learning Outcomes:

1. Describe the central concepts, theories, and methods that define sociological approaches to social scientific inquiry.
2. Analyze social life using sociological concepts and theories.
3. Explain how the sociological imagination interrelates different levels of analysis such as social structures and individuals.
4. Identify how social factors contribute to inequalities in society.
5. Explain the role of theory and evidence in building sociological knowledge.

Review Cycle:
The subcommittee proposes that the annual review cycle of these courses serve a two-fold purpose:

1. to review the transfer effectiveness of the courses, and
2. to gather information about challenges, concerns, or changes needed from the 24 two- and four-year schools in the state.

We propose that the initial review takes place during Spring term 2027 under the assumption that the CCN approved outlines will go into effect no later than Fall 2025.

The subcommittee recommends a deeper review of the alignment of these courses takes place every three years, with the first such review beginning in Fall 2029. This is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the available data since the last three-year review was concluded. The three-year review process will culminate in a recommendation to either affirm the existing alignment decisions or to revise a particular aspect of the alignment, as deemed appropriate by the subcommittee.

The subcommittee recommends that as many members of the original subcommittee be invited to participate in these discussions as possible. Historical memory and original context will be useful in informing future decisions.

Course Number and Prefix:
SOC or SOAN 205Z

Course Title:
Social Change and Institutions

Course Credits:
4

Course Description:
Sociological analysis of social institutions, such as family, education, health care, the economy, and the state. Includes an examination of connections among institutions and their impact on patterns of inequality and individual outcomes. Examines the forces and dynamics behind social change, such as social movements, culture, economic forces, technologies, and the environment.

Course Learning Outcomes:

1. Discuss the history of key social institutions.
2. Analyze major social institutions and change using sociological concepts, theory, and research.
3. Describe how the structure of institutions shapes patterns of social inequality.
4. Discuss diversity of experiences that individuals have with institutions based on group membership, such as race and ethnicity, gender, sexuality, and social class.
5. Describe how and why societies change over time.

Review Cycle:
The subcommittee proposes that the annual review cycle of these courses serve a two-fold purpose:

3. to review the transfer effectiveness of the courses, and
4. to gather information about challenges, concerns, or changes needed from the 24 two- and four-year schools in the state.

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Course Number and Prefix:
SOC or SOAN 206Z

Course Title:
Social Problems

Course Credits:
4

Course Description:
Applies the sociological perspective to the study of social problems, including their social construction, causes, and consequences. Explores the complexities surrounding their solutions, such as how solutions are socially constructed and policy proposals from sociologists and social movements. Topics may include poverty, discrimination, interpersonal violence, crime, addiction, ecological crises, war/global conflict, and health inequality.

Course Learning Outcomes:

1. Describe the ways in which social problems are defined and constructed.
2. Apply the sociological perspective to identify and analyze social problems.
3. Distinguish between individual and structural explanations of social problems.
4. Assess the effects of social problems using empirical evidence.
5. Examine the structural, institutional, and cultural roots of social problems.
6. Assess solutions to address social problems.

Review Cycle:
The subcommittee proposes that the annual review cycle of these courses serve a two-fold purpose:

5. to review the transfer effectiveness of the courses, and
6. to gather information about challenges, concerns, or changes needed from the 24 two- and four-year schools in the state.

We propose that the initial review takes place during Spring term 2027 under the assumption that the CCN approved outlines will go into effect no later than Fall 2025.

The subcommittee recommends a deeper review of the alignment of these courses takes place every three years, with the first such review beginning in Fall 2029. This is the only time that the subcommittee will consider a vote to modify the aligned content of the course, using the available data since the last three-year review was concluded. The three-year review process will culminate in a recommendation to either affirm the existing alignment decisions or to revise a particular aspect of the alignment, as deemed appropriate by the subcommittee.

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