

College of the Sequoias (in middle)

OUTCOMES:

Course Objectives

The main concepts for this course will ask students to...

1. recognize basic terms and concepts related to fire behavior and chemistry.
2. describe fire suppression agents and their properties.
3. compare and contrast methods and techniques of fire extinguishment.

Institutional Outcomes

Locate, evaluate, and use information from a variety of sources to take action or make a decision.

1. Communicate effectively for a given purpose within the specific context of a communication event.
2. Assignments

TEXTS AND SUPPLIES:

Student Learning Outcomes

Given identify physical properties of the three states of matter and be able to differentiate between matter and energy., students will be able to .

- A. Problem solving assignments or activities
- B. Multiple choice tests
- C. Problem solving quizzes or exams

Given categorize the components of fire and describe the terminology, definitions, and terms associated with fire chemistry., students will be able to .

- A. Problem solving assignments or activities
- B. Written essays or extended papers
- C. Multiple choice tests
- D. Problem solving quizzes or exams

Given describe fire suppression agents and their properties., students will be able to .

- A. Problem solving assignments or activities
- B. Written essays or extended papers
- C. Multiple choice tests
- D. Problem solving quizzes or exams

Given compare and contrast methods and techniques of fire extinguishment., students will be able to .

- A. Problem solving assignments or activities
- B. Multiple choice tests
- C. Oral presentations
- D. Problem solving quizzes or exams

Given recognize basic terms and concepts related to fire behavior and chemistry., students will be able to .

- A. Written essays or extended papers
- B. Multiple choice tests
- C. Problem solving quizzes or exams

Fullerton College (beginning)

II. ENTRY LEVEL SKILLS AND KNOWLEDGE

III. STUDENT LEARNING OUTCOMES:

1. **Outcome:** Upon successful completion of NUTR 210 F Human Nutrition, the student will be able to differentiate among dietary choices and identify choices that reflect the current Dietary Guidelines for Americans.
2. **Outcome:** Upon successful completion of NUTR 210 F Human Nutrition, the student will be able to explain nutrient needs during the various stages of the human life cycle.
3. **Outcome:** Upon successful completion of NUTR 210 F Human Nutrition, the student will be able to explain how diet and lifestyle choices impact health and quality of life.
4. **Outcome:** Upon successful completion of NUTR 210 F Human Nutrition, the student will be able to evaluate the validity of nutrition-related claims in the media and Internet.

Santa Monica College (last item)

VIII. Student Learning Outcomes

1. Given appropriate tools the student will use and give examples of proper sanitation and disinfection techniques. Assessed by: In class demonstration according to state board guidelines
2. Explain and defend the difference between the physical and chemical changes, giving examples of each relating to our field of study. Assessed by: In class demonstration according to state board guidelines
3. Define the diagram of the ph scale and explain the logarithmic scale. Assessed by: In class demonstration according to state board guidelines
4. Students will exhibit strong academic behavior as assessed by the College Honor Code of Conduct on all assignments and tests both written and practical

Fresno City College (last item)

List a minimum of 1 to a maximum of 6 expected Student Learning Outcomes (SLOs):

Upon successful completion of the course, what should the student be able to do?

1. Explain the role of biological molecules in cellular metabolism.
2. Relate the structure of organelles and the cytoskeleton to cellular processes.
3. Apply the principles of genetics as they relate to the development and maintenance of an individual.
4. Describe the process of molecular evolution as it relates to interactions between organisms and their environment.
5. Apply the scientific method and utilize the tools of science to obtain and interpret data.

Moorpark (beginning. Course objectives are SLO's)

II. COURSE OBJECTIVES

Upon successful completion of the course, a student will be able to:

Methods of evaluation will be

consistent with, but not limited by, the following types or examples.

- | | | |
|---|--|---|
| 1 | assemble and perform experiments in basic physics, chemistry, and astronomy, following instructions in the laboratory manual. | Written tests or quizzes before and/or after the experiment. Completion of informal or formal laboratory reports. |
| 2 | measure and record the data, including estimated uncertainty, using appropriate units. | Written tests or quizzes before and/or after the experiment. Completion of informal or formal laboratory reports. |
| 3 | reduce and analyze data, calculate experimental uncertainties, produce and analyze graphs, summarize the experiment and its results using an appropriate technical writing style. | Written tests or quizzes before and/or after the experiment. Completion of informal or formal laboratory reports. |
| 4 | critically evaluate the experimental results and procedures using accepted values and other relevant information, and draw conclusions regarding the efficacy of the experimental procedure. | Written tests or quizzes before and/or after the experiment. Completion of informal or formal laboratory reports. |
| 5 | suggest changes to the experimental procedure which, if implemented, could reduce the experimental uncertainty and/or error. | Written tests or quizzes before and/or after the experiment. Completion of informal or formal laboratory reports. |
| 6 | suggest practical applications for the values measured, conclusions reached, or methods utilized in the experiment. | Written tests or quizzes before and/or after the experiment. Completion of informal or formal laboratory reports. |

III. COURSE CONTENT

Estimated %	Topic	Learning Outcomes
Lecture (must total 100%)		
Lab (must total 100%)		
7.00%	Reaction Time - Measurement systems - Uncertainty and significant figures - Scientific Notation - Conversion factors, - Dimensional analysis - Percent concepts	1, 2, 3, 4, 5, 6
7.00%	How High Is It - Studying motion of objects as related through the concepts of displacement, position, velocity, speed, and acceleration - Proper interpretation of speed vs. time graphs and distance vs. time graphs	1, 2, 3, 4, 5, 6
7.00%	Right On Target - Studying motion of objects as related through the concepts of	1, 2, 3, 4, 5, 6

	displacement, position, velocity, speed, and acceleration	
	- Proper interpretation of speed vs. time graphs and distance vs. time graphs	
	- Explain how action and reaction forces are related to each other	
7.00%	Mechanical Advantage	1, 2, 3, 4, 5, 6
	- Studying the relationship between work, net force, and mechanical energy	
7.00%	Work and Mechanical Energy	1, 2, 3, 4, 5, 6
	- Forms of energy including thermal, nuclear, electric, magnetic, chemical, and solar	
7.00%	Staying Afloat	1, 2, 3, 4, 5, 6
	- Analyzing density of various materials	
	- Explain how action and reaction forces of buoyancy interact	
7.00%	Hot Stuff	1, 2, 3, 4, 5, 6
	- Phases of matter and associated phase change	
	- Nature of heat transfer (radiation, convection, and conduction) and thermal energy	
	- Conservation of energy and conversion from one form to another	
7.00%	An Electrifying Experience (part 1)	1, 2, 3, 4, 5, 6
	- Demonstrate electric charge and how it's transferred in a circuit	
	- Distinguish electric current, resistance and (AC and DC) voltage	
7.00%	An Electrifying Experience (part 2)	1, 2, 3, 4, 5, 6
	- Measuring resistances, voltages, and currents	
	-- in parallel circuits	
	-- in series circuits	
	-- in combination	
7.00%	Model Rockets	1, 2, 3, 4, 5, 6
	- Explain concepts of momentum and forces on rocket flight	
	- Describe the flight of rocket and the chemicals used as a propellant	
7.00%	Sound	1, 2, 3, 4, 5, 6
	- Describe the differences between transverse and longitudinal waves	
	- Analyze the properties of sound and it's relationship between frequency, wavelength, and velocity	
	- Evaluate the relationship between sound intensity and decibel level	
7.00%	The Speed of Sound and the Speed of Light	1, 2, 3, 4, 5, 6
	- Summarizing the electromagnetic spectrum	
	- Sources of laser light and their interactions with other matter	
8.00%	Good Chemistry	1, 2, 3, 4, 5, 6
	- Classify matter as elements, mixtures, compounds	
	- Describe the chemical properties of each	
	- Examine during chemical reactions the energy changes, chemical reactivity, and chemical bonding	
8.00%	Chemical Mystery	1, 2, 3, 4, 5, 6
	- Correctly analyzing the chemical composition of various unknowns	
	- Use the results to determine the types of unknowns	