

# Course SLOs aligned with Program SLOs

## San Mateo CCCD

### CAN Institutional SLOs

**Select, evaluate, and use information to investigate a point of view, support a conclusion, or engage in problem solving.**

#### CAN Dept - Chemistry

CAN CHEM 235 - Organic Chemistry II

##### Course Outcomes:

- \* Acid-base Strength - Predict and justify the relative acid strength and the relative basicity of a variety of organic acids and bases based on molecular structure, inductive effects and resonance effects. (Created By CAN Dept - Chemistry)
- \* Organic Reactions - Carry out a variety of organic chemistry reactions such as electrophilic aromatic substitution reactions, aldol condensation reactions, ester saponification reactions, etc. (Created By CAN Dept - Chemistry)
- \* Separation Scheme - Formulate a separation and purification scheme for a given multicomponent mixture of organic compounds. (Created By CAN Dept - Chemistry)
- \* Synthetic Methods - Apply a variety of synthetic methods to identify the most appropriate synthetic route to obtain given organic molecules. (Created By CAN Dept - Chemistry)

CAN CHEM 238 - Organic Chemistry Lab II

##### Course Outcomes:

- \* Separation Scheme - Formulate a separation and purification scheme for a given multicomponent mixture of organic compounds. (Created By CAN Dept - Chemistry)

**Produce, combine, or synthesize ideas in creative ways within or across disciplines.**

No Course Outcomes related to this ISLO.

**Use language to effectively convey an idea or a set of facts, including the accurate use of source material and evidence according to institutional and discipline standards.**

#### CAN Dept - Chemistry

CAN CHEM 192 - Elementary Chemistry

##### Course Outcomes:

- \* Density - The student will understand the concept of density. (Created By CAN Dept - Chemistry)
- \* Matter - The student will understand the three states of matter as well as the difference between a pure substance and a mixture. (Created By CAN Dept - Chemistry)

**Understand and interpret various points of view that emerge from a diverse world of peoples and cultures.**

No Course Outcomes related to this ISLO.

**Represent complex data in various mathematical forms (e.g., equations, graphs, diagrams, tables, and words) and analyze these data to draw appropriate conclusions.**

#### CAN Dept - Chemistry

CAN CHEM 192 - Elementary Chemistry

##### Course Outcomes:

- \* Equations - The student will be able to complete, balance, and apply chemical equations. (Created By CAN Dept - Chemistry)

CAN CHEM 220 - General Chemistry II

##### Course Outcomes:

- \* Gibbs Equation - Using the Gibbs equation, calculate the free energy change,  $\Delta G$ , from enthalpy,  $\Delta H$ , and entropy,  $\Delta S$ , changes. (Created By CAN Dept - Chemistry)

CAN CHEM 235 - Organic Chemistry II

##### Course Outcomes:

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- \* Separation Scheme - Formulate a separation and purification scheme for a given multicomponent mixture of organic compounds. (Created By CAN Dept - Chemistry)

*Course Outcomes:*

- \* Separation Scheme - Formulate a separation and purification scheme for a given multicomponent mixture of organic compounds.  
(Created By CAN Dept - Chemistry)