CIC Approval:
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM:

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, MESA, AND MIRAMAR COLLEGES
# ASSOCIATE DEGREE COURSE OUTLINE

## SECTION I

**SUBJECT AREA AND COURSE NUMBER:** Chemistry 100

**COURSE TITLE:**
Fundamentals of Chemistry

**Units:**
3
Letter Grade or Pass/No Pass Option

**CATALOG COURSE DESCRIPTION:**

This course is an introductory study of the language and tools of chemistry. Basic concepts of the structure, properties, interactions of matter and energy are studied, both qualitatively and quantitatively. Emphasis is placed on matter, chemical changes, chemical conversions, chemical bonding, and acid-base chemistry. This course is intended for students majoring in nursing, nutrition, or animal health technology and provides a foundation for further coursework in chemistry, in particular for introductory organic chemistry.

**REQUISITES:**

**Prerequisite:**
MATH 92 with a grade of "C" or better, or equivalent or Milestone M40
or
MATH 96 with a grade of "C" or better, or equivalent or Milestone M50

**Corequisite: Completion of or concurrent enrollment in:**

CHEM 100L with a grade of "C" or better, or equivalent

**Limitation on Enrollment:**

This course is not open to students with previous credit for or concurrent enrollment in CHEM 200

**Limitation on Enrollment:**

This course is not open to students with previous credit for Chemistry 152

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU CSU General Education IGETC UC Transfer Course List

**CID:**
CHEM 101 (CHEM 100, CHEM 100L)

**TOTAL LECTURE HOURS:**
48 - 54

**TOTAL LAB HOURS:**

**TOTAL CONTACT HOURS:**
48 - 54

**OUTSIDE-OF-CLASS HOURS:**
96 - 108

**TOTAL STUDENT LEARNING HOURS:**
144 - 162

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

1. Use appropriate vocabulary to explain the steps of the scientific method.
2. Compare and contrast the properties of the states of matter, classify matter and explain how it can be altered through chemical and physical changes, and describe how matter and energy interact.
3. Use English, metric and SI units to express measurements of length, volume, mass, density, temperature and energy, and perform unit conversions using dimensional analysis.
4. Explain the key concepts and models leading to the development of atomic theory.
5. Apply concepts regarding the structure of the nucleus to explain principles of isotopes, nuclear stability and nuclear reactions.
6. Apply the concepts of modern atomic theory.
7. Use the periodic table of the elements to identify metals, nonmetals, metalloids, groups, periods, atomic numbers and atomic masses, and explain periodic trends in the properties of the elements.
8. Compare and contrast different types of bonding, and use Lewis structures and the valence shell electron pair repulsion (VSEPR) model to determine the shapes and polarities of molecular substances.
9. Describe the effects of bond type and molecular polarity on intermolecular forces and the properties of substances.
10. Name and write chemical formulae for binary covalent compounds, simple ionic compounds and acids, and derive quantitative information from the formulae.
11. Classify chemical reactions and write balanced chemical equations to express those reactions.
12. Use the mole concept and Avogadro's number to perform mole and stoichiometric calculations.
13. Employ Boyle's Law, Charles' Law and the Ideal Gas Law to study the relationships among pressure, volume, temperature and quantity of gases, and use the kinetic molecular theory to explain these relationships.
14. Explain the factors that affect the formation of solutions and perform concentration calculations, including dilution and solution preparation problems.
15. Describe the properties of acids and bases.
16. Explain the concept of equilibrium.
17. Relate pH to hydrogen/hydronium ion and hydroxide ion concentrations and perform pH calculations for strong acids and bases.

## SECTION II

### 1. COURSE OUTLINE AND SCOPE:

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

I. Scientific Method
   A. Observations and experimentation
   B. Hypothesis formulation and testing
   C. Theory
II. Matter and energy
   A. States of matter
   B. Chemical and physical properties of matter
   C. Classification of matter
   D. Chemical and physical changes of matter
III. Scientific data

- A. Quantitative values
  - 1. Scientific notation
  - 2. Measurement and error
  - 3. Significant figures
- B. Units
  - 1. English versus metric and SI systems
  - 2. Dimensional analysis

IV. Atomic theory
- A. Dalton's theory
- B. Subatomic particles and isotopes
- C. Bohr model
- D. Modern atomic theory
  - 1. Electron configurations
  - 2. Atomic structure and the periodic table
  - 3. Periodicity

V. Chemical bonding
- A. Octet rule
- B. Ionic bonding
- C. Covalent bonding
  - 1. Lewis structures
  - 2. Bond polarity
  - 3. VSEPR theory

VI. Nomenclature and formula writing
- A. Inorganic nomenclature
  - 1. Binary covalent compounds
  - 2. Ionic compounds
  - 3. Acids
- B. Quantitative aspects of chemical formulae
  - 1. Percent composition
  - 2. Empirical and molecular formulae

VII. Chemical equations
- A. Types of chemical reactions
  - 1. Combustion
  - 2. Oxidation-reduction
  - 3. Double replacement
- B. Writing balanced chemical equations

VIII. Chemical calculations
- A. Mole calculations
  - 1. Avogadro's number
  - 2. Molar mass
- B. Stoichiometry

IX. Gases
- A. Kinetic molecular theory
- B. Gas laws
  - 1. Boyle's Law
  - 2. Charles' Law
  - 3. Ideal Gas Law
- C. Kelvin temperature scale

X. Solutions
- A. Solution formation
  - 1. Solute-solvent interactions and solubility
  - 2. Electrolytes
- B. Concentration Units
  - 1. Molarity
  - 2. Percent
  - 3. Parts per
- C. Solution Preparation Calculations
  - 1. Solute mass
  - 2. Dilution

XI. Acids and bases

A. Properties
B. Acid-base theories
1. Arrhenius theory
2. Bronsted-Lowry theory
C. Conjugate acid-base pairs
D. Equilibrium and acid strength
E. pH calculations
F. Buffers in concept

XII. Intermoleular Forces
A. Molecular Polarity
B. Effects on properties of substances
C. Like dissolves like

XIII. Equilibrium qualitative only

XIV. Nuclear Chemistry
A. Isotopes
B. Nuclear stability
C. Nuclear reactions
1. Types of nuclear reactions
2. Applications
a. Dating
b. Medical applications

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. The assigned text book.
II. Instructor packets and/or handouts clarifying course objectives. For example, a handout summarizing inorganic chemical nomenclature would be appropriate.
III. Selections from the science section of periodicals and newspapers that discuss chemical principles in the course.
IV. Selection of articles from Internet sites that may supplement topics in the course or provide animations that show key principles.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Writing of balanced chemical equations.
II. Writing of common formulas for acid, bases, and salts.
III. A short essay comparing and contrasting strong vs. weak acids.
IV. Short essay on the blood's buffering system.
V. A short essay on the use of radioisotopes in medicine.
VI. Short essays applying chemical principles to allied health fields.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Problem solving related to pH and buffers and molarity and dilution.
II. Reading articles that link chemical principles to medicine, nutrition, or any allied health fields.
III. A short essay on the use of radioisotopes in medicine.
IV. A short essay on how the buffer system of the blood.
V. Analyze how a biological reaction is a type of oxidation-reduction.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Using dimensional analysis, solve problems related to conversions of drug dosages into different units.
II. Solving of molarity and dilution problems.
III. Compare and contrast the effects of different bond types on the nature of intermolecular forces and their effects on properties of substances.
IV. Short essay explaining the differences between a strong acid and weak acid in terms of equilibrium.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Performance on written and oral quizzes and examinations that test students' theoretical and practical knowledge of chemistry at the introductory level.
II. Performance on outside assignments including writing assignments designed to enhance students' interpretive and problem-solving abilities.
III. Class participation.

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Computer Assisted Instruction
* Distance Education (Fully online)
* Distance Education (Partially online)
* Lecture

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**
1. Bishop, Mark. An Introduction to Chemistry, 2nd ed. Chiral Publishing, 2017, ISBN: 9780977810581
2. Russo, Steve and Mike Silver. Introductory Chemistry, 5th ed. Prentice Hall, 2014, ISBN: 9780321927118
3. Timberlake, Karen. Basic Chemistry, 11th ed. Pearson, 2017, ISBN: 9780134138046

**MANUALS:**

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**
1. Study guides and/or solution manuals to accompany textbooks
2. Supplementary packets prepared by instructors
3. Scientific calculator

**ORIGINATOR:** Paula Gustin
**ORIGINATION DATE:** 02/25/2019
**PROPOSAL ORIGINATOR:** Paula Gustin
**CO-CONTRIBUTOR(S)**
**PROPOSAL DATE:** 01/17/2023

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**
**COURSE PROPOSAL IMPACT REPORT**

**COURSE TO BE PROPOSED:** CHEM 100
Fundamentals of Chemistry

**ACTIVE/APPROVED COURSES IMPACTED:**

CHEM 100 Fundamentals of Chemistry (29474)

Prerequisite
- BIOL 205 (Active)
- CHEM 130 (Active)
- CHEM 130L (Active)
- MLTT 210 (Active)
- MLTT 211 (Active)
- MLTT 212 (Active)
- MLTT 213 (Active)
- NUTR 155 (Active)

Corequisite: Completion of or concurrent enrollment in
- CHEM 100L (Active)

Advisory
- BIOL 132 (Active)
- BIOL 133 (Active)
- BIOL 235 (Active)
- MFET 115 (Active)
- VTAH 140 (Active)

**DISTRICT GENERAL EDUCATION:**

B2 Natural Sciences - Physical Sciences

**ACTIVE/APPROVED/PROPOSED PROGRAMS IMPACTED:**

( **City** )
Agriculture Plant Science *Active*;
**Associate in Science for Transfer Degree**

Major Courses

( **Mesa** )
Allied Health Track *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **City** )
Allied Health Track *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **Mesa** )
Allied Health Track *Approved*;

**Associate of Science Degree**

Courses Required for the Major:

( **Miramar** )
Biology for Allied Health *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **City** )
Chemistry Laboratory Technician *Pending*;
**Certificate of Achievement**

Medical Laboratory Technician:

( **City** )
Electromechanical Technology *Active*;
**Certificate of Performance**

Courses required for the Certificate:

( **Mesa** )
Elementary Teacher Education *Active*;
**Associate in Arts for Transfer Degree**

Major Courses

( **Miramar** )
Exercise and Nutritional Sciences *Active*;
**Associate of Science Degree**

Select at least one course and the remainder of units needed to meet the minimum of 18 from the following:

( **Miramar** )
Exercise and Nutritional Sciences *Launched*;
**Associate of Science Degree**

Select at least one course and the remainder of units needed to meet the minimum of 18 from the following:

( **City** )
Geography *Active*;
**Associate of Science Degree**

Select eight units from:

( **Mesa** )
Liberal Arts & Sciences: Science Studies-Kinesiology & Nutrition *Active*;
**Associate of Arts Degree**

Major Courses

( **City** )
Liberal Arts and Sciences in Scientific Studies Physical and Earth Sciences Specialization *Approved*;

**Associate of Arts Degree**

Major Courses

( **Mesa** )
Liberal Arts and Sciences: Science Studies-Pre-Nursing *Active*;
**Associate of Arts Degree**

Major Courses

( **Mesa** )
Liberal Arts and Sciences: Science Studies-Psychology *Active*;
**Associate of Arts Degree**

Select a minimum of 5 units (total of 18 units):

( **Mesa** )
Liberal Arts and Sciences: Science Studies-Psychology *Launched*;
**Associate of Arts Degree**

Select a minimum of 5 units (total of 18 units):

( **City** )
Liberal Arts and Sciences: Scientific Studies Physical and Earth Sciences Specialization *Approved*;
**Associate of Arts Degree**

Major Courses

( **City** )
Liberal Arts and Sciences: Scientific Studies Physical and Earth Sciences Specialization *Pending*;
**Associate of Arts Degree**

Major Courses

( **City** )
Manufacturing Engineering Technology - Option: Electronics *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **City** )
Manufacturing Engineering Technology - Option: Fabrication *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **City** )
Manufacturing Engineering Technology - Option: Fabrication *Pending*;
**Associate of Science Degree**

Courses Required for the Major:

( **Mesa** )
Nutrition *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **Mesa** )
Nutrition *Active*;
**Certificate of Achievement**

Courses Required for the Major:

( **Mesa** )
Nutrition and Dietetics *Active*;
**Associate in Science for Transfer Degree**

CATEGORY B: SELECT A MINIMUM OF ONE COURSE FROM THE FOLLOWING OR ANY COURSE NOT SELECTED IN CATEGORY A (3-5 units)

( **Mesa** )
Nutrition and Dietetics *Pending*;
**Associate in Science for Transfer Degree**

CATEGORY B: SELECT A MINIMUM OF ONE COURSE FROM THE FOLLOWING OR ANY COURSE NOT SELECTED IN CATEGORY A (3-5 units)

( **Mesa** )
Physical Sciences *Active*;
**Associate of Science Degree**

At least 8 units from the following:

( **Mesa** )
Physical Sciences *Launched*;
**Associate of Science Degree**

At least 8 units from the following:

( **Mesa** )
Physical Sciences *Active*;
**Certificate of Achievement**

At least 8 units from the following:

( **Mesa** )
Physical Sciences *Launched*;
**Certificate of Achievement**

At least 8 units from the following:

( **Miramar** )
Psychology *Active*;
**Associate in Arts for Transfer Degree**

Select at least 3 units from the following courses (not already selected above):

( **Miramar** )
Psychology *Approved*;
**Associate in Arts for Transfer Degree**

Select at least 3 units from the following courses (not already selected above):

( **Mesa** )
Psychology *Active*;
**Associate in Arts for Transfer Degree**

Select one course from the following (not selected above):

( **Mesa** )
Psychology *Active*;
**Associate in Arts for Transfer Degree**

Select one of the following courses (not selected above):

( **Miramar** )
Social and Behavioral Sciences *Active*;
**Associate of Arts Degree**

Select at least one course and the remainder of units needed to meet the minimum of 18 from the following:

( **City** )
Solar Turbines, Incorporated Apprenticeship *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **City** )
Solar Turbines, Incorporated Apprenticeship *Active*;
**Certificate of Achievement**

Courses Required for the Major:

( **City** )
Sustainable Urban Agriculture *Active*;
**Associate of Science Degree**

Major Courses

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

CITY , MESA AND MIRAMAR COLLEGES

**Course Outline of Record:**
**Curriculum Proposal Report**

## SECTION I

I. **Subject Area:** Chemistry
II. **Course Number:** 100
III. **Course Title:** Fundamentals of Chemistry
IV. **Disciplines (Instructor Minimum Qualifications):** Chemistry
V.
VI. **Family:**
VII. **Current Short Title:** Fundamentals of Chemistry
VIII. **Course Is Active/Where?** CITY , MESA AND MIRAMAR
IX. **Originating Campus:** MESA
X. **Action Proposed:** Course Revision (May Include Activation)
XI. **Distance Education Proposed At:** City and Miramar
XII. **Proposal Originating Date:** 01/17/2023
XIII. **Proposed Start Semester:** Summer 2023
XIV. **Field Trip:** May be required
XV. **Grading Option:** Letter Grade or Pass/No Pass Option
XVI. **Current Short Description:** Intro to the language and tools of chemistry.

## SECTION II

## COURSE ENROLLMENT INFORMATION

I. **Requisites:**
Prerequisite: MATH 92 with a grade of "C" or better, or equivalent. Intended to establish communication or computational skills or Milestone M40
or Prerequisite: MATH 96 with a grade of "C" or better, or equivalent. Required for articulation by a UC/CSU institution or Milestone M50
Corequisite: Completion of or concurrent enrollment in: CHEM 100L with a grade of "C" or better, or equivalent.
Limitation on Enrollment:: This course is not open to students with previous credit for or concurrent enrollment in CHEM 200
Limitation on Enrollment:: This course is not open to students with previous credit for Chemistry 152
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:** Textbook latest editions

## COURSE ANALYSIS DATA

I. **Reason for Proposed Action:** Distance Ed revision to change from Fully Online to Partially Online.
II. **How Does The Course Fit The College Mission?** 1. Transfer
III. **Current Transfer Options:** 1. CSU General Education 2. IGETC 3. UC Transfer Course List
IV. **Proposed College/District Purpose:** 1. District general education 2. Major Requirement - Associate Degree 3. Major Requirement - Certificate of Achievement
V. **Extraordinary Cost to the College:** None.
VI. **Library Resource Materials:** No new resources required.

## GENERAL EDUCATION ANALYSIS

**CSU General Education:**
B1 Area B. Scientific Inquiry and Quantitative Reasoning - Physical Science

**District General Education:**
B2 Natural Sciences - Physical Sciences

**IGETC:**
Area 5. Physical and Biological Sciences - 5A: Physical Science

**UC Transfer Course:**
Yes

**REQUISITES ANALYSIS**

**Able to illustrate knowledge of elementary inorganic and physical chemistry.**

I. **Course: CHEM 100L Use units and significant figures correctly when making simple laboratory measurements, such as mass, volume, length, density, and temperature.**
II. **Course: CHEM 100L Explain the differences between elements, compounds, mixtures, and solutions, and apply a variety of techniques to separate heterogeneous mixtures and solutions into their components.**
III. **Course: CHEM 100L Employ scientific reasoning in the chemistry lab by collecting and organizing data, developing a hypothesis, testing a model and by distinguishing between observations and conclusions.**
IV. **Course: CHEM 100L Use common chemical and physical properties of matter to differentiate between a chemical and a physical change.**
V. **Course: CHEM 100L Identify different types of chemical reactions and predict their products.**
VI. **Course: CHEM 100L Use the mole concept in a variey of applications, including to analyze a chemical compound, to determine the molar relationships of its components and/or its empirical formula.**
VII. **Course: CHEM 100L Calculate stoichiometric relationships in chemical reactions.**
VIII. **Course: CHEM 100L Describe the properties of solutions and how to prepare solutions to specified concentrations.**
IX. **Course: CHEM 100L Use titration to determine the concentration of a solution and a volumetric pipet and/or buret to measure solution volume.**
X. **Course: CHEM 100L Describe the properties of acids and bases, recognize whether a given pH value represents an acidic, basic, or neutral solution.**

**Basic algebraic skills**

I. **Course: MATH 92 Perform the basic arithmetic operations with real numbers using exponents and the appropriate order of operations.**
II. **Course: MATH 92 Apply properties of equality to solve linear equations and related application problems.**
III. **Course: MATH 96 Solve systems of linear equations in three variables using a variety of methods, including matrices.**
IV. **Course: MATH 92 Determine the equation for a linear function and graph it.**
V. **Course: MATH 92 Perform the basic arithmetic operations with polynomials.**
VI. **Course: MATH 96 Create graphs of systems of linear inequalities in two variables and determine the solution set.**
VII. **Course: MATH 92 Factor polynomial expressions using a variety of methods.**
VIII. **Course: MATH 96 Simplify and perform basic arithmetic operations on radical expressions in both radical and exponential form and solve radical equations.**
IX. **Course: MATH 92 Solve quadratic equations by factoring and use of the quadratic formula.**
X. **Course: MATH 96 Create graphs of nonlinear functions using various methods, including transformations.**
XI. **Course: MATH 92 Graph quadratic functions.**
XII. **Course: MATH 96 Perform basic arithmetic operations with complex numbers.**
XIII. **Course: MATH 92 Identify functions from their equations and graphs and use appropriate functional notation.**
XIV. **Course: MATH 96 Solve quadratic equations including those having complex number solutions.**
XV. **Course: MATH 92 Perform the basic arithmetic operations with rational expressions.**
XVI. **Course: MATH 92 Solve systems of linear equations in two variables graphically and algebraically.**
XVII. **Course: MATH 96 Perform basic algebra with functions, determine whether a function is one-to-one and find the inverse of a one-to-one function.**

XVIII. **Course: MATH 92 Solve exponential and logarithmic equations and applications.**
XIX. **Course: MATH 96 Use the properties of and relationship between exponential and logarithmic functions to solve a variety of application problems.**
XX. **Course: MATH 92 Apply the correct notation when identifying, simplifying and using arithmetic and geometric series and sequences.**
XXI. **Course: MATH 96 Determine the type and pattern of simple sequences, including arithmetic and geometric sequences, and use appropriate notation in expressing the closed form of the sequence.**
XXII. **Course: MATH 96 Apply arithmetic and geometric sequences and their sums in solving related problems.**

**SECTION III**

**COURSE DISTANCE EDUCATION INFORMATION**

I. **MESA**
II. **Distance Education Methods of Instruction:** 1. Partially online only
III. **Other Distance Education Methods:**
IV. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
As needed
**Participant/s**: Faculty to Student/s
2. Discussion Board
Weekly
**Participant/s**: Faculty to Student/s , Among Students
3. Email/Message System
As needed
**Participant/s**: Faculty to Student/s , Among Students
4. Synchronous or Asynchronous Video
Frequent
**Participant/s**: Faculty to Student/s , Among Students
V. **List of Techniques:** Online instruction includes regular student-to-student and instructor-to-student communication. 1) Graded online homework/quiz assessments for each chapter with immediate feedback for correct and incorrect responses. 2) Frequent instructor-student interaction through the class discussion board and chat rooms for guidance of the student in the learning process. These interactions constitute the class participation portion of the final grade. 3) Weekly office hours. 4) Email for individual student-student and instructor-student communication. 5) The corequisite of CHEM 100L will be strictly enforced.
VI. **How to Evaluate Students for Achieved Outcomes:** Examinations will be predominately in person with some online assessments and assignments. Student performance on these assignments will be evaluated and scored accordingly.
VII. **Additional Resources/Materials/Information:** SDCCD and DSPS personnel will provide all needed accommodations. DSPS will provide a student in an online classroom with the same level of support as an on-campus student. Instructor prepared lecture notes are posted online for each chapter. The notes both complement and supplement the textbook in an accessible and easy to read format. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
VIII. **Audio Visual Library Materials:** NO
IX. **CITY**
X. **Distance Education Methods of Instruction:** 1. Fully Online
XI. **Other Distance Education Methods:**
XII. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
weekly
2. Chat Rooms
as assigned
3. Collaborative Web Documents
as assigned
4. Conferencing
as assigned
5. Discussion Board

at least three times during the term
6. Email/Message System
as needed
7. Field Trips
as assigned
8. Group Meetings
as assigned
9. Individual Meetings
as needed
10. Individualized Assignment Feedback
as assigned
11. Synchronous or Asynchronous Video
as assigned
12. Telephone Contact
As needed

XIII. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

XIV. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

XV. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XVI. **Audio Visual Library Materials:** NO

XVII. **MIRAMAR**

XVIII. **Distance Education Methods of Instruction:** 1. Fully Online

XIX. **Other Distance Education Methods:**

XX. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
weekly
2. Chat Rooms
as assigned
3. Collaborative Web Documents
as assigned
4. Conferencing
as assigned
5. Discussion Board
at least three times during the term with the instructor and with other students
6. Email/Message System
as needed
7. Group Meetings
as assigned
8. Individual Meetings
as needed
9. Individualized Assignment Feedback
as assigned
10. Synchronous or Asynchronous Video
as assigned
11. Telephone Contact
as needed

XXI. **List of Techniques:** Students interact with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via email, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group

projects, asynchronous class discussion, and/or other assignments.

XXII. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

XXIII. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provides a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XXIV. **Audio Visual Library Materials:** NO

## SECTION IV

## COURSE STUDENT LEARNING OUTCOME(S)

### CITY

- Utilize critical thinking skills in a variety of scientific applications. Course objective/outcome: Use English, metric and SI units to express measurements of length, volume, mass, density, temperature and energy, and perform unit conversions using dimensional analysis.

### MESA

- Use current theories to describe atoms and compounds.
- Describe and/or write structure. Correlate the relationships between structure and properties.
- Understand and use nomenclature systems.
- Write and explain chemical pathways.
- Use and/or understand accepted standards in measuring, and analyzing data with the use of mathematical models and calculations.

### MIRAMAR

- Students should recognize the type of intermolecular forces a chemical possesses

## SECTION V

## COURSE DATA ADMINISTRATION ELEMENTS

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1905.00 Chemistry, General
**SAM Code:** E - Non Occupational
**Course Prior to College Level (CB21):** Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):** Y = Not applicable
**Course Support Course Status (CB26):** N = Course is not a support course
**Major Restriction Code:** NONE

II. **Lect Units:** 3.00
**Total Units:** 3
**Lecture Hours Min:** 48.00 **Max:** 54.00
**Lab Hours Min:** 0.00 **Max:** 0.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 48.00 **Max:**54.00
**Outside-of-Class Hours Min:** 96.00 **Max:**108.00
**Total Student Learning Hours Min:** 144.00 **Max:** 162.00
**FTEF Lecture Min:** 0.2000 **Max:**
**FTEF Lab Min:** 0.0000 **Max:**
**FTEF Total Min:** 0.2000 **Max:**

III. **Last Time Pre/Co Requisite Update:** 01/17/2023
IV. **Last Outline Revision Date:** 05/09/2019
V. **CIC Approval:**
VI. **BOT Approval:**
VII. **State Approval:**
VIII. **Revised State Approval:**
IX. **Course Approval Effective Date:**

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

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## Previous Report

CHEM 100

CIC Approval: 05/09/2019
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM: Fall 2020

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**
**CITY, MESA, AND MIRAMAR COLLEGES**
**ASSOCIATE DEGREE COURSE OUTLINE**

**SECTION I**

**SUBJECT AREA AND COURSE NUMBER:** Chemistry 100

**COURSE TITLE:** Fundamentals of Chemistry
**Units:** 3
Letter Grade or Pass/No Pass Option

**CATALOG COURSE DESCRIPTION:**

This course is an introductory study of the language and tools of chemistry. Basic concepts of the structure, properties, interactions of matter and energy are studied, both qualitatively and quantitatively. Emphasis is placed on matter, chemical changes, chemical conversions, chemical bonding, and acid-base chemistry. This course is intended for students majoring in nursing, nutrition, or animal health technology and provides a foundation for further coursework in chemistry, in particular for introductory organic chemistry.

**REQUISITES:**

**Prerequisite:**
MATH 92 with a grade of "C" or better, or equivalent or Milestone M40
or
MATH 96 with a grade of "C" or better, or equivalent or Milestone M50
**Corequisite: Completion of or concurrent enrollment in:**
CHEM 100L with a grade of "C" or better, or equivalent
**Limitation on Enrollment:**
This course is not open to students with previous credit for or concurrent enrollment in CHEM 200
**Limitation on Enrollment:**
This course is not open to students with previous credit for Chemistry 152

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU CSU General Education IGETC UC Transfer Course List

**CID:**
CHEM 101 (CHEM 100, CHEM 100L)

**TOTAL LECTURE HOURS:**
48 - 54

**TOTAL LAB HOURS:**

**TOTAL CONTACT HOURS:**
48 - 54

**OUTSIDE-OF-CLASS HOURS:**
96 - 108

**TOTAL STUDENT LEARNING HOURS:**
144 - 162

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

## Current Report

CHEM 100

CIC Approval:
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM:

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**
**CITY, MESA, AND MIRAMAR COLLEGES**
**ASSOCIATE DEGREE COURSE OUTLINE**

**SECTION I**

**SUBJECT AREA AND COURSE NUMBER:** Chemistry 100

**COURSE TITLE:** Fundamentals of Chemistry
**Units:** 3
Letter Grade or Pass/No Pass Option

**CATALOG COURSE DESCRIPTION:**

This course is an introductory study of the language and tools of chemistry. Basic concepts of the structure, properties, interactions of matter and energy are studied, both qualitatively and quantitatively. Emphasis is placed on matter, chemical changes, chemical conversions, chemical bonding, and acid-base chemistry. This course is intended for students majoring in nursing, nutrition, or animal health technology and provides a foundation for further coursework in chemistry, in particular for introductory organic chemistry.

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**Prerequisite:**
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or
MATH 96 with a grade of "C" or better, or equivalent or Milestone M50
**Corequisite: Completion of or concurrent enrollment in:**
CHEM 100L with a grade of "C" or better, or equivalent
**Limitation on Enrollment:**
This course is not open to students with previous credit for or concurrent enrollment in CHEM 200
**Limitation on Enrollment:**
This course is not open to students with previous credit for Chemistry 152

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU CSU General Education IGETC UC Transfer Course List

**CID:**
CHEM 101 (CHEM 100, CHEM 100L)

**TOTAL LECTURE HOURS:**
48 - 54

**TOTAL LAB HOURS:**

**TOTAL CONTACT HOURS:**
48 - 54

**OUTSIDE-OF-CLASS HOURS:**
96 - 108

**TOTAL STUDENT LEARNING HOURS:**
144 - 162

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

1. Use appropriate vocabulary to explain the steps of the scientific method.

1. Use appropriate vocabulary to explain the steps of the scientific method.
2. Compare and contrast the properties of the states of matter, classify matter and explain how it can be altered through chemical and physical changes, and describe how matter and energy interact.
3. Use English, metric and SI units to express measurements of length, volume, mass, density, temperature and energy, and perform unit conversions using dimensional analysis.
4. Explain the key concepts and models leading to the development of atomic theory.
5. Apply concepts regarding the structure of the nucleus to explain principles of isotopes, nuclear stability and nuclear reactions.
6. Apply the concepts of modern atomic theory.
7. Use the periodic table of the elements to identify metals, nonmetals, metalloids, groups, periods, atomic numbers and atomic masses, and explain periodic trends in the properties of the elements.
8. Compare and contrast different types of bonding, and use Lewis structures and the valence shell electron pair repulsion (VSEPR) model to determine the shapes and polarities of molecular substances.
9. Describe the effects of bond type and molecular polarity on intermolecular forces and the properties of substances.
10. Name and write chemical formulae for binary covalent compounds, simple ionic compounds and acids, and derive quantitative information from the formulae.
11. Classify chemical reactions and write balanced chemical equations to express those reactions.
12. Use the mole concept and Avogadro's number to perform mole and stoichiometric calculations.
13. Employ Boyle's Law, Charles' Law and the Ideal Gas Law to study the relationships among pressure, volume, temperature and quantity of gases, and use the kinetic molecular theory to explain these relationships.
14. Explain the factors that affect the formation of solutions and perform concentration calculations, including dilution and solution preparation problems.
15. Describe the properties of acids and bases.
16. Explain the concept of equilibrium.
17. Relate pH to hydrogen/hydronium ion and hydroxide ion concentrations and perform pH calculations for strong acids and bases.

**SECTION II**

**1. COURSE OUTLINE AND SCOPE:**

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

I. Scientific Method
  A. Observations and experimentation
  B. Hypothesis formulation and testing
  C. Theory
II. Matter and energy
  A. States of matter
  B. Chemical and physical properties of matter
  C. Classification of matter
  D. Chemical and physical changes of matter
III. Scientific data
  A. Quantitative values
    1. Scientific notation
    2. Measurement and error
    3. Significant figures
  B. Units
    1. English versus metric and SI systems
    2. Dimensional analysis
IV. Atomic theory
  A. Dalton's theory
  B. Subatomic particles and isotopes
  C. Bohr model
  D. Modern atomic theory
    1. Electron configurations
    2. Atomic structure and the periodic table
    3. Periodicity
V. Chemical bonding
  A. Octet rule
  B. Ionic bonding
  C. Covalent bonding
    1. Lewis structures
    2. Bond polarity
    3. VSEPR theory
VI. Nomenclature and formula writing
  A. Inorganic nomenclature
    1. Binary covalent compounds
    2. Ionic compounds

2. Compare and contrast the properties of the states of matter, classify matter and explain how it can be altered through chemical and physical changes, and describe how matter and energy interact.
3. Use English, metric and SI units to express measurements of length, volume, mass, density, temperature and energy, and perform unit conversions using dimensional analysis.
4. Explain the key concepts and models leading to the development of atomic theory.
5. Apply concepts regarding the structure of the nucleus to explain principles of isotopes, nuclear stability and nuclear reactions.
6. Apply the concepts of modern atomic theory.
7. Use the periodic table of the elements to identify metals, nonmetals, metalloids, groups, periods, atomic numbers and atomic masses, and explain periodic trends in the properties of the elements.
8. Compare and contrast different types of bonding, and use Lewis structures and the valence shell electron pair repulsion (VSEPR) model to determine the shapes and polarities of molecular substances.
9. Describe the effects of bond type and molecular polarity on intermolecular forces and the properties of substances.
10. Name and write chemical formulae for binary covalent compounds, simple ionic compounds and acids, and derive quantitative information from the formulae.
11. Classify chemical reactions and write balanced chemical equations to express those reactions.
12. Use the mole concept and Avogadro's number to perform mole and stoichiometric calculations.
13. Employ Boyle's Law, Charles' Law and the Ideal Gas Law to study the relationships among pressure, volume, temperature and quantity of gases, and use the kinetic molecular theory to explain these relationships.
14. Explain the factors that affect the formation of solutions and perform concentration calculations, including dilution and solution preparation problems.
15. Describe the properties of acids and bases.
16. Explain the concept of equilibrium.
17. Relate pH to hydrogen/hydronium ion and hydroxide ion concentrations and perform pH calculations for strong acids and bases.

**SECTION II**

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A. **Outline Of Topics:**
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  C. Theory
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  A. States of matter
  B. Chemical and physical properties of matter
  C. Classification of matter
  D. Chemical and physical changes of matter
III. Scientific data
  A. Quantitative values
    1. Scientific notation
    2. Measurement and error
    3. Significant figures
  B. Units
    1. English versus metric and SI systems
    2. Dimensional analysis
IV. Atomic theory
  A. Dalton's theory
  B. Subatomic particles and isotopes
  C. Bohr model
  D. Modern atomic theory
    1. Electron configurations
    2. Atomic structure and the periodic table
    3. Periodicity
V. Chemical bonding
  A. Octet rule
  B. Ionic bonding
  C. Covalent bonding
    1. Lewis structures
    2. Bond polarity
    3. VSEPR theory
VI. Nomenclature and formula writing
  A. Inorganic nomenclature
    1. Binary covalent compounds
    2. Ionic compounds
    3. Acids

3. Acids
B. Quantitative aspects of chemical formulae
1. Percent composition
2. Empirical and molecular formulae
VII. Chemical equations
A. Types of chemical reactions
1. Combustion
2. Oxidation-reduction
3. Double replacement
B. Writing balanced chemical equations
VIII. Chemical calculations
A. Mole calculations
1. Avogadro's number
2. Molar mass
B. Stoichiometry
IX. Gases
A. Kinetic molecular theory
B. Gas laws
1. Boyle's Law
2. Charles' Law
3. Ideal Gas Law
C. Kelvin temperature scale
X. Solutions
A. Solution formation
1. Solute-solvent interactions and solubility
2. Electrolytes
B. Concentration Units
1. Molarity
2. Percent
3. Parts per
C. Solution Preparation Calculations
1. Solute mass
2. Dilution
XI. Acids and bases
A. Properties
B. Acid-base theories
1. Arrhenius theory
2. Bronsted-Lowry theory
C. Conjugate acid-base pairs
D. Equilibrium and acid strength
E. pH calculations
F. Buffers in concept
XII. Intermoleular Forces
A. Molecular Polarity
B. Effects on properties of substances
C. Like dissolves like
XIII. Equilibrium qualitative only
XIV. Nuclear Chemistry
A. Isotopes
B. Nuclear stability
C. Nuclear reactions
1. Types of nuclear reactions
2. Applications
a. Dating
b. Medical applications

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. The assigned text book.
II. Instructor packets and/or handouts clarifying course objectives. For example, a handout summarizing inorganic chemical nomenclature would be appropriate.
III. Selections from the science section of periodicals and newspapers that discuss chemical principles in the course.
IV. Selection of articles from Internet sites that may supplement topics in the course or provide animations that show key principles.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Writing of balanced chemical equations.
II. Writing of common formulas for acid, bases, and salts.
III. A short essay comparing and contrasting strong vs. weak acids.

B. Quantitative aspects of chemical formulae
1. Percent composition
2. Empirical and molecular formulae
VII. Chemical equations
A. Types of chemical reactions
1. Combustion
2. Oxidation-reduction
3. Double replacement
B. Writing balanced chemical equations
VIII. Chemical calculations
A. Mole calculations
1. Avogadro's number
2. Molar mass
B. Stoichiometry
IX. Gases
A. Kinetic molecular theory
B. Gas laws
1. Boyle's Law
2. Charles' Law
3. Ideal Gas Law
C. Kelvin temperature scale
X. Solutions
A. Solution formation
1. Solute-solvent interactions and solubility
2. Electrolytes
B. Concentration Units
1. Molarity
2. Percent
3. Parts per
C. Solution Preparation Calculations
1. Solute mass
2. Dilution
XI. Acids and bases
A. Properties
B. Acid-base theories
1. Arrhenius theory
2. Bronsted-Lowry theory
C. Conjugate acid-base pairs
D. Equilibrium and acid strength
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A. Molecular Polarity
B. Effects on properties of substances
C. Like dissolves like
XIII. Equilibrium qualitative only
XIV. Nuclear Chemistry
A. Isotopes
B. Nuclear stability
C. Nuclear reactions
1. Types of nuclear reactions
2. Applications
a. Dating
b. Medical applications

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II. Writing of common formulas for acid, bases, and salts.
III. A short essay comparing and contrasting strong vs. weak acids.
IV. Short essay on the blood's buffering system.

IV. Short essay on the blood's buffering system.
V. A short essay on the use of radioisotopes in medicine.
VI. Short essays applying chemical principles to allied health fields.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Problem solving related to pH and buffers and molarity and dilution.
II. Reading articles that link chemical principles to medicine, nutrition, or any allied health fields.
III. A short essay on the use of radioisotopes in medicine.
IV. A short essay on how the buffer system of the blood.
V. Analyze how a biological reaction is a type of oxidation-reduction.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Using dimensional analysis, solve problems related to conversions of drug dosages into different units.
II. Solving of molarity and dilution problems.
III. Compare and contrast the effects of different bond types on the nature of intermolecular forces and their effects on properties of substances.
IV. Short essay explaining the differences between a strong acid and weak acid in terms of equilibrium.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Performance on written and oral quizzes and examinations that test students' theoretical and practical knowledge of chemistry at the introductory level.
II. Performance on outside assignments including writing assignments designed to enhance students' interpretive and problem-solving abilities.
III. Class participation.

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Computer Assisted Instruction
* Distance Education (Fully online)
* Lecture

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**
1. Bishop, Mark. An Introduction to Chemistry, 2nd ed. Chiral Publishing, 2017, ISBN: 9780977810581
2. Russo, Steve and Mike Silver. Introductory Chemistry, 5th ed. Prentice Hall, 2014, ISBN: 9780321927118
3. Timberlake, Karen. Basic Chemistry, 11th ed. Pearson, 2017, ISBN: 9780134138046

**MANUALS:**

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**
1. Study guides and/or solution manuals to accompany textbooks
2. Supplementary packets prepared by instructors
3. Scientific calculator

**ORIGINATOR:** Paula Gustin

V. A short essay on the use of radioisotopes in medicine.
VI. Short essays applying chemical principles to allied health fields.

D. **Appropriate Outside Assignments:**
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III. Class participation.

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Methods of instruction may include, but are not limited to, the following:

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* Collaborative Learning
* Computer Assisted Instruction
* Distance Education (Fully online)
* Distance Education (Partially online)
* Lecture

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3. Timberlake, Karen. Basic Chemistry, 11th ed. Pearson, 2017, ISBN: 9780134138046

**MANUALS:**

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**
1. Study guides and/or solution manuals to accompany textbooks
2. Supplementary packets prepared by instructors
3. Scientific calculator

**ORIGINATOR:** Paula Gustin
**ORIGINATION DATE:** 02/25/2019
**PROPOSAL ORIGINATOR:** Paula Gustin
**CO-CONTRIBUTOR(S)**
**PROPOSAL DATE:** 01/17/2023

**CO-CONTRIBUTOR(S)**
**DATE:** 02/25/2019

Status: Active

Date Printed: 04/13/2023

Status: Launched

Date Printed: 04/13/2023

View Printable Version

# Previous Report

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

**CITY , MESA AND MIRAMAR COLLEGES**

**Course Outline of Record:**
**Curriculum Proposal Report**

**SECTION I**

I. **Subject Area:** Chemistry
II. **Course Number:** 100
III. **Course Title:** Fundamentals of Chemistry
IV. **Disciplines (Instructor Minimum Qualifications):** Chemistry
V.
VI. **Family:**
VII. **Current Short Title:** Fundamentals of Chemistry
VIII. **Course Is Active/Where?** CITY , MESA AND MIRAMAR
IX. **Originating Campus:** MESA
X. **Action Proposed:** Course Revision (May Include Activation)
XI. **Distance Education Proposed At:** City and Miramar
XII. **Proposal Originating Date:** 02/25/2019
XIII. **Proposed Start Semester:** Fall 2020
XIV. **Field Trip:** May be required
XV. **Grading Option:** Letter Grade or Pass/No Pass Option
XVI. **Current Short Description:** Intro to the language and tools of chemistry.

**SECTION II**

**COURSE ENROLLMENT INFORMATION**

I. **Requisites:**
Prerequisite: MATH 92 with a grade of "C" or better, or equivalent. Intended to establish communication or computational skills or Milestone M40
or Prerequisite: MATH 96 with a grade of "C" or better, or equivalent. Required for articulation by a UC/CSU institution or Milestone M50
Corequisite: Completion of or concurrent enrollment in: CHEM 100L with a grade of "C" or better, or equivalent.
Limitation on Enrollment:: This course is not open to students with previous credit for or concurrent enrollment in CHEM 200
Limitation on Enrollment:: This course is not open to students with previous credit for Chemistry 152
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:** Textbook latest editions

**COURSE ANALYSIS DATA**

I. **Reason for Proposed Action:** Six Year Review; Change in prerequisite to Math 96 (Course revision is for six year review.)
II. **How Does The Course Fit The College Mission?** 1. Transfer
III. **Current Transfer Options:** 1. CSU General Education 2. IGETC 3. UC Transfer Course List
IV. **Proposed College/District Purpose:** 1. District general education 2. Major Requirement - Associate Degree 3. Major Requirement - Certificate of Achievement
V. **Extraordinary Cost to the College:** None.
VI. **Library Resource Materials:** No new resources required.

**GENERAL EDUCATION ANALYSIS**

# Current Report

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

**CITY , MESA AND MIRAMAR COLLEGES**

**Course Outline of Record:**
**Curriculum Proposal Report**

**SECTION I**

I. **Subject Area:** Chemistry
II. **Course Number:** 100
III. **Course Title:** Fundamentals of Chemistry
IV. **Disciplines (Instructor Minimum Qualifications):** Chemistry
V.
VI. **Family:**
VII. **Current Short Title:** Fundamentals of Chemistry
VIII. **Course Is Active/Where?** CITY , MESA AND MIRAMAR
IX. **Originating Campus:** MESA
X. **Action Proposed:** Course Revision (May Include Activation)
XI. **Distance Education Proposed At:** City and Miramar
XII. **Proposal Originating Date:** 01/17/2023
XIII. **Proposed Start Semester:** Summer 2023
XIV. **Field Trip:** May be required
XV. **Grading Option:** Letter Grade or Pass/No Pass Option
XVI. **Current Short Description:** Intro to the language and tools of chemistry.

**SECTION II**

**COURSE ENROLLMENT INFORMATION**

I. **Requisites:**
Prerequisite: MATH 92 with a grade of "C" or better, or equivalent. Intended to establish communication or computational skills or Milestone M40
or Prerequisite: MATH 96 with a grade of "C" or better, or equivalent. Required for articulation by a UC/CSU institution or Milestone M50
Corequisite: Completion of or concurrent enrollment in: CHEM 100L with a grade of "C" or better, or equivalent.
Limitation on Enrollment:: This course is not open to students with previous credit for or concurrent enrollment in CHEM 200
Limitation on Enrollment:: This course is not open to students with previous credit for Chemistry 152
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:** Textbook latest editions

**COURSE ANALYSIS DATA**

I. **Reason for Proposed Action:** Distance Ed revision to change from Fully Online to Partially Online.
II. **How Does The Course Fit The College Mission?** 1. Transfer
III. **Current Transfer Options:** 1. CSU General Education 2. IGETC 3. UC Transfer Course List
IV. **Proposed College/District Purpose:** 1. District general education 2. Major Requirement - Associate Degree 3. Major Requirement - Certificate of Achievement
V. **Extraordinary Cost to the College:** None.
VI. **Library Resource Materials:** No new resources required.

**GENERAL EDUCATION ANALYSIS**

**CSU General Education:**
B1 Area B. Scientific Inquiry and Quantitative Reasoning - Physical Science

**District General Education:**
B2 Natural Sciences - Physical Sciences

**IGETC:**
Area 5. Physical and Biological Sciences - 5A: Physical Science

**UC Transfer Course:**
Yes

**REQUISITES ANALYSIS**

**Able to illustrate knowledge of elementary inorganic and physical chemistry.**

I. **Course: CHEM 100L Locate and use safety equipment and follow safety procedures in the chemistry lab.**
II. **Course: CHEM 100L Identify laboratory equipment, supplies and techniques commonly used in the chemistry lab.**
III. **Course: CHEM 100L Use units and significant figures correctly when making simple laboratory measurements, such as mass, volume, length, density, and temperature.**
IV. **Course: CHEM 100L Explain the differences between elements, compounds, mixtures, and solutions, and apply a variety of techniques to separate heterogeneous mixtures and solutions into their components.**
V. **Course: CHEM 100L Employ scientific reasoning in the chemistry lab by collecting and organizing data, developing a hypothesis, testing and modifying a model, and by distinguishing between observations and conclusions.**
VI. **Course: CHEM 100L Use common chemical and physical properties of matter to differentiate between a chemical and a physical change.**
VII. **Course: CHEM 100L Measure the volume of a solid from dimensions and by water displacement and calculate the density of liquids and solids.**
VIII. **Course: CHEM 100L Recognize and explain periodic trends in the properties of elements.**
IX. **Course: CHEM 100L Identify different types of chemical reactions and predict their products, define oxidation and reduction in terms of transfer of electrons and change of oxidation number, and experimentally determine whether or not a double replacement or single replacement reaction occurs spontaneously.**
X. **Course: CHEM 100L Use the mole concept in a variey of applications, including to analyze a chemical compound, to determine the molar relationships of its components and/or its empirical formula.**
XI. **Course: CHEM 100L Calculate stoichiometric relationships in chemical reactions.**
XII. **Course: CHEM 100L Describe the properties of solutions and how to prepare solutions to specified concentrations.**
XIII. **Course: CHEM 100L Use titration to determine the concentration of a solution and a volumetric pipet and/or buret to measure solution volume.**
XIV. **Course: CHEM 100L Describe the properties of acids and bases, recognize whether a given pH value represents an acidic, basic, or neutral solution, and explain how a buffer works.**
XV. **Course: CHEM 100L Use Lewis structures to determine the geometry of substances and to predict their intermolecular attractions, physical behavior, and properties.**

**Basic algebraic skills**

I. **Course: MATH 092 Perform the basic arithmetic operations with real numbers using exponents and the appropriate order of operations.**
II. **Course: MATH 092 Apply properties of equality to solve linear equations and related application problems.**
III. **Course: MATH 96 Solve systems of linear equations in three variables using a variety of methods, including matrices.**
IV. **Course: MATH 96 Create graphs of systems of linear inequalities in two variables and determine the solution set.**
V. **Course: MATH 092 Perform the basic arithmetic operations with polynomials.**
VI. **Course: MATH 96 Simplify and perform basic arithmetic operations on radical expressions in both radical and exponential form and solve radical equations.**
VII. **Course: MATH 092 Factor polynomial expressions using a variety of methods.**
VIII. **Course: MATH 092 Solve quadratic equations by factoring and use of the quadratic formula.**
IX. **Course: MATH 96 Perform basic arithmetic operations with complex numbers.**
X. **Course: MATH 092 Graph quadratic functions.**
XI. **Course: MATH 092 Identify functions from their equations and graphs and use appropriate functional**

**CSU General Education:**
B1 Area B. Scientific Inquiry and Quantitative Reasoning - Physical Science

**District General Education:**
B2 Natural Sciences - Physical Sciences

**IGETC:**
Area 5. Physical and Biological Sciences - 5A: Physical Science

**UC Transfer Course:**
Yes

**REQUISITES ANALYSIS**

**Able to illustrate knowledge of elementary inorganic and physical chemistry.**

I. **Course: CHEM 100L Use units and significant figures correctly when making simple laboratory measurements, such as mass, volume, length, density, and temperature.**
II. **Course: CHEM 100L Explain the differences between elements, compounds, mixtures, and solutions, and apply a variety of techniques to separate heterogeneous mixtures and solutions into their components.**
III. **Course: CHEM 100L Employ scientific reasoning in the chemistry lab by collecting and organizing data, developing a hypothesis, testing a model and by distinguishing between observations and conclusions.**
IV. **Course: CHEM 100L Use common chemical and physical properties of matter to differentiate between a chemical and a physical change.**
V. **Course: CHEM 100L Identify different types of chemical reactions and predict their products.**
VI. **Course: CHEM 100L Use the mole concept in a variey of applications, including to analyze a chemical compound, to determine the molar relationships of its components and/or its empirical formula.**
VII. **Course: CHEM 100L Calculate stoichiometric relationships in chemical reactions.**
VIII. **Course: CHEM 100L Describe the properties of solutions and how to prepare solutions to specified concentrations.**
IX. **Course: CHEM 100L Use titration to determine the concentration of a solution and a volumetric pipet and/or buret to measure solution volume.**
X. **Course: CHEM 100L Describe the properties of acids and bases, recognize whether a given pH value represents an acidic, basic, or neutral solution.**

**Basic algebraic skills**

I. **Course: MATH 92 Perform the basic arithmetic operations with real numbers using exponents and the appropriate order of operations.**
II. **Course: MATH 92 Apply properties of equality to solve linear equations and related application problems.**
III. **Course: MATH 96 Solve systems of linear equations in three variables using a variety of methods, including matrices.**
IV. **Course: MATH 92 Determine the equation for a linear function and graph it.**
V. **Course: MATH 92 Perform the basic arithmetic operations with polynomials.**
VI. **Course: MATH 96 Create graphs of systems of linear inequalities in two variables and determine the solution set.**
VII. **Course: MATH 92 Factor polynomial expressions using a variety of methods.**
VIII. **Course: MATH 96 Simplify and perform basic arithmetic operations on radical expressions in both radical and exponential form and solve radical equations.**
IX. **Course: MATH 92 Solve quadratic equations by factoring and use of the quadratic formula.**
X. **Course: MATH 96 Create graphs of nonlinear functions using various methods, including transformations.**
XI. **Course: MATH 92 Graph quadratic functions.**
XII. **Course: MATH 96 Perform basic arithmetic operations with complex numbers.**
XIII. **Course: MATH 92 Identify functions from their equations and graphs and use appropriate functional notation.**
XIV. **Course: MATH 96 Solve quadratic equations including those having complex number solutions.**
XV. **Course: MATH 92 Perform the basic arithmetic operations with rational expressions.**
XVI. **Course: MATH 92 Solve systems of linear equations in two variables graphically and algebraically.**
XVII. **Course: MATH 96 Perform basic algebra with functions, determine whether a function is one-to-one and find the inverse of a one-to-one function.**
XVIII. **Course: MATH 92 Solve exponential and logarithmic equations and applications.**
XIX. **Course: MATH 96 Use the properties of and relationship between exponential and logarithmic functions to solve a variety of application problems.**

notation.

XII. Course: MATH 092 Perform the basic arithmetic operations with rational expressions.

XIII. Course: MATH 092 Solve systems of linear equations in two variables graphically and algebraically.

XIV. Course: MATH 96 Perform basic algebra with functions, determine whether a function is one-to-one and find the inverse of a one-to-one function.

XV. Course: MATH 092 Solve exponential and logarithmic equations and applications.

XVI. Course: MATH 092 Apply the correct notation when identifying, simplifying and using arithmetic and geometric series and sequences.

**SECTION III**

**COURSE DISTANCE EDUCATION INFORMATION**

I. **MESA**

II. **Distance Education Methods of Instruction:** 1. On-line course

III. **Other Distance Education Methods:** Students will be required to attend a 90-minute on campus orientation meeting where the syllabus for the course will be discussed. The requirements, scope and learning outcomes for the course will be thoroughly discussed. In addition, there will be two mandatory on campus meeting during the semester.

IV. **Type and frequency of contact may include, but is not limited to:**
1. Chat Rooms
Once a week
2. E-mail
As needed
3. Orientation Sessions
Once per semester

V. **List of Techniques:** 1) Graded online homework/quiz assessments for each chapter with immediate feedback for correct and incorrect responses. 2) Online examinations to insure that the learning objective of CHEM 100 are met. 3) Frequent instructor-student interaction through the class discussion board and chat rooms for guidance of the student in the learning process. These interactions constitute the class participation portion of the final grade. 4) Weekly office hours in WebCT's chat room. 5) Email for individual student-student and instructor-student communication. 6) The corequisite of CHEM 100L will be strictly enforced.

VI. **How to Evaluate Students for Achieved Outcomes:** Same as 1-5 above. Homework, quiz, and examination content will cover the learning outcomes as specified in the student learning outcomes for CHEM 100. Student performance on these assignments will be evaluated and scored accordingly.

VII. **Additional Resources/Materials/Information:** Instructor prepared lecture notes are posted online for each chapter. The notes both complement and supplement the textbook in an accessible and easy to read format. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

VIII. **Audio Visual Library Materials:** NO

IX. **CITY**

X. **Distance Education Methods of Instruction:** 1. Fully Online

XI. **Other Distance Education Methods:**

XII. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
weekly
2. Chat Rooms
as assigned
3. Collaborative Web Documents
as assigned
4. Conferencing
as assigned
5. Discussion Board
at least three times during the term

XX. Course: MATH 92 Apply the correct notation when identifying, simplifying and using arithmetic and geometric series and sequences.

XXI. Course: MATH 96 Determine the type and pattern of simple sequences, including arithmetic and geometric sequences, and use appropriate notation in expressing the closed form of the sequence.

XXII. Course: MATH 96 Apply arithmetic and geometric sequences and their sums in solving related problems.

**SECTION III**

**COURSE DISTANCE EDUCATION INFORMATION**

I. **MESA**

II. **Distance Education Methods of Instruction:** 1. Partially online only

III. **Other Distance Education Methods:**

IV. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
As needed
**Participant/s**: Faculty to Student/s
2. Discussion Board
Weekly
**Participant/s**: Faculty to Student/s , Among Students
3. Email/Message System
As needed
**Participant/s**: Faculty to Student/s , Among Students
4. Synchronous or Asynchronous Video
Frequent
**Participant/s**: Faculty to Student/s , Among Students

V. **List of Techniques:** Online instruction includes regular student-to-student and instructor-to-student communication. 1) Graded online homework/quiz assessments for each chapter with immediate feedback for correct and incorrect responses. 2) Frequent instructor-student interaction through the class discussion board and chat rooms for guidance of the student in the learning process. These interactions constitute the class participation portion of the final grade. 3) Weekly office hours. 4) Email for individual student-student and instructor-student communication. 5) The corequisite of CHEM 100L will be strictly enforced.

VI. **How to Evaluate Students for Achieved Outcomes:** Examinations will be predominately in person with some online assessments and assignments. Student performance on these assignments will be evaluated and scored accordingly.

VII. **Additional Resources/Materials/Information:** SDCCD and DSPS personnel will provide all needed accommodations. DSPS will provide a student in an online classroom with the same level of support as an on-campus student. Instructor prepared lecture notes are posted online for each chapter. The notes both complement and supplement the textbook in an accessible and easy to read format. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

VIII. **Audio Visual Library Materials:** NO

IX. **CITY**

X. **Distance Education Methods of Instruction:** 1. Fully Online

XI. **Other Distance Education Methods:**

XII. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
weekly
2. Chat Rooms
as assigned
3. Collaborative Web Documents
as assigned
4. Conferencing
as assigned
5. Discussion Board
at least three times during the term
6. Email/Message System
as needed
7. Field Trips

6. Email/Message System
as needed
7. Field Trips
as assigned
8. Group Meetings
as assigned
9. Individual Meetings
as needed
10. Individualized Assignment Feedback
as assigned
11. Synchronous or Asynchronous Video
as assigned
12. Telephone Contact
As needed

XIII. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

XIV. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

XV. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XVI. **Audio Visual Library Materials:** NO

XVII. **MIRAMAR**

XVIII. **Distance Education Methods of Instruction:** 1. Fully Online

XIX. **Other Distance Education Methods:**

XX. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
weekly
2. Chat Rooms
as assigned
3. Collaborative Web Documents
as assigned
4. Conferencing
as assigned
5. Discussion Board
at least three times during the term with the instructor and with other students
6. Email/Message System
as needed
7. Group Meetings
as assigned
8. Individual Meetings
as needed
9. Individualized Assignment Feedback
as assigned
10. Synchronous or Asynchronous Video
as assigned
11. Telephone Contact
as needed

XXI. **List of Techniques:** Students interact with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via email, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

XXII. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

XXIII. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provides a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act).

**SECTION IV**

as assigned
8. Group Meetings
as assigned
9. Individual Meetings
as needed
10. Individualized Assignment Feedback
as assigned
11. Synchronous or Asynchronous Video
as assigned
12. Telephone Contact
As needed

XIII. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

XIV. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

XV. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XVI. **Audio Visual Library Materials:** NO

XVII. **MIRAMAR**

XVIII. **Distance Education Methods of Instruction:** 1. Fully Online

XIX. **Other Distance Education Methods:**

XX. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
weekly
2. Chat Rooms
as assigned
3. Collaborative Web Documents
as assigned
4. Conferencing
as assigned
5. Discussion Board
at least three times during the term with the instructor and with other students
6. Email/Message System
as needed
7. Group Meetings
as assigned
8. Individual Meetings
as needed
9. Individualized Assignment Feedback
as assigned
10. Synchronous or Asynchronous Video
as assigned
11. Telephone Contact
as needed

XXI. **List of Techniques:** Students interact with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via email, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

XXII. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

XXIII. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provides a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XXIV. **Audio Visual Library Materials:** NO

Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

**COURSE STUDENT LEARNING OUTCOME(S)**

**XXIV. Audio Visual Library Materials:** NO

**CITY**

- Utilize critical thinking skills in a variety of scientific applications. Course objective/outcome: Use English, metric and SI units to express measurements of length, volume, mass, density, temperature and energy, and perform unit conversions using dimensional analysis.

**MESA**

- Use current theories to describe atoms and compounds.
- Describe and/or write structure. Correlate the relationships between structure and properties.
- Understand and use nomenclature systems.
- Write and explain chemical pathways.
- Use and/or understand accepted standards in measuring, and analyzing data with the use of mathematical models and calculations.

**MIRAMAR**

- Students should recognize the type of intermolecular forces a chemical possesses

**SECTION V**

**COURSE DATA ADMINISTRATION ELEMENTS**

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1905.00 Chemistry, General
**SAM Code:** E - Non Occupational
**Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).**
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):**
**Course Support Course Status (CB26):**
**Major Restriction Code:** NONE

II. **Lect Units:** 3.00
**Total Units:** 3
**Lecture Hours Min:** 48.00 **Max:** 54.00
**Lab Hours Min:** 0.00 **Max:** 0.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 48.00 **Max:**54.00
**Outside-of-Class Hours Min:** 96.00 **Max:**108.00
**Total Student Learning Hours Min:** 144.00 **Max:** 162.00
**FTEF Lecture Min:** 0.2000 **Max:**
**FTEF Lab Min:** 0.0000 **Max:**
**FTEF Total Min:** 0.2000 **Max:**

III. **Last Time Pre/Co Requisite Update:** 04/05/2019

IV. **Last Outline Revision Date:** 05/09/2019

V. **CIC Approval:** 05/09/2019

VI. **BOT Approval:**

VII. **State Approval:**

VIII. **Revised State Approval:**

IX. **Course Approval Effective Date:** Fall 2020

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

**SECTION IV**

**COURSE STUDENT LEARNING OUTCOME(S)**

**CITY**

- Utilize critical thinking skills in a variety of scientific applications. Course objective/outcome: Use English, metric and SI units to express measurements of length, volume, mass, density, temperature and energy, and perform unit conversions using dimensional analysis.

**MESA**

- Use current theories to describe atoms and compounds.
- Describe and/or write structure. Correlate the relationships between structure and properties.
- Understand and use nomenclature systems.
- Write and explain chemical pathways.
- Use and/or understand accepted standards in measuring, and analyzing data with the use of mathematical models and calculations.

**MIRAMAR**

- Students should recognize the type of intermolecular forces a chemical possesses

**SECTION V**

**COURSE DATA ADMINISTRATION ELEMENTS**

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1905.00 Chemistry, General
**SAM Code:** E - Non Occupational
**Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).**
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):** Y = Not applicable
**Course Support Course Status (CB26):** N = Course is not a support course
**Major Restriction Code:** NONE

II. **Lect Units:** 3.00
**Total Units:** 3
**Lecture Hours Min:** 48.00 **Max:** 54.00
**Lab Hours Min:** 0.00 **Max:** 0.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 48.00 **Max:**54.00
**Outside-of-Class Hours Min:** 96.00 **Max:**108.00
**Total Student Learning Hours Min:** 144.00 **Max:** 162.00
**FTEF Lecture Min:** 0.2000 **Max:**
**FTEF Lab Min:** 0.0000 **Max:**
**FTEF Total Min:** 0.2000 **Max:**

III. **Last Time Pre/Co Requisite Update:** 01/17/2023

IV. **Last Outline Revision Date:** 05/09/2019

V. **CIC Approval:**

VI. **BOT Approval:**

VII. **State Approval:**

VIII. **Revised State Approval:**

IX. **Course Approval Effective Date:**

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

CIC Approval:
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM:

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, MESA, AND MIRAMAR COLLEGES
# ASSOCIATE DEGREE COURSE OUTLINE

## SECTION I

**SUBJECT AREA AND COURSE NUMBER:** Chemistry 200

**COURSE TITLE:**
General Chemistry I - Lecture

**Units:**
3
Letter Grade or Pass/No Pass Option

**CATALOG COURSE DESCRIPTION:**

This is the first course in a two-course sequence in general chemistry. Emphasis is placed on the principles and laws of inorganic chemistry, including quantitative, mathematical problem solving. Topics include chemical equations, stoichiometry, atomic theory and its relationship to periodicity of the elements, bonding theories, molecular geometry, calorimetry, thermochemistry, solution chemistry, liquids, solids, and the gas laws. This course is intended for science majors and all students interested in chemistry.

**REQUISITES:**

**Prerequisite:**
CHEM 152 with a grade of "C" or better, or equivalent
&
CHEM 152L with a grade of "C" or better, or equivalent
&
MATH 96 with a grade of "C" or better, or equivalent or Milestone M50

**Corequisite: Completion of or concurrent enrollment in:**

CHEM 200L with a grade of "C" or better, or equivalent

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU CSU General Education IGETC UC Transfer Course List

**CID:**
CHEM 110; CHEM 120S (CHEM 200, 200L, 201, 201L)

**TOTAL LECTURE HOURS:**
48 - 54

**TOTAL LAB HOURS:**

**TOTAL CONTACT HOURS:**
48 - 54

**OUTSIDE-OF-CLASS HOURS:**
96 - 108

**TOTAL STUDENT LEARNING HOURS:**
144 - 162

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

1. Perform advanced unit conversion problems using dimensional analysis.
2. Write and balance chemical equations, including word and ionic equations, and perform stoichiometric calculations for amounts of reactants and products, including calculations of theoretical and percent yields.
3. Write chemical equations for the ionization of acids, bases, and the dissociation of aqueous salts.
4. Discriminate between precipitation, acid-base, reduction-oxidation, and single replacement types of reactions; predict whether an aqueous phase reaction will occur, and if a reaction occurs, write the product(s) and a balanced equation.
5. Solve gas law problems with an emphasis on the Ideal Gas Law, Dalton's Law of Partial Pressures, and the Kinetic Molecular Theory of Gases.
6. Solve problems involving electromagnetic radiation, write sets of quantum numbers, write electron configurations, and draw orbital diagrams for the elements.
7. Explain periodic trends in atomic radii, ionization energy, electron affinity, and their relationship to reactivity within a chemical family.
8. Compare and contrast the principal theories of ionic and covalent bonding.
9. Compare and contrast the properties of the liquid and solid states, including phase changes, with emphasis on defining, analyzing, and integrating relationships between intermolecular forces, vapor pressure, and physical properties.
10. Solve problems involving different measures of concentration, explain and analyze the factors that affect the formation of a solution, and solve problems related to colligative properties.
11. Explain key terms and solve quantitative calculations pertaining to enthalpy and thermochemistry.

## SECTION II

### 1. COURSE OUTLINE AND SCOPE:

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

I. Dimensional Analysis
  A. Square and cubic conversions
  B. Conversion of derived units such as joules and pascals
II. Chemical Equations and Stoichiometric Calculations
  A. Writing equations from word equations
    1. Molecular equations
    2. If applicable, complete ionic equations
    3. If applicable, net ionic equations
  B. Solving problems involving a limiting reagent
  C. Calculating a theoretical and percentage yield
  D. Solution stoichiometry, including titration
III. Ionization of Acids, Bases, and Salts in Aqueous Solution
  A. Discriminating between soluble and insoluble salts
  B. The dissolution process
  C. Equations describing the ionization of weak and strong acids and bases
IV. Predicting and Classifying Reactions
  A. Precipitation reactions, including the use of solubility tables or rules
  B. Acid-base reactions, including gas-forming reactions
  C. Single-replacement reactions, including the use of an activity series
V. Gas Law Calculations and Concepts
  A. Ideal Gas Law
    1. Molar mass and density determination

2. Molar volume and standard temperature and pressure (STP)
3. Gas law stoichiometry
4. Changing of gas pressure, volume, and temperature parameters

B. Dalton's Law of Partial Pressures

C. Kinetic Molecular Theory

1. Root-mean-square velocity
2. Effusion and diffusion

VI. Atomic Theory

A. Calculations involving electromagnetic radiation

B. Calculations involving the Bohr model of the atom

C. Quantum mechanics

1. Orbitals
2. Quantum numbers
3. Electron configurations
4. Orbital diagrams

VII. Periodic Trends

A. Atomic radii

B. Ionization energy

C. Electron affinity

D. Relationships to chemical reactivity within a family

VIII. Bonding Theories

A. Ionic bonding

1. Desire for noble gas electron configuration
2. Ionic radii
3. Lattice energy

B. Covalent bonding

1. Lewis structures
    a. Expanded octets
    b. Formal charges
    c. Resonance
2. Molecular shape: valence shell electron pair repulsion (VSEPR)
3. Hybridization
4. Polarity
    a. Electronegativity
    b. Dipole moments
    c. Relationship to Lewis structures, molecular shapes, and hydridization

IX. Liquids and Solids

A. Intermolecular forces

1. Ion-dipole
2. Dipole-dipole including hydrogen bonding
3. Instantaneous-induced dipole

B. Vapor pressure

1. Claussius-Clapeyron equation
2. Relationship to boiling point
3. Relationship to intermolecular forces

C. Physical properties in relationship to intermolecular forces

1. Vapor pressure
2. Boiling point
3. Melting point
4. Surface tension
5. Viscosity

D. Phase changes and phase diagrams

1. Critical temperature and pressure
2. Heat of vaporization and heat of fusion

X. Solutions

A. Concentration

1. Molarity
2. Percentage by mass
3. Mole fraction
4. Molality

B. Factors affecting the formation of a solution
    1. Temperature
    2. Pressure
    3. Bonding/intermolecular forces
C. Colligative properties
    1. Vapor pressure lowering
    2. Boiling point elevation
    3. Freezing point depression
    4. Determination of molar mass

XI. Thermochemistry
A. Potential and kinetic energy
B. Work and heat
C. Calorimetry
D. First Law of Thermodynamics
E. Enthalpy
F. Endothermic and exothermic
G. System and surroundings
H. Thermochemical calculations

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. Assigned textbook related to chemistry.
II. Selections from scientific journals and periodicals.
III. Selections from Internet sites related to science and chemistry.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Brief response to an article on a theoretical or practical application of chemistry.
II. General chemistry problems.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Problem solving exercises assigned from the textbook, study guide, and/or instructor packets related to chemistry.
II. Background reading related to a variety of topics in general chemistry.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Solve multi-variable problems using empirical data.
II. Predict the outcome of a chemical reaction based upon solubility tables, activity series, and properties of acids and bases.
III. Compare relative physical and chemical properties of elements based upon their position within a chemical family.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Quizzes and exams.
II. Homework assignments.
III. Written assignments.
IV. Class participation.

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Computer Assisted Instruction
* Distance Education (Fully online)
* Distance Education (Partially online)
* Lecture
* Other (Specify)
* Demonstration

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**
1. Brown, Theodore E.; Lemay, H. Eugene; Bursten, Bruce E.; Murphy, Catherine; Woodward, Patrick; Stoltzfus, Matthew E. Chemistry: The Central Science, 14th ed. Pearson, 2018, ISBN: 9780134414232
2. OpenStax. Chemistry: Atoms First, 2nd ed. OpenStax, 2019, ISBN: 978194717264
3. Tro, Nivaldo J. Chemistry: Structure and Properties, 2nd ed. Pearson, 2018, ISBN: 9780134293936
4. Zumdahl, Steven S.; Zumdahl, Susan A.; DeCoste, Donald J. Chemistry, 10th ed. Cengage, 2018, ISBN: 9781305957404

**MANUALS:**

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**
1. Scientific calculator

**ORIGINATOR:** Namphol Sinkaset
**ORIGINATION DATE:** 05/06/2022
**PROPOSAL ORIGINATOR:** Paula Gustin
**CO-CONTRIBUTOR(S)**
**PROPOSAL DATE:** 01/17/2023

CIC Approval:
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM:

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, MESA, AND MIRAMAR COLLEGES
# ASSOCIATE DEGREE COURSE OUTLINE

## SECTION I

**SUBJECT AREA AND COURSE NUMBER:** Child Development 160

**COURSE TITLE:** Observation and Assessment of Children

**Units:** 2
Grade Only

**CATALOG COURSE DESCRIPTION:**

This course focuses on behavioral patterns and growth processes of young children through the use of a variety of assessment and observation strategies to document child development and behavior. Child observations are conducted and analyzed through supervised participation in the campus early education center. Topics include the use of observation and assessment of children in planning, implementing, and evaluating early childhood curriculum and environments. This course partially fulfills the specialization requirements for the State of California Master Teacher Permit.

**REQUISITES:**

**Limitation on Enrollment:**
Health and Safety. TB clearance within the last year is required.

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU

**CID:**

**TOTAL LECTURE HOURS:**
16 - 18

**TOTAL LAB HOURS:**
48 - 54

**TOTAL CONTACT HOURS:**
64 - 72

**OUTSIDE-OF-CLASS HOURS:**
32 - 36

**TOTAL STUDENT LEARNING HOURS:**
96 - 108

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

1. Describe and interpret the operating policies and procedures of the campus lab.
2. Apply the philosophy of the campus lab when carrying assigned tasks.
3. Identify the purpose, value, and use of formal and informal observation and assessment strategies.
4. Display appropriate guidance techniques and practices in working with young children.
5. Examine the role of observation in interpreting children's behavior.
6. Complete systemic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children's development and behavior.

## SECTION II

### 1. COURSE OUTLINE AND SCOPE:

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

I. Organization and procedures of the campus lab
  A. Goals and philosophy
  B. Operating policies and procedures
  C. Classroom organization, daily routines, and developmental program
  D. Role of the student aide
  E. Effective ways to work with young children
II. Growth and development patterns of young children
  A. Physical
  B. Cognitive
  C. Language
  D. Social
  E. Emotional
III. Guidance techniques and procedures in working with young children
  A. Guidance principles, values, and positive behavior
  B. All behavior has meaning
  C. Parental/teacher expectations
  D. Cultural differences in child rearing
  E. Age-appropriate guidance
  F. Effective questioning strategies
IV. Observation and assessment of young children's behavior
  A. Purpose and objective of child observations
  B. Observer's role
  C. Child observation techniques and tools
  D. Using Desired Results Developmental Profiles

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. Assigned text related to child development and/or observation.
II. Child development journals, such as Young Children.
III. Collections of articles, such as Annual Editions of Early Childhood Education
IV. San Diego Community College Participant's Handbook.
V. Instructor handouts.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Reflections on observations and implementation of child guidance techniques during lab time.
II. Use observation information tied to Desired Results Developmental Profiles (DRDP) to explore possibilities for curriculum planning.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Completing reading and writing assignments.
II. Observing children.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Interpreting and applying lab student policies and procedures.
II. Observing behavior and applying appropriate guidance techniques with young children.
III. Use observation information tied to Desired Results Developmental Profiles (DRDP) to explore possibilities for curriculum planning.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Quizzes and exams
II. Writing assignments
III. Child observations
IV. Evaluation of participation in the campus child development lab and application of the policies and procedures of the lab
V. Class participation

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Computer Assisted Instruction
* Distance Education (Fully online)
* Distance Education (Fully online)
* Lecture-Lab Combination
* Shadowing
* Other (Specify)
* Class participation
* Coaching for active participation with children in lab setting

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**
1. Deb Curtis & Margie Carter. Art of Awareness: How Observation Can Transform Your Teaching, 2nd ed. Redleaf Press, 2013, ISBN: 9781605540863

**MANUALS:**
1. California Department of Education. Desired Results Developmental Profile, California Department of Education, 06-01-2015
2. San Diego Community College District. The San Diego Community College District Child Development Center Family Handbook, San Diego Community College District, 04-01-2020

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**

**ORIGINATOR:** Berta Harris
**ORIGINATION DATE:** 07/10/2017
**PROPOSAL ORIGINATOR:** Rebecca Collins
**CO-CONTRIBUTOR(S)**
**PROPOSAL DATE:** 02/15/2023

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**
**COURSE PROPOSAL IMPACT REPORT**

**COURSE TO BE PROPOSED:** CHEM 200
General Chemistry I - Lecture

**ACTIVE/APPROVED COURSES IMPACTED:**

CHEM 200 General Chemistry I - Lecture (29475)

Prerequisite
CHEM 201 (Active)
CHEM 201 (Approved)
CHEM 201L (Active)
CHEM 201L (Approved)
Corequisite: Completion of or concurrent enrollment in
CHEM 200L (Active)
CHEM 200L (Approved)
ENGE 210 (Active)
Advisory: Concurrent enrollment in
BIOL 210A (Active)

**DISTRICT GENERAL EDUCATION:**

B2 Natural Sciences - Physical Sciences

**ACTIVE/APPROVED/PROPOSED PROGRAMS IMPACTED:**

( **City** )
Astronomy *Active*;
**Associate of Science Degree**

Recommended Electives:

( **Mesa** )
Biochemistry *Pending*;
**Associate of Science Degree**

Major Courses

( **Miramar** )
Biology *Active*;
**Associate in Science for Transfer Degree**

Major Courses

( **City** )
Biology *Active*;
**Associate in Science for Transfer Degree**

Major Courses

( **Mesa** )
Biology *Active*;
**Associate in Science for Transfer Degree**

Major Courses

( **Mesa** )
Biology *Pending*;
**Associate in Science for Transfer Degree**

Major Courses

( **City** )
Biology *Pending*;
**Associate in Science for Transfer Degree**

Major Courses

( **Miramar** )
Biology Studies *Active*;
**Associate of Science Degree**

Select 4 to 9 units from the following:

( **Miramar** )
Biology Studies *Launched*;
**Associate of Science Degree**

Select 4 to 9 units from the following:

( **Miramar** )
Chemistry *Approved*;
**Associate in Science for Transfer Degree**

Major Courses

( **Mesa** )
Chemistry *Approved*;
**Associate in Science for Transfer Degree**

Major Courses

( **City** )
Chemistry *Approved*;
**Associate in Science for Transfer Degree**

Major Courses

( **Mesa** )
Chemistry *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **City** )
Chemistry *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **Mesa** )
Chemistry *Active*;
**Certificate of Achievement**

Courses Required for the Major:

( **Mesa** )
Chemistry *Launched*;
**Certificate of Achievement**

Courses Required for the Major:

( **City** )
Chemistry Laboratory Technician *Pending*;
**Certificate of Achievement**

Biochemistry/Chemistry/Biopharmaceutical Laboratory Technician:

( **Miramar** )
Chemistry Studies *Active*;
**Associate of Science Degree**

Major Courses

( **Miramar** )
Earth Science Studies *Active*;
**Associate of Science Degree**

Select at least eight (8) units from the following physical science courses:

( **Miramar** )
Earth Science Studies *Launched*;
**Associate of Science Degree**

Select at least eight (8) units from the following physical science courses:

( **City** )
Engineering *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **City** )
Engineering *Approved*;
**Associate of Science Degree**

Courses Required for the Major:

( **Mesa** )
Engineering *Active*;
**Associate of Science Degree**

Select 24 units from the following:

( **Mesa** )

Engineering *Launched*;
**Associate of Science Degree**

Select 24 units from the following:

( **Mesa** )
Engineering *Active*;
**Certificate of Achievement**

Select 24 units from the following:

( **Mesa** )
Engineering *Launched*;
**Certificate of Achievement**

Select 24 units from the following:

( **Miramar** )
Exercise and Nutritional Sciences *Active*;
**Associate of Science Degree**

Select at least one course and the remainder of units needed to meet the minimum of 18 from the following:

( **Miramar** )
Exercise and Nutritional Sciences *Launched*;
**Associate of Science Degree**

Select at least one course and the remainder of units needed to meet the minimum of 18 from the following:

( **City** )
General Biology Track *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **City** )
General Biology Track *Launched*;
**Associate of Science Degree**

Courses Required for the Major:

( **Mesa** )
Geography *Active*;
**Associate in Arts for Transfer Degree**

Category B: Select 2 or more courses from the following, not selected in Category A (6 units minimum):

( **City** )
Geography *Active*;
**Associate in Arts for Transfer Degree**

Select two of the following courses if not selected above(minimum 6 semester units)

( **Mesa** )
Geography *Active*;
**Associate of Arts Degree**

Select one course from the following:

( **City** )
Geography *Active*;
**Associate of Science Degree**

Select eight units from:

( **Mesa** )
Geology *Active*;
**Associate in Science for Transfer Degree**

Major Courses

( **City** )
Geology *Active*;
**Associate in Science for Transfer Degree**

Major Courses

( **Miramar** )
Geology *Active*;
**Associate in Science for Transfer Degree**

Major Courses

( **City** )
Geology *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **Mesa** )
Kinesiology *Active*;
**Associate in Arts for Transfer Degree**

Category A: Select two of the following courses (minimum 6 units):

( **Mesa** )
Kinesiology *Approved*;
**Associate in Arts for Transfer Degree**

Category A: Select two of the following courses (minimum 6 units):

( **Miramar** )
Kinesiology *Active*;
**Associate in Arts for Transfer Degree**

Select two of the following courses (minimum 6 units)

( **City** )
Kinesiology *Active*;

**Associate in Arts for Transfer Degree**

Select two of the following courses (minimum 8 units)

( **Mesa** )
Liberal Arts & Sciences: Science Studies-Kinesiology & Nutrition *Active*;
**Associate of Arts Degree**

Select a minimum of 6 units:

( **City** )
Liberal Arts and Sciences in Scientific Studies Physical and Earth Sciences Specialization *Approved*;
**Associate of Arts Degree**

Major Courses

( **Mesa** )
Liberal Arts and Sciences: Mathematics and Pre-Engineering-Computer Science *Active*;
**Associate of Arts Degree**

Select a minimum of 5 units:

( **Mesa** )
Liberal Arts and Sciences: Mathematics and Pre-Engineering-Engineering *Active*;
**Associate of Arts Degree**

Major Courses

( **Mesa** )
Liberal Arts and Sciences: Science Studies-Biological Science *Active*;
**Associate of Arts Degree**

Select a minimum of 10 units:

( **Mesa** )
Liberal Arts and Sciences: Science Studies-Chemistry *Active*;
**Associate of Arts Degree**

Major Courses

( **Mesa** )
Liberal Arts and Sciences: Science Studies-Physics *Active*;
**Associate of Arts Degree**

Select a minimum of 3 units:

( **Mesa** )
Liberal Arts and Sciences: Science Studies-Psychology *Active*;
**Associate of Arts Degree**

Select a minimum of 5 units (total of 18 units):

( **Mesa** )
Liberal Arts and Sciences: Science Studies-Psychology *Launched*;
**Associate of Arts Degree**

Select a minimum of 5 units (total of 18 units):

( **City** )
Liberal Arts and Sciences: Scientific Studies Mathematics and Pre-Engineering *Active*;
**Associate of Arts Degree**

Major Courses

( **City** )
Liberal Arts and Sciences: Scientific Studies Mathematics and Pre-Engineering *Launched*;
**Associate of Arts Degree**

Major Courses

( **City** )
Liberal Arts and Sciences: Scientific Studies Physical and Earth Sciences Specialization *Approved*;
**Associate of Arts Degree**

Major Courses

( **City** )
Liberal Arts and Sciences: Scientific Studies Physical and Earth Sciences Specialization *Pending*;
**Associate of Arts Degree**

Major Courses

( **City** )
Liberal Arts and Sciences: Scientific Studies in Biological Science *Active*;
**Associate of Arts Degree**

Major Courses

( **City** )
Liberal Arts and Sciences: Scientific Studies in Biological Science *Launched*;
**Associate of Arts Degree**

Major Courses

( **Miramar** )
Mathematics Studies *Active*;
**Associate of Arts Degree**

Select at least 5 units from the following:

( **Miramar** )
Nutrition and Dietetics *Active*;
**Associate in Science for Transfer Degree**

Major Courses

( **Mesa** )
Nutrition and Dietetics *Active*;
**Associate in Science for Transfer Degree**

Major Courses

( **Miramar** )
Nutrition and Dietetics *Approved*;
**Associate in Science for Transfer Degree**

Major Courses

( **Mesa** )
Nutrition and Dietetics *Pending*;
**Associate in Science for Transfer Degree**

Major Courses

( **City** )
Nutrition and Dietetics *Pending*;
**Associate in Science for Transfer Degree**

Major Courses

( **Mesa** )
Physical Sciences *Active*;
**Associate of Science Degree**

At least 8 units from the following:

( **Mesa** )
Physical Sciences *Launched*;
**Associate of Science Degree**

At least 8 units from the following:

( **Mesa** )
Physical Sciences *Active*;
**Certificate of Achievement**

At least 8 units from the following:

( **Mesa** )
Physical Sciences *Launched*;
**Certificate of Achievement**

At least 8 units from the following:

( **Mesa** )
Physics *Active*;
**Associate in Science for Transfer Degree**

Recommended Electives

( **Mesa** )
Physics *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **City** )
Physics *Active*;

**Associate of Science Degree**

Courses Required for the Major:

( **Mesa** )
Physics *Launched*;
**Associate of Science Degree**

Select 6 to 8 units from the following:

( **Miramar** )
Pre-Engineering Studies *Active*;
**Associate of Science Degree**

Select at least four (4) units from the following:

( **Mesa** )
Psychology *Active*;
**Associate in Arts for Transfer Degree**

Select one course from the following (not selected above):

( **Mesa** )
Psychology *Active*;
**Associate in Arts for Transfer Degree**

Select one of the following courses (not selected above):

( **Mesa** )
Transfer Track *Active*;
**Associate of Science Degree**

Courses Required for the Major:

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**
**COURSE PROPOSAL IMPACT REPORT**

**COURSE TO BE PROPOSED:** CHIL 160
Observation and Assessment of Children

**ACTIVE/APPROVED COURSES IMPACTED:**

CHIL 160 Observation and Assessment of Children (29538)

Prerequisite
CHIL 151 (Active)
LCOM 275E (Active)
Advisory
CHIL 275 (Active)
CHIL 291 (Active)

**ACTIVE/APPROVED/PROPOSED PROGRAMS IMPACTED:**

( **Mesa** )
Assistant Teacher* *Active*;
**Certificate of Performance**

One or more of the following courses is recommended to gain experience and credits required for higher level permits:

( **Mesa** )
Assistant Teacher* *Active*;
**Certificate of Performance**

Select one course from:

( **Mesa** )
Associate Teacher *Active*;
**Certificate of Achievement**

Select three or more units from:

( **Mesa** )
Child Development *Active*;
**Associate of Science Degree**

Courses Required for the Major:

( **Miramar** )
Child Development *Active*;
**Associate of Science Degree**

Recommended Electives (select from courses not already taken):

( **Mesa** )
Child Development *Active*;
**Associate of Science Degree**

Recommended Electives (select from courses not already taken):

( **Miramar** )
Child Development *Active*;
**Associate of Science Degree**

Select one of the following three options:

( **Miramar** )
Child Development Associate Teacher *Active*;
**Certificate of Achievement**

Select three or more units from:

( **Miramar** )
Child Development Master Teacher *Approved*;
**Certificate of Achievement**

Guiding Young Children

( **Miramar** )
Child Development Master Teacher *Approved*;
**Certificate of Achievement**

OR - Family Life

( **Miramar** )
Child Development Site Supervisor *Approved*;
**Associate of Science Degree**

Recommended Electives (select from courses not already taken):

( **Miramar** )
Child Development Site Supervisor *Approved*;
**Associate of Science Degree**

Select one of the following three options:

( **Miramar** )
Child Development Teacher *Active*;
**Certificate of Achievement**

Select one of the following three options:

( **City** )
Child Development: Associate Teacher *Active*;
**Certificate of Achievement**

Complete a minimum of two (2) units from the following:

( **City** )
Child Development: Master Teacher *Active*;
**Certificate of Achievement**

Family Life

( **City** )

Child Development: Master Teacher *Active*;
**Certificate of Achievement**

Universal Design for Education

( **City** )
Child Development: Teacher *Active*;
**Certificate of Achievement**

Select one (1) course from the following:

( **City** )
Early Care and Education *Active*;
**Associate of Science Degree**

Courses Required for the Major

( **Miramar** )
Family and Child Relations* *Active*;
**Certificate of Performance**

Courses Required for the Major:

( **Miramar** )
Family and Child Relations* *Pending*;
**Certificate of Performance**

Courses Required for the Major:

( **Mesa** )
Home Day Care* *Active*;
**Certificate of Performance**

Recommended Electives:

( **Miramar** )
Human Development Studies *Active*;
**Associate of Arts Degree**

Select at least 12 units from the following:

( **City** )
Liberal Arts and Sciences: Social and Behavioral Sciences *Active*;
**Associate of Arts Degree**

Major Courses

( **Mesa** )
Liberal Arts and Sciences: Social and Behavioral Sciences-Child Development *Active*;
**Associate of Arts Degree**

Select a minimum of 6 units:

( **Miramar** )
Master Teacher *Active*;
**Certificate of Achievement**

Guiding Young Children

( **Mesa** )
Master Teacher *Active*;
**Certificate of Achievement**

Guiding Young Children/Family Life

( **Miramar** )
Master Teacher *Active*;
**Certificate of Achievement**

OR - Family Life

( **Miramar** )
Site Supervisor *Active*;
**Associate of Science Degree**

Recommended Electives (select from courses not already taken):

( **Miramar** )
Site Supervisor *Active*;
**Associate of Science Degree**

Select one of the following three options:

( **Mesa** )
Teacher *Active*;
**Certificate of Achievement**

Select one of the following three options:

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

CITY , MESA AND MIRAMAR COLLEGES

**Course Outline of Record:**
**Curriculum Proposal Report**

## SECTION I

I. **Subject Area:** Chemistry
II. **Course Number:** 200
III. **Course Title:** General Chemistry I - Lecture
IV. **Disciplines (Instructor Minimum Qualifications):** Chemistry
V.
VI. **Family:**
VII. **Current Short Title:** General Chemistry I - Lecture
VIII. **Course Is Active/Where?**
IX. **Originating Campus:** MESA
X. **Action Proposed:** Course Revision (May Include Activation)
XI. **Distance Education Proposed At:** Mesa , Miramar and City
XII. **Proposal Originating Date:** 01/17/2023
XIII. **Proposed Start Semester:** Summer 2023
XIV. **Field Trip:** May be required
XV. **Grading Option:** Letter Grade or Pass/No Pass Option
XVI. **Current Short Description:** Introduction to inorganic chemistry and quantitative problem solving.

## SECTION II

## COURSE ENROLLMENT INFORMATION

I. **Requisites:**
Prerequisite: CHEM 152 with a grade of "C" or better, or equivalent. Is a successor course in a discipline or cross-discipline sequence
& Prerequisite: CHEM 152L with a grade of "C" or better, or equivalent. Is a successor course in a discipline or cross-discipline sequence
& Prerequisite: MATH 96 with a grade of "C" or better, or equivalent. Intended to establish communication or computational skills or Milestone M50
Corequisite: Completion of or concurrent enrollment in: CHEM 200L with a grade of "C" or better, or equivalent.
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:**

## COURSE ANALYSIS DATA

I. **Reason for Proposed Action:** Distance Ed Revision only from Fully Online to Partially Online.
II. **How Does The Course Fit The College Mission?** 1. Transfer
III. **Current Transfer Options:** 1. CSU General Education 2. IGETC 3. UC Transfer Course List
IV. **Proposed College/District Purpose:** 1. District general education 2. Major Requirement - Associate Degree 3. Major Requirement - Certificate of Achievement
V. **Extraordinary Cost to the College:** None.
VI. **Library Resource Materials:** No new resources required.

## GENERAL EDUCATION ANALYSIS

**CSU General Education:**
B1 Area B. Scientific Inquiry and Quantitative Reasoning - Physical Science

**District General Education:**

B2 Natural Sciences - Physical Sciences

**IGETC:**
Area 5. Physical and Biological Sciences - 5A: Physical Science

**UC Transfer Course:**
Yes

**REQUISITES ANALYSIS**

**Working knowledge of problem solving skills, especially dimensional analysis.**

I. **Course: CHEM 152 Diagram and explain the scientific method.**
II. **Course: CHEM 152 Use dimensional analysis to solve problems to the correct number of significant figures and with correct units.**
III. **Course: CHEM 152 Explain key concepts and terminology related to the properties and classification of matter.**
IV. **Course: CHEM 152 Explain concepts and solve problems related to gases.**
V. **Course: CHEM 152 Explain concepts and solve problems related to acids and bases.**

**Working knowledge of chemistry laboratory equipment and procedures.**

I. **Course: CHEM 200L Characterize and/or identify unknown samples.**
II. **Course: CHEM 152L Apply the principles of laboratory safety.**
III. **Course: CHEM 200L Prepare solutions and determine the concentration of solutions.**
IV. **Course: CHEM 152L Use standard laboratory equipment, safety equipment and instruments properly.**
V. **Course: CHEM 200L Apply the key principles and calculations of stoichiometry to analyze data in an experiment, including empirical formula determinations and quantitative relationships in chemical reactions.**
VI. **Course: CHEM 152L Record and manipulate measurements using the correct number of significant figures.**
VII. **Course: CHEM 200L Apply the key principles and calculations of gas behavior in analyzing data collected in a gas law experiment.**
VIII. **Course: CHEM 152L Analyze and critically discuss data.**
IX. **Course: CHEM 200L Perform experiments related to solution properties and apply pertinent calculations and concepts.**
X. **Course: CHEM 200L Perform experiments illustrating the key principles and calculations of atomic theory and its applications to chemical bonding.**
XI. **Course: CHEM 152L Perform standard chemical techniques such as: gravimetric analysis, separation, titration, and solution preparation**
XII. **Course: CHEM 200L Perform experiments illustrating the key principles of periodic behavior of elements and/or compounds.**
XIII. **Course: CHEM 200L Perform experiments illustrating the key principles and/or calculations of phase changes.**
XIV. **Course: CHEM 152L Determine if a chemical reaction has taken place and predict the reaction products.**
XV. **Course: CHEM 200L Utilize common laboratory equipment and instruments.**
XVI. **Course: CHEM 152L Draw and use graphs to analyze data.**
XVII. **Course: CHEM 200L Utilize standard laboratory techniques and follow accepted safety procedures.**
XVIII. **Course: CHEM 152L Perform standard chemical calculations such as: unit conversions, stoichiometry, mole calculations, molarity, and gas law calculations.**
XIX. **Course: CHEM 152L Use chemical nomenclature**
XX. **Course: CHEM 200L Collect, organize, analyze, interpret, and present data.**

**Working knowledge of intermediate algebra.**

I. **Course: MATH 96 Solve systems of linear equations in three variables using a variety of methods, including matrices.**
II. **Course: MATH 96 Create graphs of systems of linear inequalities in two variables and determine the solution set.**
III. **Course: MATH 96 Simplify and perform basic arithmetic operations on radical expressions in both**

**radical and exponential form and solve radical equations.**

IV. **Course: MATH 96 Create graphs of nonlinear functions using various methods, including transformations.**

V. **Course: MATH 96 Perform basic arithmetic operations with complex numbers.**

VI. **Course: MATH 96 Solve quadratic equations including those having complex number solutions.**

VII. **Course: MATH 96 Identify and graph conic sections.**

VIII. **Course: MATH 96 Solve absolute value inequalities and nonlinear inequalities in one variable.**

IX. **Course: MATH 96 Perform basic algebra with functions, determine whether a function is one-to-one and find the inverse of a one-to-one function.**

X. **Course: MATH 96 Use the properties of and relationship between exponential and logarithmic functions to solve a variety of application problems.**

XI. **Course: MATH 96 Determine the type and pattern of simple sequences, including arithmetic and geometric sequences, and use appropriate notation in expressing the closed form of the sequence.**

XII. **Course: MATH 96 Apply arithmetic and geometric sequences and their sums in solving related problems.**

XIII. **Course: MATH 96 Identify three-dimensional geometric figures and apply the appropriate surface area and volume formulas.**

## SECTION III

## COURSE DISTANCE EDUCATION INFORMATION

I. **MESA**

II. **Distance Education Methods of Instruction:** 1. Partially online only

III. **Other Distance Education Methods:**

IV. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
   As needed.
   **Participant/s**: Faculty to Student/s
2. Discussion Board
   Once or twice a week.
   **Participant/s**: Faculty to Student/s , Among Students
3. Email/Message System
   As needed.
   **Participant/s**: Faculty to Student/s , Among Students
4. Field Trips
   May be required.
   **Participant/s**: Faculty to Student/s , Among Students
5. Group Meetings
   Students may be required to meet on campus once or twice per semester.
6. Synchronous or Asynchronous Video
   As assigned
   **Participant/s**: Faculty to Student/s , Among Students
7. Threaded Conferencing
   Once or twice a week.

V. **List of Techniques:** Examinations will be predominately in person with some online assessments and assignments. Class participation through chats and threaded discussions. Written assignments analyzing a variety of video posts related general chemistry concepts and demonstrations.

VI. **How to Evaluate Students for Achieved Outcomes:** Examinations will be predominately in person with some online assessments and assignments. Performance on class participation through threaded discussions. Performance on written assignments.

VII. **Additional Resources/Materials/Information:** SDCCD and DSPS personnel will provide all needed accommodations. DSPS will provide a student in an online classroom with the same level of support as an on-campus student. Provide text alternatives for any non-text content; Make it easier for users to see and hear content including separating foreground from background; Make text content readable and understandable. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

VIII. **Audio Visual Library Materials:** NO

IX. **MIRAMAR**

X. **Distance Education Methods of Instruction:** 1. Fully Online

XI. **Other Distance Education Methods:** Video conferencing using tools such as Zoom, Skype or CCCConfer as assigned.

XII. **Type and frequency of contact may include, but is not limited to:**

1. Chat Rooms
   as assigned
2. E-mail
   weekly
3. Group Meetings
   as assigned
4. Individual Meetings
   as needed
5. Telephone Contact
   as needed
6. Threaded Conferencing
   at least three times during the term

XIII. **List of Techniques:** Students will interact with each other and the instructor in ways that mirror the traditional classroom, only the delivery system will be altered. These methods include one-on-one communication with the instructor and other students via e-mail, the discussion board, the chat room, or live streaming broadcasting. In addition, students will participate in individual and group projects. Students will also demonstrate an understanding and integration of course concepts via research assignments, group projects, asynchronous class discussion, and/or other assignments.

XIV. **How to Evaluate Students for Achieved Outcomes:** Multiple measures will be used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, research reports, individual or group projects, and/or other assignments posted to the discussion board or other online collaboration tool.

XV. **Additional Resources/Materials/Information:** Additional materials and information, such as handouts, web links, and newspaper articles, may be provided electronically to supplement the course text(s). Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XVI. **Audio Visual Library Materials:** NO

XVII. **CITY**

XVIII. **Distance Education Methods of Instruction:** 1. Fully Online

XIX. **Other Distance Education Methods:**

XX. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
   weekly
2. Chat Rooms
   as assigned
3. Collaborative Web Documents
   as assigned
4. Conferencing
   as assigned
5. Discussion Board
   at least three times during the term
6. Email/Message System
   as needed
7. Field Trips
   as assigned
8. Group Meetings
   as assigned
9. Individual Meetings
   as needed
10. Individualized Assignment Feedback
    as assigned
11. Synchronous or Asynchronous Video
    as assigned
12. Telephone Contact
    as needed

XXI. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

XXII. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

XXIII. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XXIV. **Audio Visual Library Materials:** NO

## SECTION IV

## COURSE STUDENT LEARNING OUTCOME(S)

### CITY

- Students will compare and contrast the principal theories of ionic and covalent bonding.
- Students will perform advanced unit conversion problems using dimensional analysis.

### MESA

- Use current theories to describe atoms and compounds.
- Describe and/or write structure. Correlate the relationships between structure and properties.

### MIRAMAR

- After completing Chemistry 200, students will be proficient in the concepts and problem-solving techniques common to any first-semester general chemistry course as demonstrated by their performance on a standardized national exam.

## SECTION V

## COURSE DATA ADMINISTRATION ELEMENTS

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1905.00 Chemistry, General
**SAM Code:** E - Non Occupational
**Course Prior to College Level (CB21):** Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):** Y = Not applicable
**Course Support Course Status (CB26):** N = Course is not a support course
**Major Restriction Code:** NONE

II. **Lect Units:** 3.00
**Total Units:** 3
**Lecture Hours Min:** 48.00 **Max:** 54.00
**Lab Hours Min:** 0.00 **Max:** 0.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 48.00 **Max:**54.00
**Outside-of-Class Hours Min:** 96.00 **Max:**108.00
**Total Student Learning Hours Min:** 144.00 **Max:** 162.00
**FTEF Lecture Min:** 0.2000 **Max:**
**FTEF Lab Min:** 0.0000 **Max:**

**FTEF Total Min:** 0.2000 **Max:**

III. **Last Time Pre/Co Requisite Update:** 01/17/2023
IV. **Last Outline Revision Date:** 11/10/2022
V. **CIC Approval:**
VI. **BOT Approval:**
VII. **State Approval:**
VIII. **Revised State Approval:**
IX. **Course Approval Effective Date:**

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

CITY , MESA AND MIRAMAR COLLEGES

**Course Outline of Record:**
**Curriculum Proposal Report**

## SECTION I

I. **Subject Area:** Child Development
II. **Course Number:** 160
III. **Course Title:** Observation and Assessment of Children
IV. **Disciplines (Instructor Minimum Qualifications):** Child Development/Early Childhood Education
V.
VI. **Family:**
VII. **Current Short Title:** Observation and Assessment
VIII. **Course Is Active/Where?** CITY , MESA AND MIRAMAR
IX. **Originating Campus:** CITY
X. **Action Proposed:** Course Deactivation (Not at any College)
XI. **Distance Education Proposed At:** Miramar and City
XII. **Proposal Originating Date:** 02/15/2023
XIII. **Proposed Start Semester:** Fall 2024
XIV. **Field Trip:** May be required
XV. **Grading Option:** Grade Only
XVI. **Current Short Description:** Observing and understanding young children's behavioral and growth processes.

## SECTION II

## COURSE ENROLLMENT INFORMATION

I. **Requisites:**
Limitation on Enrollment:: Health and Safety. TB clearance within the last year is required.
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:** Texts are latest editions

## COURSE ANALYSIS DATA

I. **Reason for Proposed Action:** CHIL 160 content overlaps with the proposed CHIL 120 and needs to be deactivated in order for 120 to move forward.
II. **How Does The Course Fit The College Mission?** 1. Transfer 2. Vocational/Occupational
III. **Current Transfer Options:**
IV. **Proposed College/District Purpose:** 1. Major Requirement - Certificate of Achievement 2. Major Requirement - Associate Degree
V. **Extraordinary Cost to the College:** None..
VI. **Library Resource Materials:** No new resources required.

## GENERAL EDUCATION ANALYSIS

## REQUISITES ANALYSIS

## SECTION III

## COURSE DISTANCE EDUCATION INFORMATION

I. **MESA**
II. **Distance Education Methods of Instruction:** 1. Hybrid only
III. **Other Distance Education Methods:**

IV. **Type and frequency of contact may include, but is not limited to:**
1. Chat Rooms
   Frequently
2. E-mail
   Frequently
3. Telephone Contact
   As needed
4. Threaded Conferencing
   As needed

V. **List of Techniques:** Assignments and tests that will be used in the Distance Education course will be exactly the same as those in the traditional course. Students will submit all course work (tests and assignments) electronically to the instructor for grading.

VI. **How to Evaluate Students for Achieved Outcomes:** The evaluation methods will mirror the on-campus course as specified in the course outline. The feedback on assignments and tests will be submitted electronically to the student.

VII. **Additional Resources/Materials/Information:** SDCCD and DSPS personnel will provide all needed accommodations. DSPS will provide a student in an online classroom with the same level of support as an on-campus student Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

VIII. **Audio Visual Library Materials:** NO

IX. **MIRAMAR**

X. **Distance Education Methods of Instruction:** 1. Online-Emergency Only

XI. **Other Distance Education Methods:** Video observations of children aged two to five in a child care center setting are required for the laboratory portion of the course in accordance with guidance from the California Commission on Teacher Credentialing.

XII. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
   weekly
2. Collaborative Web Documents
   as assigned
3. Conferencing
   as assigned
4. Discussion Board
   at least three times during the term
5. Email/Message System
   as needed
6. Group Meetings
   as assigned
7. Individual Meetings
   as needed
8. Individualized Assignment Feedback
   as assigned
9. Synchronous or Asynchronous Video
   video observations of children aged two to five in a child care center setting are required for the laboratory portion of the course
10. Telephone Contact
   as needed

XIII. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, and synchronous video or in-person conferencing for mentoring purposes. For the laboratory portion of the course, students view videos of children aged two to five in a child care center setting and compose reflections, journal entries, or other writing assignments based on their observations.

XIV. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board, including objective observations of children, analyses of childrenâ€™s behavior and interactions, and proposed interactions to promote optimal development for individual children.

XV. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in

an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XVI. **Audio Visual Library Materials:** NO

XVII. **CITY**

XVIII. **Distance Education Methods of Instruction:** 1. Fully Online

XIX. **Other Distance Education Methods:**

XX. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
   weekly
2. Collaborative Web Documents
   as assigned
3. Conferencing
   as assigned
4. Discussion Board
   at least three times per term
5. Email/Message System
   as needed
6. Field Trips
   as assigned
7. Group Meetings
   as assigned
8. Individualized Assignment Feedback
   as assigned
9. Synchronous or Asynchronous Video
   as assigned
10. Telephone Contact
    as needed

XXI. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, and synchronous video or in-person conferencing for mentoring purposes. Students are required to complete observations of childrenâ€™s behavior and interactions in approved settings, whether online or in-person.

XXII. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board, including objective observations of children, analyses of childrenâ€™s behavior and interactions, and proposed interactions to promote optimal development for individual children.

XXIII. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XXIV. **Audio Visual Library Materials:** NO

## SECTION IV

## COURSE STUDENT LEARNING OUTCOME(S)

### CITY

- The student will identify appropriate teacher responses for facilitating conflict resolution with children in a typical scenario.
- The student will identify objective and subjective observation statements.

### MESA

- Describe and interpret the operating policies and procedures of the campus lab.
- Implement appropriate guidance techniques and practices with young children.

**MIRAMAR**

- SLO Recognize the role of observation in interpreting children's behavior. Measurement Method Be able to identify four reasons why it is important to observe children.

**SECTION V**

**COURSE DATA ADMINISTRATION ELEMENTS**

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1305.00 Child Development/Early Care and Education
**SAM Code:** C - Clearly Occupational
**Course Prior to College Level (CB21):** Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):**
**Course Support Course Status (CB26):**
**Major Restriction Code:** NONE

II. **Lect Units:** 1.00
**Lab Units:** 1.00
**Total Units:** 2
**Lecture Hours Min:** 16.00 **Max:** 18.00
**Lab Hours Min:** 48.00 **Max:** 54.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 64.00 **Max:**72.00
**Outside-of-Class Hours Min:** 32.00 **Max:**36.00
**Total Student Learning Hours Min:** 96.00 **Max:** 108.00
**FTEF Lecture Min:** 0.0667 **Max:**
**FTEF Lab Min:** 0.2000 **Max:**
**FTEF Total Min:** 0.2667 **Max:**

III. **Last Time Pre/Co Requisite Update:** 02/15/2023

IV. **Last Outline Revision Date:** 05/14/2020

V. **CIC Approval:**

VI. **BOT Approval:**

VII. **State Approval:**

VIII. **Revised State Approval:**

IX. **Course Approval Effective Date:**

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

View Printable Version

## Previous Report

CHEM 200

CIC Approval: 11/10/2022
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM: Fall 2024

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, MESA, AND MIRAMAR COLLEGES
## ASSOCIATE DEGREE COURSE OUTLINE

**SECTION I**

**SUBJECT AREA AND COURSE NUMBER:** Chemistry 200

**COURSE TITLE:**
General Chemistry I - Lecture

**Units:**
3
Letter Grade or Pass/No Pass Option

**CATALOG COURSE DESCRIPTION:**

This is the first course in a two-course sequence in general chemistry. Emphasis is placed on the principles and laws of inorganic chemistry, including quantitative, mathematical problem solving. Topics include chemical equations, stoichiometry, atomic theory and its relationship to periodicity of the elements, bonding theories, molecular geometry, calorimetry, thermochemistry, solution chemistry, liquids, solids, and the gas laws. This course is intended for science majors and all students interested in chemistry.

**REQUISITES:**

**Prerequisite:**
CHEM 152 with a grade of "C" or better, or equivalent
&
CHEM 152L with a grade of "C" or better, or equivalent
&
MATH 96 with a grade of "C" or better, or equivalent or Milestone M50
**Corequisite: Completion of or concurrent enrollment in:**
CHEM 200L with a grade of "C" or better, or equivalent

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU CSU General Education IGETC UC Transfer Course List

**CID:**
CHEM 110; CHEM 120S (CHEM 200, 200L, 201, 201L)

**TOTAL LECTURE HOURS:**
48 - 54

**TOTAL LAB HOURS:**

**TOTAL CONTACT HOURS:**
48 - 54

**OUTSIDE-OF-CLASS HOURS:**
96 - 108

**TOTAL STUDENT LEARNING HOURS:**
144 - 162

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

1. Perform advanced unit conversion problems using dimensional analysis.

## Current Report

CHEM 200

CIC Approval:
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM:

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, MESA, AND MIRAMAR COLLEGES
## ASSOCIATE DEGREE COURSE OUTLINE

**SECTION I**

**SUBJECT AREA AND COURSE NUMBER:** Chemistry 200

**COURSE TITLE:**
General Chemistry I - Lecture

**Units:**
3
Letter Grade or Pass/No Pass Option

**CATALOG COURSE DESCRIPTION:**

This is the first course in a two-course sequence in general chemistry. Emphasis is placed on the principles and laws of inorganic chemistry, including quantitative, mathematical problem solving. Topics include chemical equations, stoichiometry, atomic theory and its relationship to periodicity of the elements, bonding theories, molecular geometry, calorimetry, thermochemistry, solution chemistry, liquids, solids, and the gas laws. This course is intended for science majors and all students interested in chemistry.

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**Prerequisite:**
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&
CHEM 152L with a grade of "C" or better, or equivalent
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**Corequisite: Completion of or concurrent enrollment in:**
CHEM 200L with a grade of "C" or better, or equivalent

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU CSU General Education IGETC UC Transfer Course List

**CID:**
CHEM 110; CHEM 120S (CHEM 200, 200L, 201, 201L)

**TOTAL LECTURE HOURS:**
48 - 54

**TOTAL LAB HOURS:**

**TOTAL CONTACT HOURS:**
48 - 54

**OUTSIDE-OF-CLASS HOURS:**
96 - 108

**TOTAL STUDENT LEARNING HOURS:**
144 - 162

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

1. Perform advanced unit conversion problems using dimensional analysis.
2. Write and balance chemical equations, including word and ionic equations, and perform stoichiometric calculations for amounts of reactants and products, including calculations of theoretical and percent yields.

2. Write and balance chemical equations, including word and ionic equations, and perform stoichiometric calculations for amounts of reactants and products, including calculations of theoretical and percent yields.
3. Write chemical equations for the ionization of acids, bases, and the dissociation of aqueous salts.
4. Discriminate between precipitation, acid-base, reduction-oxidation, and single replacement types of reactions; predict whether an aqueous phase reaction will occur, and if a reaction occurs, write the product(s) and a balanced equation.
5. Solve gas law problems with an emphasis on the Ideal Gas Law, Dalton's Law of Partial Pressures, and the Kinetic Molecular Theory of Gases.
6. Solve problems involving electromagnetic radiation, write sets of quantum numbers, write electron configurations, and draw orbital diagrams for the elements.
7. Explain periodic trends in atomic radii, ionization energy, electron affinity, and their relationship to reactivity within a chemical family.
8. Compare and contrast the principal theories of ionic and covalent bonding.
9. Compare and contrast the properties of the liquid and solid states, including phase changes, with emphasis on defining, analyzing, and integrating relationships between intermolecular forces, vapor pressure, and physical properties.
10. Solve problems involving different measures of concentration, explain and analyze the factors that affect the formation of a solution, and solve problems related to colligative properties.
11. Explain key terms and solve quantitative calculations pertaining to enthalpy and thermochemistry.

**SECTION II**

**1. COURSE OUTLINE AND SCOPE:**

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

I. Dimensional Analysis
  A. Square and cubic conversions
  B. Conversion of derived units such as joules and pascals
II. Chemical Equations and Stoichiometric Calculations
  A. Writing equations from word equations
    1. Molecular equations
    2. If applicable complete ionic equations
    3. If applicable net ionic equations
  B. Solving problems involving a limiting reagent
  C. Calculating a theoretical and percentage yield
  D. Solution stoichiometry including titration
III. Ionization of Acids Bases and Salts in Aqueous Solution
  A. Discriminating between soluble and insoluble salts
  B. The dissolution process
  C. Equations describing the ionization of weak and strong acids and bases
IV. Predicting and Classifying Reactions
  A. Precipitation reactions including the use of solubility tables or rules
  B. Acid-base reactions including gas-forming reactions
  C. Single-replacement reactions including the use of an activity series
V. Gas Law Calculations and Concepts
  A. Ideal Gas Law
    1. Molar mass and density determination
    2. Molar volume and standard temperature and pressure (STP)
    3. Gas law stoichiometry
    4. Changing of gas pressure volume and temperature parameters
  B. Dalton's Law of Partial Pressures
  C. Kinetic Molecular Theory
    1. Root-mean-square velocity
    2. Effusion and diffusion
VI. Atomic Theory
  A. Calculations involving electromagnetic radiation
  B. Calculations involving the Bohr model of the atom
  C. Quantum mechanics
    1. Orbitals
    2. Quantum numbers
    3. Electron configurations
    4. Orbital diagrams
VII. Periodic Trends
  A. Atomic radii
  B. Ionization energy
  C. Electron affinity
  D. Relationships to chemical reactivity within a family
VIII. Bonding Theories
  A. Ionic bonding

3. Write chemical equations for the ionization of acids, bases, and the dissociation of aqueous salts.
4. Discriminate between precipitation, acid-base, reduction-oxidation, and single replacement types of reactions; predict whether an aqueous phase reaction will occur, and if a reaction occurs, write the product(s) and a balanced equation.
5. Solve gas law problems with an emphasis on the Ideal Gas Law, Dalton's Law of Partial Pressures, and the Kinetic Molecular Theory of Gases.
6. Solve problems involving electromagnetic radiation, write sets of quantum numbers, write electron configurations, and draw orbital diagrams for the elements.
7. Explain periodic trends in atomic radii, ionization energy, electron affinity, and their relationship to reactivity within a chemical family.
8. Compare and contrast the principal theories of ionic and covalent bonding.
9. Compare and contrast the properties of the liquid and solid states, including phase changes, with emphasis on defining, analyzing, and integrating relationships between intermolecular forces, vapor pressure, and physical properties.
10. Solve problems involving different measures of concentration, explain and analyze the factors that affect the formation of a solution, and solve problems related to colligative properties.
11. Explain key terms and solve quantitative calculations pertaining to enthalpy and thermochemistry.

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**1. COURSE OUTLINE AND SCOPE:**

A. **Outline Of Topics:**
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I. Dimensional Analysis
  A. Square and cubic conversions
  B. Conversion of derived units such as joules and pascals
II. Chemical Equations and Stoichiometric Calculations
  A. Writing equations from word equations
    1. Molecular equations
    2. If applicable complete ionic equations
    3. If applicable net ionic equations
  B. Solving problems involving a limiting reagent
  C. Calculating a theoretical and percentage yield
  D. Solution stoichiometry including titration
III. Ionization of Acids Bases and Salts in Aqueous Solution
  A. Discriminating between soluble and insoluble salts
  B. The dissolution process
  C. Equations describing the ionization of weak and strong acids and bases
IV. Predicting and Classifying Reactions
  A. Precipitation reactions including the use of solubility tables or rules
  B. Acid-base reactions including gas-forming reactions
  C. Single-replacement reactions including the use of an activity series
V. Gas Law Calculations and Concepts
  A. Ideal Gas Law
    1. Molar mass and density determination
    2. Molar volume and standard temperature and pressure (STP)
    3. Gas law stoichiometry
    4. Changing of gas pressure volume and temperature parameters
  B. Dalton's Law of Partial Pressures
  C. Kinetic Molecular Theory
    1. Root-mean-square velocity
    2. Effusion and diffusion
VI. Atomic Theory
  A. Calculations involving electromagnetic radiation
  B. Calculations involving the Bohr model of the atom
  C. Quantum mechanics
    1. Orbitals
    2. Quantum numbers
    3. Electron configurations
    4. Orbital diagrams
VII. Periodic Trends
  A. Atomic radii
  B. Ionization energy
  C. Electron affinity
  D. Relationships to chemical reactivity within a family
VIII. Bonding Theories
  A. Ionic bonding
    1. Desire for noble gas electron configuration

1. Desire for noble gas electron configuration
2. Ionic radii
3. Lattice energy

B. Covalent bonding
1. Lewis structures
a. Expanded octets
b. Formal charges
c. Resonance
2. Molecular shape: valence shell electron pair repulsion (VSEPR)
3. Hybridization
4. Polarity
a. Electronegativity
b. Dipole moments
c. Relationship to Lewis structures molecular shapes and hydridization

IX. Liquids and Solids
A. Intermolecular forces
1. Ion-dipole
2. Dipole-dipole including hydrogen bonding
3. Instantaneous-induced dipole

B. Vapor pressure
1. Claussius-Clapeyron equation
2. Relationship to boiling point
3. Relationship to intermolecular forces

C. Physical properties in relationship to intermolecular forces
1. Vapor pressure
2. Boiling point
3. Melting point
4. Surface tension
5. Viscosity

D. Phase changes and phase diagrams
1. Critical temperature and pressure
2. Heat of vaporization and heat of fusion

X. Solutions
A. Concentration
1. Molarity
2. Percentage by mass
3. Mole fraction
4. Molality

B. Factors affecting the formation of a solution
1. Temperature
2. Pressure
3. Bonding/intermolecular forces

C. Colligative properties
1. Vapor pressure lowering
2. Boiling point elevation
3. Freezing point depression
4. Determination of molar mass

XI. Thermochemistry
A. Potential and kinetic energy
B. Work and heat
C. Calorimetry
D. First Law of Thermodynamics
E. Enthalpy
F. Endothermic and exothermic
G. System and surroundings
H. Thermochemical calculations

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. Assigned textbook related to chemistry.
II. Selections from scientific journals and periodicals.
III. Selections from Internet sites related to science and chemistry.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Brief response to an article on a theoretical or practical application of chemistry.
II. General chemistry problems.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

2. Ionic radii
3. Lattice energy

B. Covalent bonding
1. Lewis structures
a. Expanded octets
b. Formal charges
c. Resonance
2. Molecular shape: valence shell electron pair repulsion (VSEPR)
3. Hybridization
4. Polarity
a. Electronegativity
b. Dipole moments
c. Relationship to Lewis structures molecular shapes and hydridization

IX. Liquids and Solids
A. Intermolecular forces
1. Ion-dipole
2. Dipole-dipole including hydrogen bonding
3. Instantaneous-induced dipole

B. Vapor pressure
1. Claussius-Clapeyron equation
2. Relationship to boiling point
3. Relationship to intermolecular forces

C. Physical properties in relationship to intermolecular forces
1. Vapor pressure
2. Boiling point
3. Melting point
4. Surface tension
5. Viscosity

D. Phase changes and phase diagrams
1. Critical temperature and pressure
2. Heat of vaporization and heat of fusion

X. Solutions
A. Concentration
1. Molarity
2. Percentage by mass
3. Mole fraction
4. Molality

B. Factors affecting the formation of a solution
1. Temperature
2. Pressure
3. Bonding/intermolecular forces

C. Colligative properties
1. Vapor pressure lowering
2. Boiling point elevation
3. Freezing point depression
4. Determination of molar mass

XI. Thermochemistry
A. Potential and kinetic energy
B. Work and heat
C. Calorimetry
D. First Law of Thermodynamics
E. Enthalpy
F. Endothermic and exothermic
G. System and surroundings
H. Thermochemical calculations

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. Assigned textbook related to chemistry.
II. Selections from scientific journals and periodicals.
III. Selections from Internet sites related to science and chemistry.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Brief response to an article on a theoretical or practical application of chemistry.
II. General chemistry problems.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Problem solving exercises assigned from the textbook, study guide, and/or instructor packets related to chemistry.
II. Background reading related to a variety of topics in general chemistry.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Solve multi-variable problems using empirical data.
II. Predict the outcome of a chemical reaction based upon solubility tables, activity series, and properties of acids and bases.
III. Compare relative physical and chemical properties of elements based upon their position within a chemical family.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Quizzes and exams.
II. Homework assignments.
III. Written assignments.
IV. Class participation.

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Computer Assisted Instruction
* Distance Education (Fully online)
* Lecture
* Other (Specify)
* Demonstration

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**
1. Brown, Theodore E.; Lemay, H. Eugene; Bursten, Bruce E.; Murphy, Catherine; Woodward, Patrick; Stoltzfus, Matthew E. Chemistry: The Central Science, 14th ed. Pearson, 2018, ISBN: 9780134414232
2. OpenStax. Chemistry: Atoms First, 2nd ed. OpenStax, 2019, ISBN: 978194717264
3. Tro, Nivaldo J. Chemistry: Structure and Properties, 2nd ed. Pearson, 2018, ISBN: 9780134293936
4. Zumdahl, Steven S.; Zumdahl, Susan A.; DeCoste, Donald J. Chemistry, 10th ed. Cengage, 2018, ISBN: 9781305957404

**MANUALS:**

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**
1. Scientific calculator

**ORIGINATOR:** James Covalt
**ORIGINATION DATE:** 08/07/2014
**PROPOSAL ORIGINATOR:** Namphol Sinkaset
**CO-CONTRIBUTOR(S)**
**PROPOSAL DATE:** 05/06/2022

Status: Approved

Date Printed: 04/13/2023

I. Problem solving exercises assigned from the textbook, study guide, and/or instructor packets related to chemistry.
II. Background reading related to a variety of topics in general chemistry.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Solve multi-variable problems using empirical data.
II. Predict the outcome of a chemical reaction based upon solubility tables, activity series, and properties of acids and bases.
III. Compare relative physical and chemical properties of elements based upon their position within a chemical family.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Quizzes and exams.
II. Homework assignments.
III. Written assignments.
IV. Class participation.

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Computer Assisted Instruction
* Distance Education (Fully online)
* Distance Education (Partially online)
* Lecture
* Other (Specify)
* Demonstration

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**
1. Brown, Theodore E.; Lemay, H. Eugene; Bursten, Bruce E.; Murphy, Catherine; Woodward, Patrick; Stoltzfus, Matthew E. Chemistry: The Central Science, 14th ed. Pearson, 2018, ISBN: 9780134414232
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**MANUALS:**

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**
1. Scientific calculator

**ORIGINATOR:** Namphol Sinkaset
**ORIGINATION DATE:** 05/06/2022
**PROPOSAL ORIGINATOR:** Paula Gustin
**CO-CONTRIBUTOR(S)**
**PROPOSAL DATE:** 01/17/2023

Status: Launched

Date Printed: 04/13/2023

View Printable Version

## Previous Report

CHIL 160

CIC Approval: 05/14/2020
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM: Fall 2021

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, MESA, AND MIRAMAR COLLEGES
## ASSOCIATE DEGREE COURSE OUTLINE

**SECTION I**

**SUBJECT AREA AND COURSE NUMBER:** Child Development 160

**COURSE TITLE:**
Observation and Assessment of Children

**Units:**
2
Grade Only

**CATALOG COURSE DESCRIPTION:**

This course focuses on behavioral patterns and growth processes of young children through the use of a variety of assessment and observation strategies to document child development and behavior. Child observations are conducted and analyzed through supervised participation in the campus early education center. Topics include the use of observation and assessment of children in planning, implementing, and evaluating early childhood curriculum and environments. This course partially fulfills the specialization requirements for the State of California Master Teacher Permit.

**REQUISITES:**

**Limitation on Enrollment:**
Health and Safety. TB clearance within the last year is required.

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU

**CID:**

**TOTAL LECTURE HOURS:**
16 - 18

**TOTAL LAB HOURS:**
48 - 54

**TOTAL CONTACT HOURS:**
64 - 72

**OUTSIDE-OF-CLASS HOURS:**
32 - 36

**TOTAL STUDENT LEARNING HOURS:**
96 - 108

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

1. Describe and interpret the operating policies and procedures of the campus lab.
2. Apply the philosophy of the campus lab when carrying assigned tasks.
3. Identify the purpose, value, and use of formal and informal observation and assessment strategies.
4. Display appropriate guidance techniques and practices in working with young children.
5. Examine the role of observation in interpreting children's behavior.
6. Complete systemic observations using a variety of methods of data collection to assess the impact of the

## Current Report

CHIL 160

CIC Approval:
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM:

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, MESA, AND MIRAMAR COLLEGES
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3. Identify the purpose, value, and use of formal and informal observation and assessment strategies.
4. Display appropriate guidance techniques and practices in working with young children.
5. Examine the role of observation in interpreting children's behavior.
6. Complete systemic observations using a variety of methods of data collection to assess the impact of the environment, interactions, and curriculum on children's development and behavior.

environment, interactions, and curriculum on children's development and behavior.

**SECTION II**

**1. COURSE OUTLINE AND SCOPE:**

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

I. Organization and procedures of the campus lab
  A. Goals and philosophy
  B. Operating policies and procedures
  C. Classroom organization daily routines and developmental program
  D. Role of the student aide
  E. Effective ways to work with young children
II. Growth and development patterns of young children
  A. Physical
  B. Cognitive
  C. Language
  D. Social
  E. Emotional
III. Guidance techniques and procedures in working with young children
  A. Guidance principles values and positive behavior
  B. All behavior has meaning
  C. Parental/teacher expectations
  D. Cultural differences in child rearing
  E. Age-appropriate guidance
  F. Effective questioning strategies
IV. Observation and assessment of young children's behavior
  A. Purpose and objective of child observations
  B. Observer's role
  C. Child observation techniques and tools
  D. Using Desired Results Developmental Profiles

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. Assigned text related to child development and/or observation.
II. Child development journals, such as Young Children.
III. Collections of articles, such as Annual Editions of Early Childhood Education
IV. San Diego Community College Participant's Handbook.
V. Instructor handouts.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Reflections on observations and implementation of child guidance techniques during lab time.
II. Use observation information tied to Desired Results Developmental Profiles (DRDP) to explore possibilities for curriculum planning.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Completing reading and writing assignments.
II. Observing children.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Interpreting and applying lab student policies and procedures.
II. Observing behavior and applying appropriate guidance techniques with young children.
III. Use observation information tied to Desired Results Developmental Profiles (DRDP) to explore possibilities for curriculum planning.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

**SECTION II**

**1. COURSE OUTLINE AND SCOPE:**

A. **Outline Of Topics:**
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  D. Social
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  D. Using Desired Results Developmental Profiles

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I. Quizzes and exams

I. Quizzes and exams
II. Writing assignments
III. Child observations
IV. Evaluation of participation in the campus child development lab and application of the policies and procedures of the lab
V. Class participation

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Computer Assisted Instruction
* Distance Education (Fully online)
* Distance Education (Fully online)
* Lecture-Lab Combination
* Shadowing
* Other (Specify)
* Class participation
* Coaching for active participation with children in lab setting

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**
1. Deb Curtis & Margie Carter. Art of Awareness: How Observation Can Transform Your Teaching, 2nd ed. Redleaf Press, 2013, ISBN: 9781605540863

**MANUALS:**
1. California Department of Education. Desired Results Developmental Profile, California Department of Education, 06-01-2015
2. San Diego Community College District. The San Diego Community College District Child Development Center Family Handbook, San Diego Community College District, 04-01-2020

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**

**ORIGINATOR:** Berta Harris

**CO-CONTRIBUTOR(S)** Denise Blaha,Rebecca Collins
**DATE:** 07/10/2017

Status: Active

Date Printed: 03/9/2023

II. Writing assignments
III. Child observations
IV. Evaluation of participation in the campus child development lab and application of the policies and procedures of the lab
V. Class participation

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Collaborative Learning
* Computer Assisted Instruction
* Distance Education (Fully online)
* Distance Education (Fully online)
* Lecture-Lab Combination
* Shadowing
* Other (Specify)
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* Coaching for active participation with children in lab setting

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**MANUALS:**
1. California Department of Education. Desired Results Developmental Profile, California Department of Education, 06-01-2015
2. San Diego Community College District. The San Diego Community College District Child Development Center Family Handbook, San Diego Community College District, 04-01-2020

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**

**ORIGINATOR:** Berta Harris
**ORIGINATION DATE:** 07/10/2017
**PROPOSAL ORIGINATOR:** Rebecca Collins
**CO-CONTRIBUTOR(S)**
**PROPOSAL DATE:** 02/15/2023

Status: Launched

Date Printed: 03/9/2023

View Printable Version

# Previous Report

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

**CITY , MESA AND MIRAMAR COLLEGES**

**Course Outline of Record:**
**Curriculum Proposal Report**

**SECTION I**

I. **Subject Area:** Chemistry
II. **Course Number:** 200
III. **Course Title:** General Chemistry I - Lecture
IV. **Disciplines (Instructor Minimum Qualifications):** Chemistry
V.
VI. **Family:**
VII. **Current Short Title:** General Chemistry I - Lecture
VIII. **Course Is Active/Where?** CITY , MESA AND MIRAMAR
IX. **Originating Campus:** MIRAMAR
X. **Action Proposed:** Course Revision (May Include Activation)
XI. **Distance Education Proposed At:** Mesa , Miramar and City
XII. **Proposal Originating Date:** 05/06/2022
XIII. **Proposed Start Semester:** Fall 2024
XIV. **Field Trip:** May be required
XV. **Grading Option:** Letter Grade or Pass/No Pass Option
XVI. **Current Short Description:** Intro to inorganic chemistry and quantitative problem solving.
**Proposed Short Description:** Introduction to inorganic chemistry and quantitative problem solving.

**SECTION II**

**COURSE ENROLLMENT INFORMATION**

I. **Requisites:**
Prerequisite: CHEM 152 with a grade of "C" or better, or equivalent. Is a successor course in a discipline or cross-discipline sequence
& Prerequisite: CHEM 152L with a grade of "C" or better, or equivalent. Is a successor course in a discipline or cross-discipline sequence
& Prerequisite: MATH 96 with a grade of "C" or better, or equivalent. Intended to establish communication or computational skills or Milestone M50
Corequisite: Completion of or concurrent enrollment in: CHEM 200L with a grade of "C" or better, or equivalent.
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:**

**COURSE ANALYSIS DATA**

I. **Reason for Proposed Action:** 6-year review (Course revision is for six year review.)
II. **How Does The Course Fit The College Mission?** 1. Transfer
III. **Current Transfer Options:** 1. CSU General Education 2. IGETC 3. UC Transfer Course List
IV. **Proposed College/District Purpose:** 1. District general education 2. Major Requirement - Associate Degree 3. Major Requirement - Certificate of Achievement
V. **Extraordinary Cost to the College:** None.
VI. **Library Resource Materials:** No new resources required..

**GENERAL EDUCATION ANALYSIS**

# Current Report

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

**CITY , MESA AND MIRAMAR COLLEGES**

**Course Outline of Record:**
**Curriculum Proposal Report**

**SECTION I**

I. **Subject Area:** Chemistry
II. **Course Number:** 200
III. **Course Title:** General Chemistry I - Lecture
IV. **Disciplines (Instructor Minimum Qualifications):** Chemistry
V.
VI. **Family:**
VII. **Current Short Title:** General Chemistry I - Lecture
VIII. **Course Is Active/Where?**
IX. **Originating Campus:** MESA
X. **Action Proposed:** Course Revision (May Include Activation)
XI. **Distance Education Proposed At:** Mesa , Miramar and City
XII. **Proposal Originating Date:** 01/17/2023
XIII. **Proposed Start Semester:** Summer 2023
XIV. **Field Trip:** May be required
XV. **Grading Option:** Letter Grade or Pass/No Pass Option
XVI. **Current Short Description:** Introduction to inorganic chemistry and quantitative problem solving.

**SECTION II**

**COURSE ENROLLMENT INFORMATION**

I. **Requisites:**
Prerequisite: CHEM 152 with a grade of "C" or better, or equivalent. Is a successor course in a discipline or cross-discipline sequence
& Prerequisite: CHEM 152L with a grade of "C" or better, or equivalent. Is a successor course in a discipline or cross-discipline sequence
& Prerequisite: MATH 96 with a grade of "C" or better, or equivalent. Intended to establish communication or computational skills or Milestone M50
Corequisite: Completion of or concurrent enrollment in: CHEM 200L with a grade of "C" or better, or equivalent.
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:**

**COURSE ANALYSIS DATA**

I. **Reason for Proposed Action:** Distance Ed Revision only from Fully Online to Partially Online.
II. **How Does The Course Fit The College Mission?** 1. Transfer
III. **Current Transfer Options:** 1. CSU General Education 2. IGETC 3. UC Transfer Course List
IV. **Proposed College/District Purpose:** 1. District general education 2. Major Requirement - Associate Degree 3. Major Requirement - Certificate of Achievement
V. **Extraordinary Cost to the College:** None.
VI. **Library Resource Materials:** No new resources required.

**GENERAL EDUCATION ANALYSIS**

**CSU General Education:**

**CSU General Education:**
B1 Area B. Scientific Inquiry and Quantitative Reasoning - Physical Science

**District General Education:**
B2 Natural Sciences - Physical Sciences

**IGETC:**
Area 5. Physical and Biological Sciences - 5A: Physical Science

**UC Transfer Course:**
Yes

**REQUISITES ANALYSIS**

**Working knowledge of problem solving skills, especially dimensional analysis.**

I. **Course: CHEM 152 Use dimensional analysis to solve problems to the correct number of significant figures and with correct units.**
II. **Course: CHEM 152 Write formulas for ionic compounds, covalent compounds and acids from names and names of compounds from formulas.**
III. **Course: CHEM 152 Perform mole, stoichiometric and concentration calculations.**
IV. **Course: CHEM 152 Draw Lewis structures of simple compounds.**
V. **Course: CHEM 152 Explain concepts and solve problems related to gases.**
VI. **Course: CHEM 152 Explain concepts and solve problems related to acids and bases.**

**Working knowledge of chemistry laboratory equipment and procedures.**

I. **Course: CHEM 200L Characterize and/or identify unknown samples.**
II. **Course: CHEM 152L Apply the principles of laboratory safety.**
III. **Course: CHEM 200L Prepare solutions and determine the concentration of solutions.**
IV. **Course: CHEM 152L Use standard laboratory equipment, safety equipment and instruments properly.**
V. **Course: CHEM 200L Apply the key principles and calculations of stoichiometry to analyze data in an experiment, including empirical formula determinations and quantitative relationships in chemical reactions.**
VI. **Course: CHEM 152L Record and manipulate measurements using the correct number of significant figures.**
VII. **Course: CHEM 200L Apply the key principles and calculations of gas behavior in analyzing data collected in a gas law experiment.**
VIII. **Course: CHEM 152L Analyze and critically discuss data.**
IX. **Course: CHEM 200L Perform experiments related to solution properties and apply pertinent calculations and concepts.**
X. **Course: CHEM 200L Perform experiments illustrating the key principles and calculations of atomic theory and its applications to chemical bonding.**
XI. **Course: CHEM 152L Perform standard chemical techniques such as: gravimetric analysis, separation, titration, and solution preparation**
XII. **Course: CHEM 200L Perform experiments illustrating the key principles of periodic behavior of elements and/or compounds.**
XIII. **Course: CHEM 200L Perform experiments illustrating the key principles and/or calculations of phase changes.**
XIV. **Course: CHEM 152L Determine if a chemical reaction has taken place and predict the reaction products.**
XV. **Course: CHEM 200L Utilize common laboratory equipment and instruments.**
XVI. **Course: CHEM 152L Draw and use graphs to analyze data.**
XVII. **Course: CHEM 200L Utilize standard laboratory techniques and follow accepted safety procedures.**
XVIII. **Course: CHEM 152L Perform standard chemical calculations such as: unit conversions, stoichiometry, mole calculations, molarity, and gas law calculations.**
XIX. **Course: CHEM 152L Use chemical nomenclature**
XX. **Course: CHEM 200L Collect, organize, analyze, interpret, and present data.**

**Working knowledge of intermediate algebra.**

I. **Course: MATH 96 Simplify and perform basic arithmetic operations on radical expressions in both radical and exponential form and solve radical equations.**
II. **Course: MATH 96 Perform basic arithmetic operations with complex numbers.**
III. **Course: MATH 96 Solve quadratic equations including those having complex number solutions.**
IV. **Course: MATH 96 Perform basic algebra with functions, determine whether a function is one-to-one**

B1 Area B. Scientific Inquiry and Quantitative Reasoning - Physical Science

**District General Education:**
B2 Natural Sciences - Physical Sciences

**IGETC:**
Area 5. Physical and Biological Sciences - 5A: Physical Science

**UC Transfer Course:**
Yes

**REQUISITES ANALYSIS**

**Working knowledge of problem solving skills, especially dimensional analysis.**

I. **Course: CHEM 152 Diagram and explain the scientific method.**
II. **Course: CHEM 152 Use dimensional analysis to solve problems to the correct number of significant figures and with correct units.**
III. **Course: CHEM 152 Explain key concepts and terminology related to the properties and classification of matter.**
IV. **Course: CHEM 152 Explain concepts and solve problems related to gases.**
V. **Course: CHEM 152 Explain concepts and solve problems related to acids and bases.**

**Working knowledge of chemistry laboratory equipment and procedures.**

I. **Course: CHEM 200L Characterize and/or identify unknown samples.**
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XVII. **Course: CHEM 200L Utilize standard laboratory techniques and follow accepted safety procedures.**
XVIII. **Course: CHEM 152L Perform standard chemical calculations such as: unit conversions, stoichiometry, mole calculations, molarity, and gas law calculations.**
XIX. **Course: CHEM 152L Use chemical nomenclature**
XX. **Course: CHEM 200L Collect, organize, analyze, interpret, and present data.**

**Working knowledge of intermediate algebra.**

I. **Course: MATH 96 Solve systems of linear equations in three variables using a variety of methods, including matrices.**
II. **Course: MATH 96 Create graphs of systems of linear inequalities in two variables and determine the solution set.**
III. **Course: MATH 96 Simplify and perform basic arithmetic operations on radical expressions in both radical and exponential form and solve radical equations.**
IV. **Course: MATH 96 Create graphs of nonlinear functions using various methods, including**

and find the inverse of a one-to-one function.

V. Course: MATH 96 Use the properties of and relationship between exponential and logarithmic functions to solve a variety of application problems.

**SECTION III**

**COURSE DISTANCE EDUCATION INFORMATION**

I. **MESA**

II. **Distance Education Methods of Instruction:** 1. On-line/Web Based

III. **Other Distance Education Methods:**

IV. **Type and frequency of contact may include, but is not limited to:**

1. Chat Rooms
   Once or twice a week.
2. E-mail
   As needed.
3. Field Trips
   May be required.
4. Group Meetings
   Students may be required to meet on campus once or twice per semester.
5. Orientation Sessions
   Once or twice per semester.
6. Threaded Conferencing
   Once or twice a week.

V. **List of Techniques:** Timed On-line quizzes and tests. Class participation through chats and threaded discussions. Written assignments analyzing a variety of video posts related general chemistry concepts and demonstrations.

VI. **How to Evaluate Students for Achieved Outcomes:** Performance on timed-online quizzes and tests. Performance on class participation through threaded discussions. Performance on written assignments.

VII. **Additional Resources/Materials/Information:** Provide text alternatives for any non-text content; Make it easier for users to see and hear content including separating foreground from background; Make text content readable and understandable. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

VIII. **Audio Visual Library Materials:** NO

IX. **MIRAMAR**

X. **Distance Education Methods of Instruction:** 1. Fully Online

XI. **Other Distance Education Methods:** Video conferencing using tools such as Zoom, Skype or CCCConfer as assigned.

XII. **Type and frequency of contact may include, but is not limited to:**

1. Chat Rooms
   as assigned
2. E-mail
   weekly
3. Group Meetings
   as assigned
4. Individual Meetings
   as needed
5. Telephone Contact
   as needed
6. Threaded Conferencing
   at least three times during the term

transformations.

V. Course: MATH 96 Perform basic arithmetic operations with complex numbers.

VI. Course: MATH 96 Solve quadratic equations including those having complex number solutions.

VII. Course: MATH 96 Identify and graph conic sections.

VIII. Course: MATH 96 Solve absolute value inequalities and nonlinear inequalities in one variable.

IX. Course: MATH 96 Perform basic algebra with functions, determine whether a function is one-to-one and find the inverse of a one-to-one function.

X. Course: MATH 96 Use the properties of and relationship between exponential and logarithmic functions to solve a variety of application problems.

XI. Course: MATH 96 Determine the type and pattern of simple sequences, including arithmetic and geometric sequences, and use appropriate notation in expressing the closed form of the sequence.

XII. Course: MATH 96 Apply arithmetic and geometric sequences and their sums in solving related problems.

XIII. Course: MATH 96 Identify three-dimensional geometric figures and apply the appropriate surface area and volume formulas.

**SECTION III**

**COURSE DISTANCE EDUCATION INFORMATION**

I. **MESA**

II. **Distance Education Methods of Instruction:** 1. Partially online only

III. **Other Distance Education Methods:**

IV. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
   As needed.
   **Participant/s**: Faculty to Student/s
2. Discussion Board
   Once or twice a week.
   **Participant/s**: Faculty to Student/s , Among Students
3. Email/Message System
   As needed.
   **Participant/s**: Faculty to Student/s , Among Students
4. Field Trips
   May be required.
   **Participant/s**: Faculty to Student/s , Among Students
5. Group Meetings
   Students may be required to meet on campus once or twice per semester.
6. Synchronous or Asynchronous Video
   As assigned
   **Participant/s**: Faculty to Student/s , Among Students
7. Threaded Conferencing
   Once or twice a week.

V. **List of Techniques:** Examinations will be predominately in person with some online assessments and assignments. Class participation through chats and threaded discussions. Written assignments analyzing a variety of video posts related general chemistry concepts and demonstrations.

VI. **How to Evaluate Students for Achieved Outcomes:** Examinations will be predominately in person with some online assessments and assignments. Performance on class participation through threaded discussions. Performance on written assignments.

VII. **Additional Resources/Materials/Information:** SDCCD and DSPS personnel will provide all needed accommodations. DSPS will provide a student in an online classroom with the same level of support as an on-campus student. Provide text alternatives for any non-text content; Make it easier for users to see and hear content including separating foreground from background; Make text content readable and understandable. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

VIII. **Audio Visual Library Materials:** NO

IX. **MIRAMAR**

X. **Distance Education Methods of Instruction:** 1. Fully Online

XI. **Other Distance Education Methods:** Video conferencing using tools such as Zoom, Skype or CCCConfer as assigned.

XII. **Type and frequency of contact may include, but is not limited to:**

1. Chat Rooms
   as assigned

XIII. **List of Techniques:** Students will interact with each other and the instructor in ways that mirror the traditional classroom, only the delivery system will be altered. These methods include one-on-one communication with the instructor and other students via e-mail, the discussion board, the chat room, or live streaming broadcasting. In addition, students will participate in individual and group projects. Students will also demonstrate an understanding and integration of course concepts via research assignments, group projects, asynchronous class discussion, and/or other assignments.

XIV. **How to Evaluate Students for Achieved Outcomes:** Multiple measures will be used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, research reports, individual or group projects, and/or other assignments posted to the discussion board or other online collaboration tool.

XV. **Additional Resources/Materials/Information:** Additional materials and information, such as handouts, web links, and newspaper articles, may be provided electronically to supplement the course text(s). Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XVI. **Audio Visual Library Materials:** NO

XVII. **CITY**

XVIII. **Distance Education Methods of Instruction:** 1. Fully Online

XIX. **Other Distance Education Methods:**

XX. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
   weekly
2. Chat Rooms
   as assigned
3. Collaborative Web Documents
   as assigned
4. Conferencing
   as assigned
5. Discussion Board
   at least three times during the term
6. Email/Message System
   as needed
7. Field Trips
   as assigned
8. Group Meetings
   as assigned
9. Individual Meetings
   as needed
10. Individualized Assignment Feedback
    as assigned
11. Synchronous or Asynchronous Video
    as assigned
12. Telephone Contact
    as needed

XXI. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

XXII. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

XXIII. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XXIV. **Audio Visual Library Materials:** NO

**SECTION IV**

**COURSE STUDENT LEARNING OUTCOME(S)**

**CITY**

- Students will compare and contrast the principal theories of ionic and covalent bonding.
- Students will perform advanced unit conversion problems using dimensional analysis.

**MESA**

2. E-mail
   weekly
3. Group Meetings
   as assigned
4. Individual Meetings
   as needed
5. Telephone Contact
   as needed
6. Threaded Conferencing
   at least three times during the term

XIII. **List of Techniques:** Students will interact with each other and the instructor in ways that mirror the traditional classroom, only the delivery system will be altered. These methods include one-on-one communication with the instructor and other students via e-mail, the discussion board, the chat room, or live streaming broadcasting. In addition, students will participate in individual and group projects. Students will also demonstrate an understanding and integration of course concepts via research assignments, group projects, asynchronous class discussion, and/or other assignments.

XIV. **How to Evaluate Students for Achieved Outcomes:** Multiple measures will be used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, research reports, individual or group projects, and/or other assignments posted to the discussion board or other online collaboration tool.

XV. **Additional Resources/Materials/Information:** Additional materials and information, such as handouts, web links, and newspaper articles, may be provided electronically to supplement the course text(s). Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XVI. **Audio Visual Library Materials:** NO

XVII. **CITY**

XVIII. **Distance Education Methods of Instruction:** 1. Fully Online

XIX. **Other Distance Education Methods:**

XX. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
   weekly
2. Chat Rooms
   as assigned
3. Collaborative Web Documents
   as assigned
4. Conferencing
   as assigned
5. Discussion Board
   at least three times during the term
6. Email/Message System
   as needed
7. Field Trips
   as assigned
8. Group Meetings
   as assigned
9. Individual Meetings
   as needed
10. Individualized Assignment Feedback
    as assigned
11. Synchronous or Asynchronous Video
    as assigned
12. Telephone Contact
    as needed

XXI. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, or other tools. Students also demonstrate an understanding and integration of course concepts via research assignments, problem sets, group projects, asynchronous class discussion, and/or other assignments.

XXII. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board or other online collaboration tool.

XXIII. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure

- Use current theories to describe atoms and compounds.
- Describe and/or write structure. Correlate the relationships between structure and properties.

**MIRAMAR**

- After completing Chemistry 200, students will be proficient in the concepts and problem-solving techniques common to any first-semester general chemistry course as demonstrated by their performance on a standardized national exam.

**SECTION V**

**COURSE DATA ADMINISTRATION ELEMENTS**

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1905.00 Chemistry, General
**SAM Code:** E - Non Occupational
**Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).**
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):** Y = Not applicable
**Course Support Course Status (CB26):** N = Course is not a support course
**Major Restriction Code:** NONE

II. **Lect Units:** 3.00
**Total Units:** 3
**Lecture Hours Min:** 48.00 **Max:** 54.00
**Lab Hours Min:** 0.00 **Max:** 0.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 48.00 **Max:**54.00
**Outside-of-Class Hours Min:** 96.00 **Max:**108.00
**Total Student Learning Hours Min:** 144.00 **Max:** 162.00
**FTEF Lecture Min:** 0.2000 **Max:**
**FTEF Lab Min:** 0.0000 **Max:**
**FTEF Total Min:** 0.2000 **Max:**

III. **Last Time Pre/Co Requisite Update:** 05/06/2022

IV. **Last Outline Revision Date:** 11/10/2022

V. **CIC Approval:** 11/10/2022

VI. **BOT Approval:**

VII. **State Approval:**

VIII. **Revised State Approval:**

IX. **Course Approval Effective Date:** Fall 2024

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

compliance with the Americans with Disabilities Act (ADA).

XXIV. **Audio Visual Library Materials:** NO

**SECTION IV**

**COURSE STUDENT LEARNING OUTCOME(S)**

**CITY**

- Students will compare and contrast the principal theories of ionic and covalent bonding.
- Students will perform advanced unit conversion problems using dimensional analysis.

**MESA**

- Use current theories to describe atoms and compounds.
- Describe and/or write structure. Correlate the relationships between structure and properties.

**MIRAMAR**

- After completing Chemistry 200, students will be proficient in the concepts and problem-solving techniques common to any first-semester general chemistry course as demonstrated by their performance on a standardized national exam.

**SECTION V**

**COURSE DATA ADMINISTRATION ELEMENTS**

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1905.00 Chemistry, General
**SAM Code:** E - Non Occupational
**Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).**
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):** Y = Not applicable
**Course Support Course Status (CB26):** N = Course is not a support course
**Major Restriction Code:** NONE

II. **Lect Units:** 3.00
**Total Units:** 3
**Lecture Hours Min:** 48.00 **Max:** 54.00
**Lab Hours Min:** 0.00 **Max:** 0.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 48.00 **Max:**54.00
**Outside-of-Class Hours Min:** 96.00 **Max:**108.00
**Total Student Learning Hours Min:** 144.00 **Max:** 162.00
**FTEF Lecture Min:** 0.2000 **Max:**
**FTEF Lab Min:** 0.0000 **Max:**
**FTEF Total Min:** 0.2000 **Max:**

III. **Last Time Pre/Co Requisite Update:** 01/17/2023

IV. **Last Outline Revision Date:** 11/10/2022

V. **CIC Approval:**

VI. **BOT Approval:**

VII. **State Approval:**

VIII. **Revised State Approval:**

IX. **Course Approval Effective Date:**

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

View Printable Version

# Previous Report

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

**CITY , MESA AND MIRAMAR COLLEGES**

**Course Outline of Record:**
**Curriculum Proposal Report**

**SECTION I**

I. **Subject Area:** Child Development
II. **Course Number:** 160
III. **Course Title:** Observation and Assessment of Children
IV. **Disciplines (Instructor Minimum Qualifications):** Child Development/Early Childhood Education
V.
VI. **Family:**
VII. **Current Short Title:** Obser & Understanding Children **Proposed Short Title:** Observation and Assessment
VIII. **Course Is Active/Where?** CITY , MESA AND MIRAMAR
IX. **Originating Campus:** CITY
X. **Action Proposed:** Course Revision (May Include Activation)
XI. **Distance Education Proposed At:** Miramar and City
XII. **Proposal Originating Date:** 07/10/2017
XIII. **Proposed Start Semester:** Fall 2021
XIV. **Field Trip:** May be required
XV. **Grading Option:** Grade Only
XVI. **Current Short Description:** Observing and understanding young children's behavioral and growth processes.

**SECTION II**

**COURSE ENROLLMENT INFORMATION**

I. **Requisites:**
Limitation on Enrollment:: Health and Safety. TB clearance within the last year is required.
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:** Texts are latest editions

**COURSE ANALYSIS DATA**

I. **Reason for Proposed Action:** Parent participation requirement no longer in place. Revising course title, description, and content to reflect the focus of the course. Proposing for distance education City and Mesa colleges. (Course revision is for six year review.)
II. **How Does The Course Fit The College Mission?** 1. Transfer 2. Vocational/Occupational
III. **Current Transfer Options:**
IV. **Proposed College/District Purpose:** 1. Major Requirement - Certificate of Achievement 2. Major Requirement - Associate Degree
V. **Extraordinary Cost to the College:** None..
VI. **Library Resource Materials:** No new resources required.

**GENERAL EDUCATION ANALYSIS**

**REQUISITES ANALYSIS**

**SECTION III**

**COURSE DISTANCE EDUCATION INFORMATION**

# Current Report

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

**CITY , MESA AND MIRAMAR COLLEGES**

**Course Outline of Record:**
**Curriculum Proposal Report**

**SECTION I**

I. **Subject Area:** Child Development
II. **Course Number:** 160
III. **Course Title:** Observation and Assessment of Children
IV. **Disciplines (Instructor Minimum Qualifications):** Child Development/Early Childhood Education
V.
VI. **Family:**
VII. **Current Short Title:** Observation and Assessment
VIII. **Course Is Active/Where?** CITY , MESA AND MIRAMAR
IX. **Originating Campus:** CITY
X. **Action Proposed:** Course Deactivation (Not at any College)
XI. **Distance Education Proposed At:** Miramar and City
XII. **Proposal Originating Date:** 02/15/2023
XIII. **Proposed Start Semester:** Fall 2024
XIV. **Field Trip:** May be required
XV. **Grading Option:** Grade Only
XVI. **Current Short Description:** Observing and understanding young children's behavioral and growth processes.

**SECTION II**

**COURSE ENROLLMENT INFORMATION**

I. **Requisites:**
Limitation on Enrollment:: Health and Safety. TB clearance within the last year is required.
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:** Texts are latest editions

**COURSE ANALYSIS DATA**

I. **Reason for Proposed Action:** CHIL 160 content overlaps with the proposed CHIL 120 and needs to be deactivated in order for 120 to move forward.
II. **How Does The Course Fit The College Mission?** 1. Transfer 2. Vocational/Occupational
III. **Current Transfer Options:**
IV. **Proposed College/District Purpose:** 1. Major Requirement - Certificate of Achievement 2. Major Requirement - Associate Degree
V. **Extraordinary Cost to the College:** None..
VI. **Library Resource Materials:** No new resources required.

**GENERAL EDUCATION ANALYSIS**

**REQUISITES ANALYSIS**

**SECTION III**

**COURSE DISTANCE EDUCATION INFORMATION**

I. **MESA**
II. **Distance Education Methods of Instruction:** 1. Hybrid only
III. **Other Distance Education Methods:**
IV. **Type and frequency of contact may include, but is not limited to:**
1. Chat Rooms
Frequently
2. E-mail
Frequently
3. Telephone Contact
As needed
4. Threaded Conferencing
As needed
V. **List of Techniques:** Assignments and tests that will be used in the Distance Education course will be exactly the same as those in the traditional course. Students will submit all course work (tests and assignments) electronically to the instructor for grading.
VI. **How to Evaluate Students for Achieved Outcomes:** The evaluation methods will mirror the on-campus course as specified in the course outline. The feedback on assignments and tests will be submitted electronically to the student.
VII. **Additional Resources/Materials/Information:** SDCCD and DSPS personnel will provide all needed accommodations. DSPS will provide a student in an online classroom with the same level of support as an on-campus student Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
VIII. **Audio Visual Library Materials:** NO
IX. **MIRAMAR**
X. **Distance Education Methods of Instruction:** 1. Online-Emergency Only
XI. **Other Distance Education Methods:** Video observations of children aged two to five in a child care center setting are required for the laboratory portion of the course in accordance with guidance from the California Commission on Teacher Credentialing.
XII. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
weekly
2. Collaborative Web Documents
as assigned
3. Conferencing
as assigned
4. Discussion Board
at least three times during the term
5. Email/Message System
as needed
6. Group Meetings
as assigned
7. Individual Meetings
as needed
8. Individualized Assignment Feedback
as assigned
9. Synchronous or Asynchronous Video
video observations of children aged two to five in a child care center setting are required for the laboratory portion of the course
10. Telephone Contact
as needed
XIII. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, and synchronous video or in-person conferencing for mentoring purposes. For the laboratory portion of the course, students view videos of children aged two to five in a child care center setting and compose reflections, journal entries, or other writing assignments based on their observations.
XIV. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board, including objective observations of children, analyses of childrenâ€™s behavior and interactions, and proposed interactions to promote optimal development for individual children.
XV. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure

I. **MESA**
II. **Distance Education Methods of Instruction:** 1. Hybrid only
III. **Other Distance Education Methods:**
IV. **Type and frequency of contact may include, but is not limited to:**
1. Chat Rooms
Frequently
2. E-mail
Frequently
3. Telephone Contact
As needed
4. Threaded Conferencing
As needed
V. **List of Techniques:** Assignments and tests that will be used in the Distance Education course will be exactly the same as those in the traditional course. Students will submit all course work (tests and assignments) electronically to the instructor for grading.
VI. **How to Evaluate Students for Achieved Outcomes:** The evaluation methods will mirror the on-campus course as specified in the course outline. The feedback on assignments and tests will be submitted electronically to the student.
VII. **Additional Resources/Materials/Information:** SDCCD and DSPS personnel will provide all needed accommodations. DSPS will provide a student in an online classroom with the same level of support as an on-campus student Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
VIII. **Audio Visual Library Materials:** NO
IX. **MIRAMAR**
X. **Distance Education Methods of Instruction:** 1. Online-Emergency Only
XI. **Other Distance Education Methods:** Video observations of children aged two to five in a child care center setting are required for the laboratory portion of the course in accordance with guidance from the California Commission on Teacher Credentialing.
XII. **Type and frequency of contact may include, but is not limited to:**
1. Announcements
weekly
2. Collaborative Web Documents
as assigned
3. Conferencing
as assigned
4. Discussion Board
at least three times during the term
5. Email/Message System
as needed
6. Group Meetings
as assigned
7. Individual Meetings
as needed
8. Individualized Assignment Feedback
as assigned
9. Synchronous or Asynchronous Video
video observations of children aged two to five in a child care center setting are required for the laboratory portion of the course
10. Telephone Contact
as needed
XIII. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, and synchronous video or in-person conferencing for mentoring purposes. For the laboratory portion of the course, students view videos of children aged two to five in a child care center setting and compose reflections, journal entries, or other writing assignments based on their observations.
XIV. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board, including objective observations of children, analyses of childrenâ€™s behavior and interactions, and proposed interactions to promote optimal development for individual children.
XV. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure

compliance with the Americans with Disabilities Act (ADA).

XVI. **Audio Visual Library Materials:** NO

XVII. **CITY**

XVIII. **Distance Education Methods of Instruction:** 1. Fully Online

XIX. **Other Distance Education Methods:**

XX. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
   weekly
2. Collaborative Web Documents
   as assigned
3. Conferencing
   as assigned
4. Discussion Board
   at least three times per term
5. Email/Message System
   as needed
6. Field Trips
   as assigned
7. Group Meetings
   as assigned
8. Individualized Assignment Feedback
   as assigned
9. Synchronous or Asynchronous Video
   as assigned
10. Telephone Contact
    as needed

XXI. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, and synchronous video or in-person conferencing for mentoring purposes. Students are required to complete observations of childrenâ€™s behavior and interactions in approved settings, whether online or in-person.

XXII. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board, including objective observations of children, analyses of childrenâ€™s behavior and interactions, and proposed interactions to promote optimal development for individual children.

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XXIV. **Audio Visual Library Materials:** NO

**SECTION IV**

**COURSE STUDENT LEARNING OUTCOME(S)**

**CITY**

- The student will identify appropriate teacher responses for facilitating conflict resolution with children in a typical scenario.
- The student will identify objective and subjective observation statements.

**MESA**

- Describe and interpret the operating policies and procedures of the campus lab.
- Implement appropriate guidance techniques and practices with young children.

**MIRAMAR**

- SLO Recognize the role of observation in interpreting children's behavior. Measurement Method Be able to identify four reasons why it is important to observe children.

**SECTION V**

**COURSE DATA ADMINISTRATION ELEMENTS**

compliance with the Americans with Disabilities Act (ADA).

XVI. **Audio Visual Library Materials:** NO

XVII. **CITY**

XVIII. **Distance Education Methods of Instruction:** 1. Fully Online

XIX. **Other Distance Education Methods:**

XX. **Type and frequency of contact may include, but is not limited to:**

1. Announcements
   weekly
2. Collaborative Web Documents
   as assigned
3. Conferencing
   as assigned
4. Discussion Board
   at least three times per term
5. Email/Message System
   as needed
6. Field Trips
   as assigned
7. Group Meetings
   as assigned
8. Individualized Assignment Feedback
   as assigned
9. Synchronous or Asynchronous Video
   as assigned
10. Telephone Contact
    as needed

XXI. **List of Techniques:** Students engage in regular and effective interaction with each other and the instructor in ways that mirror the traditional classroom; only the delivery system is altered. These methods include one-on-one communication with the instructor and with other students via e-mail, the announcement system, the discussion board, and synchronous video or in-person conferencing for mentoring purposes. Students are required to complete observations of childrenâ€™s behavior and interactions in approved settings, whether online or in-person.

XXII. **How to Evaluate Students for Achieved Outcomes:** Multiple measures are used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, writing assignments, and/or group or individual projects posted to the discussion board, including objective observations of children, analyses of childrenâ€™s behavior and interactions, and proposed interactions to promote optimal development for individual children.

XXIII. **Additional Resources/Materials/Information:** Materials posted online are consistent with those required for campus-based class. SDCCD and DSPS personnel provide all needed accommodations. DSPS provide a student in an online classroom with the same level of support as an on-campus student. Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

XXIV. **Audio Visual Library Materials:** NO

**SECTION IV**

**COURSE STUDENT LEARNING OUTCOME(S)**

**CITY**

- The student will identify appropriate teacher responses for facilitating conflict resolution with children in a typical scenario.
- The student will identify objective and subjective observation statements.

**MESA**

- Describe and interpret the operating policies and procedures of the campus lab.
- Implement appropriate guidance techniques and practices with young children.

**MIRAMAR**

- SLO Recognize the role of observation in interpreting children's behavior. Measurement Method Be able to identify four reasons why it is important to observe children.

**SECTION V**

**COURSE DATA ADMINISTRATION ELEMENTS**

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1305.00 Child Development/Early Care and Education
**SAM Code:** C - Clearly Occupational
**Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).**
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):**
**Course Support Course Status (CB26):**
**Major Restriction Code:** NONE

II. **Lect Units:** 1.00
**Lab Units:** 1.00
**Total Units:** 2
**Lecture Hours Min:** 16.00 **Max:** 18.00
**Lab Hours Min:** 48.00 **Max:** 54.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 64.00 **Max:**72.00
**Outside-of-Class Hours Min:** 32.00 **Max:**36.00
**Total Student Learning Hours Min:** 96.00 **Max:** 108.00
**FTEF Lecture Min:** 0.0667 **Max:**
**FTEF Lab Min:** 0.2000 **Max:**
**FTEF Total Min:** 0.2667 **Max:**

III. **Last Time Pre/Co Requisite Update:** 07/10/2017

IV. **Last Outline Revision Date:** 05/14/2020

V. **CIC Approval:** 05/14/2020

VI. **BOT Approval:**

VII. **State Approval:**

VIII. **Revised State Approval:**

IX. **Course Approval Effective Date:** Fall 2021

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1305.00 Child Development/Early Care and Education
**SAM Code:** C - Clearly Occupational
**Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).**
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):**
**Course Support Course Status (CB26):**
**Major Restriction Code:** NONE

II. **Lect Units:** 1.00
**Lab Units:** 1.00
**Total Units:** 2
**Lecture Hours Min:** 16.00 **Max:** 18.00
**Lab Hours Min:** 48.00 **Max:** 54.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 64.00 **Max:**72.00
**Outside-of-Class Hours Min:** 32.00 **Max:**36.00
**Total Student Learning Hours Min:** 96.00 **Max:** 108.00
**FTEF Lecture Min:** 0.0667 **Max:**
**FTEF Lab Min:** 0.2000 **Max:**
**FTEF Total Min:** 0.2667 **Max:**

III. **Last Time Pre/Co Requisite Update:** 02/15/2023

IV. **Last Outline Revision Date:** 05/14/2020

V. **CIC Approval:**

VI. **BOT Approval:**

VII. **State Approval:**

VIII. **Revised State Approval:**

IX. **Course Approval Effective Date:**

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

CIC Approval:
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM:

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, AND MIRAMAR COLLEGES
# ASSOCIATE DEGREE COURSE OUTLINE

## SECTION I

**SUBJECT AREA AND COURSE NUMBER:** Child Development 162

**COURSE TITLE:**
Positive Child Guidance

**Units:**
3
Grade Only

**CATALOG COURSE DESCRIPTION:**

This course explores various behavior management techniques; interpersonal communication; and ideas and suggestions to assist caregivers in guiding a child's behavior. Students apply developmental, cultural, and communicative principles in combination with observations of real situations. The focus is on children from birth through age 10. This course partially fulfills the specialization requirements for the State of California Master Teacher Permit. It is intended for students who plan careers in early childhood and family support programs.

**REQUISITES:**

NONE

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU

**CID:**

**TOTAL LECTURE HOURS:**
48 - 54

**TOTAL LAB HOURS:**

**TOTAL CONTACT HOURS:**
48 - 54

**OUTSIDE-OF-CLASS HOURS:**
96 - 108

**TOTAL STUDENT LEARNING HOURS:**
144 - 162

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

1. Describe, in writing, the philosophy and procedures of various child care centers or settings and the

program's effect on a child's behavior management.
2. Identify and interpret discipline styles and methods that assist a caregiver in guiding a child's behavior.
3. Describe and contrast developmental principles significant in behavior management.
4. Describe and contrast behavior management techniques as applied to various situations and developmental levels of children.
5. Describe and demonstrate how interpersonal communication tools are used in guiding different child behavior patterns.
6. Appraise and evaluate developmental, environmental, cultural, and interpersonal communication factors that can affect behavior and effectiveness of guidance techniques.
7. Develop, in writing, a personal behavior management plan for a child between the ages of 0 and 10.

## SECTION II

### 1. COURSE OUTLINE AND SCOPE:

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

I. Introduction to positive child guidance in various situations
- A. Significance of child care center or setting philosophy on behavior management
- B. Program factors of the child care center or setting which affect a child's behavior
- C. Styles of discipline incorporated by adults guiding children
- D. Concepts of disciplinary methods
- E. Guidelines for observation and participation in child care centers or settings

II. Development principles in behavior management
- A. Infancy/toddler
  1. Bonding
  2. Attachment
  3. Autonomy
  4. Separation anxiety
- B. Early childhood
  1. Independence
  2. Negativism
  3. Language
- C. Middle childhood
  1. School achievement
  2. Skill development
  3. Self-esteem
- D. Peer and family relationships and cultural implications
- E. Stress and frustrations

III. Understanding and managing emotional factors which affect behavior
- A. Understanding anger in the adult and child
- B. Expressing feelings
- C. Preventing tantrums
- D. Managing of tantrums
- E. Balancing praise and criticism
- F. Building positive emotional environments
- G. Importance of stress management for adults and children
- H. Importance of maintaining mutual regard and respect for all

IV. The role of physiology in guiding behavior
- A. Nutrition
  1. Meal routines
  2. Effect of food on behavior
- B. Sleep
  1. Sleep time routines
  2. Cultural practices
  3. Developmental sleep needs

C. Sexuality
1. Developmental issues
2. Gender issues
3. Cultural implications

V. Environmental and cultural aspects of behavior management
A. Impact of environment and culture on behavior
B. Daily routines
1. Annoying habits
2. Bothersome behaviors
C. Sibling rivalry
D. Morals and manners

VI. Interpersonal communication as a tool in guiding behavior
A. Patterns and styles of communication
B. Understanding and applying proxemic communication
C. Creative ways to build self-esteem and communicate behavior expectations
D. Importance of choosing and being consistent in using key words
E. Roles and responsibilities of communicators in interpersonal interactions
F. Recognizing negative communication patterns
G. Recognizing cultural and environmental effects on communication and child guidance

VII. Discipline for special times and special children
A. Family crises
B. Family events and holidays
C. Children with special needs

VIII. Creating a behavior management plan
A. Environmental, developmental, and cultural factors
B. Behaviors to be corrected
C. Communication style to be emphasized

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. Required textbook(s).
II. Relevant articles in child development journals such as Young Children.
III. Collections of relevant articles such as Annual Editions of Early Childhood Education.
IV. Articles from family magazines such as Parents Magazine.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Journals of participation time during observations of child care settings.
II. Written critiques of child development programs and philosophies.
III. Written problem-solving exercises pertaining to a variety of behavior management situations for various developmental levels.
IV. Personal Behavior Management Plan.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Reading and writing assignments as specified in the course syllabus.
II. Observations involving behavior management in child care settings.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Describing, analyzing, and comparing various communication and behavior management styles of child care specialists.
II. Analyzing interactions between children and adults using theories of development and behavior.
III. Analyzing and comparing environmental and cultural factors which can affect behavior.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Objective examinations that test for definitions and major course concepts; philosophy and procedures of child care centers and settings; and concepts of communication involved with behavior management.
II. Writing assignments based on observations and readings related to child development such as a Personal Behavior Management Plan.
III. Supervised participation in child care settings.
IV. Class participation.

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Distance Education (Fully online)
* Lecture
* Lecture Discussion
* Other (Specify)
* A. In-class problem solving.
* B. Quiz and examination review performed in class.
* C. Demonstration and application of concepts in a child care setting.
* D. Guest speakers.

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**
1. Miller, Darla F. Positive Child Guidance, 8th ed. Cengage, 2016, ISBN: 9781305088993
2. Sears, William, et. al. The Baby Book, Revised Edition: Everything You Need to Know About Your Baby from Birth to Age Two, Revised ed. Little, Brown and Company, 2013, ISBN: 9780316198264

**MANUALS:**

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**

**ORIGINATOR:** Dawn DiMarzo
**ORIGINATION DATE:** 03/13/2019
**PROPOSAL ORIGINATOR:** Rebecca Collins
**CO-CONTRIBUTOR(S)**
**PROPOSAL DATE:** 02/17/2023

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**
**COURSE PROPOSAL IMPACT REPORT**

**COURSE TO BE PROPOSED:** CHIL 162
Positive Child Guidance

**ACTIVE/APPROVED COURSES IMPACTED:**

CHIL 162 Positive Child Guidance (29542)

**ACTIVE/APPROVED/PROPOSED PROGRAMS IMPACTED:**

( **Miramar** )
Child Development *Active*;
**Associate of Science Degree**

Recommended Electives (select from courses not already taken):

( **Miramar** )
Child Development Master Teacher *Approved*;
**Certificate of Achievement**

Guiding Young Children

( **Miramar** )
Child Development Site Supervisor *Approved*;
**Associate of Science Degree**

Recommended Electives (select from courses not already taken):

( **City** )
Child Development: Teacher *Active*;
**Certificate of Achievement**

Select one (1) course from the following:

( **Miramar** )
Early Education Entrepreneurship *Approved*;
**Associate of Science Degree**

Complete at least one of the following supplemental child development courses:

( **Miramar** )
Early Education Entrepreneurship *Approved*;
**Certificate of Achievement**

Complete at least one of the following supplemental child development courses:

( **Miramar** )
Family and Child Relations* *Active*;
**Certificate of Performance**

Select one course from:

( **Miramar** )
Family and Child Relations* *Pending*;
**Certificate of Performance**

Select one course from:

( **Miramar** )
Human Development Studies *Active*;
**Associate of Arts Degree**

Select at least 12 units from the following:

( **City** )
Liberal Arts and Sciences: Social and Behavioral Sciences *Active*;
**Associate of Arts Degree**

Major Courses

( **Miramar** )
Master Teacher *Active*;
**Certificate of Achievement**

Guiding Young Children

( **Miramar** )
Site Supervisor *Active*;
**Associate of Science Degree**

Recommended Electives (select from courses not already taken):

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

CITY AND MIRAMAR COLLEGES

**Course Outline of Record:**
**Curriculum Proposal Report**

## SECTION I

I. **Subject Area:** Child Development
II. **Course Number:** 162
III. **Course Title:** Positive Child Guidance
IV. **Disciplines (Instructor Minimum Qualifications):** Child Development/Early Childhood Education
V.
VI. **Family:**
VII. **Current Short Title:** Positive Child Guidance
VIII. **Course Is Active/Where?** CITY AND MIRAMAR
IX. **Originating Campus:** CITY
X. **Action Proposed:** Course Deactivation (Not at any College)
XI. **Distance Education Proposed At:** Miramar
XII. **Proposal Originating Date:** 02/17/2023
XIII. **Proposed Start Semester:** Fall 2024
XIV. **Field Trip:** May be required
XV. **Grading Option:** Grade Only
XVI. **Current Short Description:** Behavior management techniques to guide children's behavior.

## SECTION II

### COURSE ENROLLMENT INFORMATION

I. **Requisites:** NONE
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:**

### COURSE ANALYSIS DATA

I. **Reason for Proposed Action:** Deactivation necessary to create new CHIL 163 for CAP aligned curriculum
II. **How Does The Course Fit The College Mission?** 1. Transfer 2. Vocational/Occupational
III. **Current Transfer Options:**
IV. **Proposed College/District Purpose:** 1. Major Requirement - Associate Degree 2. Major Requirement - Certificate of Achievement 3. Major Requirement - Certificate of Performance
V. **Extraordinary Cost to the College:** N/A.
VI. **Library Resource Materials:** .

### GENERAL EDUCATION ANALYSIS

### REQUISITES ANALYSIS

## SECTION III

### COURSE DISTANCE EDUCATION INFORMATION

I. **MIRAMAR**
II. **Distance Education Methods of Instruction:** 1. On-line course
III. **Other Distance Education Methods:**
IV. **Type and frequency of contact may include, but is not limited to:**
1. Chat Rooms

as assigned
2. E-mail
weekly
3. Field Trips
as assigned
4. Individual Meetings
as needed
5. Orientation Sessions
as assigned
6. Telephone Contact
as needed
7. Threaded Conferencing
at least three times during the term with the instructor and with other students

V. **List of Techniques:** Students will interact with each other and the instructor in ways that mirror the traditional classroom, only the delivery system will be altered. These methods include one-on-one communication with the instructor and other students via e-mail, the discussion board, and the chat room. In addition, students will participate in individual and group projects and discussion via the discussion board and chat rooms. Research will be conducted via the web and/or local libraries, and students will be required to assess and evaluate the information they obtain. Students will also demonstrate an understanding and integration of course concepts via research assignments, group projects, asynchronous class discussion, and/or other assignments.

VI. **How to Evaluate Students for Achieved Outcomes:** Multiple measures will be used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, expository essays, research reports, and/or group presentations posted to the discussion board or other online collaboration tool.

VII. **Additional Resources/Materials/Information:** Additional materials and information, such as handouts, web links, and newspaper articles, may be provided electronically to supplement the course text(s). Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).

VIII. **Audio Visual Library Materials:** NO

## SECTION IV

## COURSE STUDENT LEARNING OUTCOME(S)

### CITY

- The student will identify objective language for observations of children.

### MIRAMAR

- Write a Behavior Management Plan including Observation, Implement and Evaluate and present orally implemented in a licensed preschool program.

## SECTION V

## COURSE DATA ADMINISTRATION ELEMENTS

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1305.00 Child Development/Early Care and Education
**SAM Code:** C - Clearly Occupational
**Course Prior to College Level (CB21):** Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):**
**Course Support Course Status (CB26):**
**Major Restriction Code:** NONE

II. **Lect Units:** 3.00
**Total Units:** 3

**Lecture Hours Min:** 48.00 **Max:** 54.00
**Lab Hours Min:** 0.00 **Max:** 0.00
**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 48.00 **Max:**54.00
**Outside-of-Class Hours Min:** 96.00 **Max:**108.00
**Total Student Learning Hours Min:** 144.00 **Max:** 162.00
**FTEF Lecture Min:** 0.2000 **Max:**
**FTEF Lab Min:** 0.0000 **Max:**
**FTEF Total Min:** 0.2000 **Max:**

III. **Last Time Pre/Co Requisite Update:**
IV. **Last Outline Revision Date:** 10/24/2019
V. **CIC Approval:**
VI. **BOT Approval:**
VII. **State Approval:**
VIII. **Revised State Approval:**
IX. **Course Approval Effective Date:**

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

View Printable Version

## Previous Report

CHIL 162

CIC Approval: 10/24/2019
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM: Fall 2020

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, AND MIRAMAR COLLEGES
## ASSOCIATE DEGREE COURSE OUTLINE

**SECTION I**

**SUBJECT AREA AND COURSE NUMBER:** Child Development 162

**COURSE TITLE:**
Positive Child Guidance

**Units:**
3
Grade Only

**CATALOG COURSE DESCRIPTION:**

This course explores various behavior management techniques; interpersonal communication; and ideas and suggestions to assist caregivers in guiding a child's behavior. Students apply developmental, cultural, and communicative principles in combination with observations of real situations. The focus is on children from birth through age 10. This course partially fulfills the specialization requirements for the State of California Master Teacher Permit. It is intended for students who plan careers in early childhood and family support programs.

**REQUISITES:**

NONE

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU

**CID:**

**TOTAL LECTURE HOURS:**
48 - 54

**TOTAL LAB HOURS:**

**TOTAL CONTACT HOURS:**
48 - 54

**OUTSIDE-OF-CLASS HOURS:**
96 - 108

**TOTAL STUDENT LEARNING HOURS:**
144 - 162

**STUDENT LEARNING OBJECTIVES:**
Upon successful completion of the course the student will be able to:

1. Describe, in writing, the philosophy and procedures of various child care centers or settings and the program's effect on a child's behavior management.
2. Identify and interpret discipline styles and methods that assist a caregiver in guiding a child's behavior.
3. Describe and contrast developmental principles significant in behavior management.
4. Describe and contrast behavior management techniques as applied to various situations and developmental levels of children.
5. Describe and demonstrate how interpersonal communication tools are used in guiding different child behavior patterns.
6. Appraise and evaluate developmental, environmental, cultural, and interpersonal communication factors that can

## Current Report

CHIL 162

CIC Approval:
BOT APPROVAL:
STATE APPROVAL:
EFFECTIVE TERM:

# SAN DIEGO COMMUNITY COLLEGE DISTRICT
# CITY, AND MIRAMAR COLLEGES
## ASSOCIATE DEGREE COURSE OUTLINE

**SECTION I**

**SUBJECT AREA AND COURSE NUMBER:** Child Development 162

**COURSE TITLE:**
Positive Child Guidance

**Units:**
3
Grade Only

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**REQUISITES:**

NONE

**FIELD TRIP REQUIREMENTS:**
May be required

**TRANSFER APPLICABILITY:**
Associate Degree Credit & transfer to CSU

**CID:**

**TOTAL LECTURE HOURS:**
48 - 54

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6. Appraise and evaluate developmental, environmental, cultural, and interpersonal communication factors that can affect behavior and effectiveness of guidance techniques.
7. Develop, in writing, a personal behavior management plan for a child between the ages of 0 and 10.

affect behavior and effectiveness of guidance techniques.
7. Develop, in writing, a personal behavior management plan for a child between the ages of 0 and 10.

**SECTION II**

**1. COURSE OUTLINE AND SCOPE:**

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

I. Introduction to positive child guidance in various situations
  A. Significance of child care center or setting philosophy on behavior management
  B. Program factors of the child care center or setting which affect a child's behavior
  C. Styles of discipline incorporated by adults guiding children
  D. Concepts of disciplinary methods
  E. Guidelines for observation and participation in child care centers or settings
II. Development principles in behavior management
  A. Infancy/toddler
    1. Bonding
    2. Attachment
    3. Autonomy
    4. Separation anxiety
  B. Early childhood
    1. Independence
    2. Negativism
    3. Language
  C. Middle childhood
    1. School achievement
    2. Skill development
    3. Self-esteem
  D. Peer and family relationships and cultural implications
  E. Stress and frustrations
III. Understanding and managing emotional factors which affect behavior
  A. Understanding anger in the adult and child
  B. Expressing feelings
  C. Preventing tantrums
  D. Managing of tantrums
  E. Balancing praise and criticism
  F. Building positive emotional environments
  G. Importance of stress management for adults and children
  H. Importance of maintaining mutual regard and respect for all
IV. The role of physiology in guiding behavior
  A. Nutrition
    1. Meal routines
    2. Effect of food on behavior
  B. Sleep
    1. Sleep time routines
    2. Cultural practices
    3. Developmental sleep needs
  C. Sexuality
    1. Developmental issues
    2. Gender issues
    3. Cultural implications
V. Environmental and cultural aspects of behavior management
  A. Impact of environment and culture on behavior
  B. Daily routines
    1. Annoying habits
    2. Bothersome behaviors
  C. Sibling rivalry
  D. Morals and manners
VI. Interpersonal communication as a tool in guiding behavior
  A. Patterns and styles of communication
  B. Understanding and applying proxemic communication
  C. Creative ways to build self-esteem and communicate behavior expectations
  D. Importance of choosing and being consistent in using key words
  E. Roles and responsibilities of communicators in interpersonal interactions
  F. Recognizing negative communication patterns
  G. Recognizing cultural and environmental effects on communication and child guidance
VII. Discipline for special times and special children
  A. Family crises
  B. Family events and holidays

**SECTION II**

**1. COURSE OUTLINE AND SCOPE:**

A. **Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

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  E. Balancing praise and criticism
  F. Building positive emotional environments
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VII. Discipline for special times and special children
  A. Family crises
  B. Family events and holidays
  C. Children with special needs

C. Children with special needs
VIII. Creating a behavior management plan
A. Environmental developmental and cultural factors
B. Behaviors to be corrected
C. Communication style to be emphasized

B. **Reading Assignments:**
Reading assignments are required and may include, but are not limited to, the following:

I. Required textbook(s).
II. Relevant articles in child development journals such as Young Children.
III. Collections of relevant articles such as Annual Editions of Early Childhood Education.
IV. Articles from family magazines such as Parents Magazine.

C. **Writing Assignments:**
Writing assignments are required and may include, but are not limited to, the following:

I. Journals of participation time during observations of child care settings.
II. Written critiques of child development programs and philosophies.
III. Written problem-solving exercises pertaining to a variety of behavior management situations for various developmental levels.
IV. Personal Behavior Management Plan.

D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Reading and writing assignments as specified in the course syllabus.
II. Observations involving behavior management in child care settings.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Describing, analyzing, and comparing various communication and behavior management styles of child care specialists.
II. Analyzing interactions between children and adults using theories of development and behavior.
III. Analyzing and comparing environmental and cultural factors which can affect behavior.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Objective examinations that test for definitions and major course concepts; philosophy and procedures of child care centers and settings; and concepts of communication involved with behavior management.
II. Writing assignments based on observations and readings related to child development such as a Personal Behavior Management Plan.
III. Supervised participation in child care settings.
IV. Class participation.

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Distance Education (Fully online)
* Lecture
* Lecture Discussion
* Other (Specify)
* A. In-class problem solving.
* B. Quiz and examination review performed in class.
* C. Demonstration and application of concepts in a child care setting.
* D. Guest speakers.

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**

VIII. Creating a behavior management plan
A. Environmental developmental and cultural factors
B. Behaviors to be corrected
C. Communication style to be emphasized

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Reading assignments are required and may include, but are not limited to, the following:

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D. **Appropriate Outside Assignments:**
Outside assignments may include, but are not limited to, the following:

I. Reading and writing assignments as specified in the course syllabus.
II. Observations involving behavior management in child care settings.

E. **Appropriate Assignments that Demonstrate Critical Thinking:**
Critical thinking assignments are required and may include, but are not limited to, the following:

I. Describing, analyzing, and comparing various communication and behavior management styles of child care specialists.
II. Analyzing interactions between children and adults using theories of development and behavior.
III. Analyzing and comparing environmental and cultural factors which can affect behavior.

**2. METHODS OF EVALUATION:**

A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

I. Objective examinations that test for definitions and major course concepts; philosophy and procedures of child care centers and settings; and concepts of communication involved with behavior management.
II. Writing assignments based on observations and readings related to child development such as a Personal Behavior Management Plan.
III. Supervised participation in child care settings.
IV. Class participation.

**3. METHODS OF INSTRUCTION:**

Methods of instruction may include, but are not limited to, the following:

* Audio-Visual
* Distance Education (Fully online)
* Lecture
* Lecture Discussion
* Other (Specify)
* A. In-class problem solving.
* B. Quiz and examination review performed in class.
* C. Demonstration and application of concepts in a child care setting.
* D. Guest speakers.

**4. REQUIRED TEXTS AND SUPPLIES:**
Textbooks may include, but are not limited to:

**TEXTBOOKS:**
1. Miller, Darla F. Positive Child Guidance, 8th ed. Cengage, 2016, ISBN: 9781305088993
2. Sears, William, et. al. The Baby Book, Revised Edition: Everything You Need to Know About Your Baby from Birth to Age Two, Revised ed. Little, Brown and Company, 2013, ISBN: 9780316198264

1. Miller, Darla F. Positive Child Guidance, 8th ed. Cengage, 2016, ISBN: 9781305088993
2. Sears, William, et. al. The Baby Book, Revised Edition: Everything You Need to Know About Your Baby from Birth to Age Two, Revised ed. Little, Brown and Company, 2013, ISBN: 9780316198264

**MANUALS:**

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**

**ORIGINATOR:** Dawn DiMarzo

**CO-CONTRIBUTOR(S)** Duane Short
**DATE:** 03/13/2019

Status: Active

Date Printed: 03/9/2023

**MANUALS:**

**PERIODICALS:**

**SOFTWARE:**

**SUPPLIES:**

**ORIGINATOR:** Dawn DiMarzo
**ORIGINATION DATE:** 03/13/2019
**PROPOSAL ORIGINATOR:** Rebecca Collins
**CO-CONTRIBUTOR(S)**
**PROPOSAL DATE:** 02/17/2023

Status: Launched

Date Printed: 03/9/2023

View Printable Version

# Previous Report

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

**CITY AND MIRAMAR COLLEGES**

**Course Outline of Record:**
**Curriculum Proposal Report**

**SECTION I**

I. **Subject Area:** Child Development
II. **Course Number:** 162
III. **Course Title:** Positive Child Guidance
IV. **Disciplines (Instructor Minimum Qualifications):** Child Development/Early Childhood Education
V.
VI. **Family:**
VII. **Current Short Title:** Observing/Guiding Child Behav **Proposed Short Title:** Positive Child Guidance
VIII. **Course Is Active/Where?** CITY AND MIRAMAR
IX. **Originating Campus:** MIRAMAR
X. **Action Proposed:** Course Revision (May Include Activation)
XI. **Distance Education Proposed At:** Miramar
XII. **Proposal Originating Date:** 03/13/2019
XIII. **Proposed Start Semester:** Fall 2020
XIV. **Field Trip:** May be required
XV. **Grading Option:** Grade Only
XVI. **Current Short Description:** Behavior management techniques to guide children's behavior.

**SECTION II**

**COURSE ENROLLMENT INFORMATION**

I. **Requisites:** NONE
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:**

**COURSE ANALYSIS DATA**

I. **Reason for Proposed Action:** Six year review including title change from "Observing and Guiding Child Behavior" to "Positive Child Guidance"; update to distance education contact section; updates to editions of example textbooks; and revalidation of entry skills. (Course revision is for six year review.)
II. **How Does The Course Fit The College Mission?** 1. Transfer 2. Vocational/Occupational
III. **Current Transfer Options:**
IV. **Proposed College/District Purpose:** 1. Major Requirement - Associate Degree 2. Major Requirement - Certificate of Achievement 3. Major Requirement - Certificate of Performance
V. **Extraordinary Cost to the College:** N/A.
VI. **Library Resource Materials:** .

**GENERAL EDUCATION ANALYSIS**

**REQUISITES ANALYSIS**

**SECTION III**

**COURSE DISTANCE EDUCATION INFORMATION**

# Current Report

**SAN DIEGO COMMUNITY COLLEGE DISTRICT**

**CITY AND MIRAMAR COLLEGES**

**Course Outline of Record:**
**Curriculum Proposal Report**

**SECTION I**

I. **Subject Area:** Child Development
II. **Course Number:** 162
III. **Course Title:** Positive Child Guidance
IV. **Disciplines (Instructor Minimum Qualifications):** Child Development/Early Childhood Education
V.
VI. **Family:**
VII. **Current Short Title:** Positive Child Guidance
VIII. **Course Is Active/Where?** CITY AND MIRAMAR
IX. **Originating Campus:** CITY
X. **Action Proposed:** Course Deactivation (Not at any College)
XI. **Distance Education Proposed At:** Miramar
XII. **Proposal Originating Date:** 02/17/2023
XIII. **Proposed Start Semester:** Fall 2024
XIV. **Field Trip:** May be required
XV. **Grading Option:** Grade Only
XVI. **Current Short Description:** Behavior management techniques to guide children's behavior.

**SECTION II**

**COURSE ENROLLMENT INFORMATION**

I. **Requisites:** NONE
II. **Current Degree Applicability:** Associate Degree Credit & transfer to CSU
III. **Current Basic Skills Designation:** N - Not a Basic Skills Course
IV. **Repeatability:** Course may be taken 1 time(s)
V. **Course Equivalency:** No
VI. **Additional Information:**
VII. **Additional Textbook Information:**

**COURSE ANALYSIS DATA**

I. **Reason for Proposed Action:** Deactivation necessary to create new CHIL 163 for CAP aligned curriculum
II. **How Does The Course Fit The College Mission?** 1. Transfer 2. Vocational/Occupational
III. **Current Transfer Options:**
IV. **Proposed College/District Purpose:** 1. Major Requirement - Associate Degree 2. Major Requirement - Certificate of Achievement 3. Major Requirement - Certificate of Performance
V. **Extraordinary Cost to the College:** N/A.
VI. **Library Resource Materials:** .

**GENERAL EDUCATION ANALYSIS**

**REQUISITES ANALYSIS**

**SECTION III**

**COURSE DISTANCE EDUCATION INFORMATION**

I. **MIRAMAR**
II. **Distance Education Methods of Instruction:** 1. On-line course
III. **Other Distance Education Methods:**
IV. **Type and frequency of contact may include, but is not limited to:**
1. Chat Rooms
as assigned
2. E-mail
weekly
3. Field Trips
as assigned
4. Individual Meetings
as needed
5. Orientation Sessions
as assigned
6. Telephone Contact
as needed
7. Threaded Conferencing
at least three times during the term with the instructor and with other students

V. **List of Techniques:** Students will interact with each other and the instructor in ways that mirror the traditional classroom, only the delivery system will be altered. These methods include one-on-one communication with the instructor and other students via e-mail, the discussion board, and the chat room. In addition, students will participate in individual and group projects and discussion via the discussion board and chat rooms. Research will be conducted via the web and/or local libraries, and students will be required to assess and evaluate the information they obtain. Students will also demonstrate an understanding and integration of course concepts via research assignments, group projects, asynchronous class discussion, and/or other assignments.
VI. **How to Evaluate Students for Achieved Outcomes:** Multiple measures will be used to assess student learning objectives. These include performance on objective examinations administered via the assessment tool, expository essays, research reports, and/or group presentations posted to the discussion board or other online collaboration tool.
VII. **Additional Resources/Materials/Information:** Additional materials and information, such as handouts, web links, and newspaper articles, may be provided electronically to supplement the course text(s). Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
VIII. **Audio Visual Library Materials:** NO

## SECTION IV

## COURSE STUDENT LEARNING OUTCOME(S)

### CITY

- The student will identify objective language for observations of children.

### MIRAMAR

- Write a Behavior Management Plan including Observation, Implement and Evaluate and present orally implemented in a licensed preschool program.

## SECTION V

## COURSE DATA ADMINISTRATION ELEMENTS

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1305.00 Child Development/Early Care and Education
**SAM Code:** C - Clearly Occupational
**Course Prior to College Level (CB21): Y - Not applicable. Level of course is not one of the levels listed above, may be above level A (transferable) or below level C (more than 3 levels below transfer level).**
**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):**
**Course Support Course Status (CB26):**
**Major Restriction Code:** NONE
II. **Lect Units:** 3.00
**Total Units:** 3
**Lecture Hours Min:** 48.00 **Max:** 54.00
**Lab Hours Min:** 0.00 **Max:** 0.00

I. **MIRAMAR**
II. **Distance Education Methods of Instruction:** 1. On-line course
III. **Other Distance Education Methods:**
IV. **Type and frequency of contact may include, but is not limited to:**
1. Chat Rooms
as assigned
2. E-mail
weekly
3. Field Trips
as assigned
4. Individual Meetings
as needed
5. Orientation Sessions
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6. Telephone Contact
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at least three times during the term with the instructor and with other students

V. **List of Techniques:** Students will interact with each other and the instructor in ways that mirror the traditional classroom, only the delivery system will be altered. These methods include one-on-one communication with the instructor and other students via e-mail, the discussion board, and the chat room. In addition, students will participate in individual and group projects and discussion via the discussion board and chat rooms. Research will be conducted via the web and/or local libraries, and students will be required to assess and evaluate the information they obtain. Students will also demonstrate an understanding and integration of course concepts via research assignments, group projects, asynchronous class discussion, and/or other assignments.
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VII. **Additional Resources/Materials/Information:** Additional materials and information, such as handouts, web links, and newspaper articles, may be provided electronically to supplement the course text(s). Distance education techniques used in this course will be accessible to individuals with disabilities (Sections 504 and 508 of the Rehabilitation Act). Requests for technology accommodations will be met by working with the Adaptive Technology Specialist to ensure compliance with the Americans with Disabilities Act (ADA).
VIII. **Audio Visual Library Materials:** NO

SECTION IV

COURSE STUDENT LEARNING OUTCOME(S)

CITY

- The student will identify objective language for observations of children.

MIRAMAR

- Write a Behavior Management Plan including Observation, Implement and Evaluate and present orally implemented in a licensed preschool program.

SECTION V

COURSE DATA ADMINISTRATION ELEMENTS

I. **Codes:**
**California Classification:** (Y Credit Course)
**TOP Code:** 1305.00 Child Development/Early Care and Education
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**Funding Agency Category (CB23):** Not Applicable (funding not used to develop course)
**Course Program Status (CB24):** Program-applicable
**Course Gen Education Status (CB25):**
**Course Support Course Status (CB26):**
**Major Restriction Code:** NONE
II. **Lect Units:** 3.00
**Total Units:** 3
**Lecture Hours Min:** 48.00 **Max:** 54.00
**Lab Hours Min:** 0.00 **Max:** 0.00

**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 48.00 **Max:**54.00
**Outside-of-Class Hours Min:** 96.00 **Max:**108.00
**Total Student Learning Hours Min:** 144.00 **Max:** 162.00
**FTEF Lecture Min:** 0.2000 **Max:**
**FTEF Lab Min:** 0.0000 **Max:**
**FTEF Total Min:** 0.2000 **Max:**

III. **Last Time Pre/Co Requisite Update:**
IV. **Last Outline Revision Date:** 10/24/2019
V. **CIC Approval:** 10/24/2019
VI. **BOT Approval:**
VII. **State Approval:**
VIII. **Revised State Approval:**
IX. **Course Approval Effective Date:** Fall 2020

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**

**Other Hours Min:** 0.00 **Max:**0.00
**Total Contact Hours Min:** 48.00 **Max:**54.00
**Outside-of-Class Hours Min:** 96.00 **Max:**108.00
**Total Student Learning Hours Min:** 144.00 **Max:** 162.00
**FTEF Lecture Min:** 0.2000 **Max:**
**FTEF Lab Min:** 0.0000 **Max:**
**FTEF Total Min:** 0.2000 **Max:**

III. **Last Time Pre/Co Requisite Update:**
IV. **Last Outline Revision Date:** 10/24/2019
V. **CIC Approval:**
VI. **BOT Approval:**
VII. **State Approval:**
VIII. **Revised State Approval:**
IX. **Course Approval Effective Date:**

**SECTION VI**

**CREDIT FOR PRIOR LEARNING**