

**California State University, San Marcos General Education Program
GENERAL EDUCATION NEW COURSE CERTIFICATION REQUEST**

• AREA B1: Physical Science – No Lab Component
See GE Handbook for information on each section of this form

ABSTRACT

Course Abbreviation and Number: CHEM 101		Course Title: Preparatory Chemistry	
Number of Units: <u> 3 </u>			
College or Program: <input type="checkbox"/> CHABSS <input checked="" type="checkbox"/> CSM <input type="checkbox"/> CEHHS <input type="checkbox"/> COBA <input type="checkbox"/> Other _____		Desired term of implementation: <input checked="" type="checkbox"/> Fall <input type="checkbox"/> Spring <input type="checkbox"/> Summer Year: _____	Mode of Delivery: <input checked="" type="checkbox"/> face to face <input type="checkbox"/> hybrid <input type="checkbox"/> fully on-line
Course Proposer (please print): Michael Schmidt		Email: schmidt@csusm.edu	Submission Date: 3/15/2014

1. Course Catalog Description: Prepares students for CHEM 105 or CHEM 150. Introduces students to fundamental chemical concepts and quantitative problem-solving skills in chemistry. Topics include atomic theory, chemical nomenclature, the periodic table, stoichiometry, atomic structure, and chemical bonding. Intended for students who have not successfully completed high-school chemistry or other preparatory courses within the last five years, or those students who need additional preparation before taking CHEM 105 and CHEM 150.

2. GE Syllabus Checklist: The syllabi for all courses certified for GE credit must contain the following:

<input checked="" type="checkbox"/>	Course description, course title and course number
<input checked="" type="checkbox"/>	Student learning outcomes for General Education Area and student learning objectives specific to your course, linked to how students will meet these objectives through course activities/experiences
<input checked="" type="checkbox"/>	Topics or subjects covered in the course
<input checked="" type="checkbox"/>	Registration conditions
<input checked="" type="checkbox"/>	Specifics relating to how assignments meet the writing requirement
<input checked="" type="checkbox"/>	Tentative course schedule including readings
<input checked="" type="checkbox"/>	Grading components including relative weight of assignments

SIGNATURES

Paul Jera (for Michael Schmidt) 4/2/14
Course Proposer Date

March 3/28/14
Department Chair date

Please note that the department will be required to report assessment data to the GEC annually.

DC Initial _____

Library Faculty Date

Support Do not support*

Impacted Date
Discipline Chair

Support Do not support*

Impacted Discipline Date
Chair

Support Do not Support*

GEC Chair Date

Approve Do not Approve

*** If the proposal is not supported, a memo describing the nature of the objection must be provided.**

Course Coordinator: Phone: Email:

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Part A: B1 Physical Science General Education Learning Outcomes (GELOs) related to course content. [Please type responses into the tables.]

Physical Science GELOs this course will address:	Course content that addresses each GELO.	How will these GELOs be assessed?
B1.1 Students will explain accepted modern physical or chemical principles and theories, their areas of application, and their limitations.	The essentials of atomic theory, including the conservation of mass, will be presented and used in balancing equations; Simple theories of chemical bonding will be introduced and students will be used in predicting structures and properties of simple molecules; Elementary quantum mechanics will be introduced to understand the structure of the atom. The limitations of the simple theories of bonding presented in this course will be introduced as the need for more complicated theories needed to explain the valence and charge of transition metal ions, and the inadequacy of the Lewis octet to adequately predict bonding for heavier elements.	Students will be asked to give reasons, based on <i>explanations of the principals and theories covered</i> , for their answers to common chemical problems such as the balancing of equations. Students will be asked to explain why some violations of the octet rule are permitted for some molecules, or why they cannot predict the charges of transition metal ions.
B1.2 Students will apply the discipline's customary methods to solve problems through data collection, critical evaluation of evidence, the application of quantitatively rich models, and /or employment of mathematical and computer analysis.	The laws of mass and atom conservation will be used to solve stoichiometry problems that allow for the prediction of products and the evaluation of percent yield of products actually produced.	Students will be asked to use stoichiometric principles to predict theoretical yields and to evaluate the success of reactions by calculation of percent yield.
B1.3 Students will be able to articulate what makes a good scientific theory, incorporating values of parsimony, agreement with experimental or observational evidence, and coherence with other mathematical or physical theories.	Atomic theory, simple bonding theory, and elementary quantum mechanics will be presented in the context of the experimental observations that prompted the development of the theories.	Students will be asked to explain why theories presented in the class are reliable enough to use for the problems presented in the course.
B1.4 Students will be able to identify areas in which ethics either (1) directs or limits physical science research or (2) is informed by the products of this research	The use of can be used to better understand important environmental issues which have clear ethical implications.	Students will be asked to comment on the ethical implications of calculations that indicate the amount of a discharge of a substance into the environment. For example, a calculation might show the amount of carbon dioxide produced by an iron smelting process or cement manufacture process, and students will be asked to consider the ethical implications of this release.

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Part B: General Education Learning Outcomes required of all GE courses related to course content:

GE Outcomes required of all Courses	Course content that addresses each GE outcome?	How will these GELOs be assessed?
Students will communicate effectively in writing to various audiences. (writing)	Homework and exam problems will require students to explain their thinking in detail.	Students will be expected to write out solutions and explanations to problems, as they defend their answers.
Students will think critically and analytically about an issue, idea or problem. (critical thinking)	Students will be required to distinguish between common misconceptions about the physical world that are unsupported by historical scientific explorations and scientific understandings which can be supported by experiments both historical and contemporary.	Students will be asked to explain how experimental evidence supports the use of theories presented in the class are reliable enough to use for the problems presented in the course.
Students will find, evaluate and use information appropriate to the course and discipline. (Faculty are strongly encouraged to collaborate with their library faculty.)	Students will learn how to use a periodic table and other tables to get information regarding atomic masses, atomic numbers, electron orbital occupancies, and common modes of chemical bonding.	Students will be tested on their ability to get accurate information from appropriate tables.

Part C: GE Programmatic Goals: The GE program aligns with CSUSM specific and LEAP Goals. All B1 courses must meet at least one of the LEAP Goals.

GE Programmatic Goals	Course addresses this LEAP Goal:
LEAP 1: Knowledge of Human Cultures and the Physical and Natural World.	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
LEAP 2: Intellectual and Practical Skills	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
LEAP 3: Personal and Social Responsibility	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
LEAP 4: Integrative Learning	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes
CSUSM Specific Programmatic Goals	Course content that addresses the following CSUSM goals. Please explain, if applicable.
CSUSM 1: Exposure to and critical thinking about issues of diversity.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (please describe):
CSUSM 2: Exposure to and critical thinking about the interrelatedness of peoples in local, national, and global contexts.	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (please describe):

Part D: Course requirements to be met by the instructor.

Course Requirements:	How will this requirement be met by the instructor?
Course meets the All-University Writing requirement: A minimum of 2500 words of writing shall be required for 3+ unit courses.	Short writing assignments (in the form of homework problems, quiz questions and test questions) will be graded on the extent to which they use and explain standard chemical terminology in a clear, unemotional style.
Courses shall include an evaluation of written work which assesses both content and writing proficiency, using a writing style and use of language that is appropriate for the sciences.	Short writing assignments will be evaluated for accurate portrayal of chemical concepts and ideas. They will also be evaluated for the clarity, specificity, and concision of the language used. Students will be required to write in a clear, unemotional style.

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<p>Courses should demonstrate to students that the applications of physical science principles and theories can lead to lifelong learning in science and to productive and satisfying life choices.</p>	<p>Students will be shown how application of chemical principles and theories can help them distinguish between popular misconceptions about environmental and health issues and scientific understandings based on reliable theories and experiment.</p>
<p>Courses should demonstrate to students the ways in which science influences and is influenced by societies in both the past and the present.</p>	<p>Students will be required to distinguish between common misconceptions about the physical world that are unsupported by historical scientific explorations and scientific understandings which can be supported by experiments both historical and contemporary.</p>
<p>Courses should empower students to communicate effectively to others about scientific principles and their application to real-world problems.</p>	<p>Students will practice communicating their understanding to classmates in group-work sessions and in communicating their understandings in writing to the course instructor.</p>
<p>Courses shall build the students' information literacy in a way that is appropriate to the field and level of the course.</p>	<p>Students will understand how to use a periodic table to get information regarding atomic masses, atomic numbers, electron orbital occupancies, and common modes of chemical bonding.</p>
<p>Courses shall require students to think critically so that they are able to distinguish scientific arguments from pseudo-scientific myths or opinions.</p>	<p>Students will not be able to get good scores on quizzes and tests if they rely on common misconceptions or their own opinions of how nature should behave; only by applying proven scientific models in a logical, methodical and consistent manner will they be able to arrive at predictions borne out by experimental evidence.</p>

Course Description: Prepares students for CHEM 105 or CHEM 150. Introduces students to fundamental chemical concepts and quantitative problem-solving skills in chemistry. Topics include atomic theory, chemical nomenclature, the periodic table, stoichiometry, atomic structure, and chemical bonding. Intended for students who have not successfully completed high-school chemistry or other preparatory courses within the last five years, or those students who need additional preparation before taking CHEM 105 and CHEM 150.

Course Objectives: Chemistry 101 is primarily designed to prepare the student for a subsequent course in General Chemistry, but also fulfills General Education Learning Objectives. This course will give you a good introduction to the basic concepts of chemistry as well as an understanding of the nature of the physical sciences. No previous knowledge of chemistry is required.

Student Learning Outcomes:

Students will be expected to develop mastery in the following areas and demonstrate the ability to:

- Measure lengths, masses and volumes in the metric system, and convert English system measurements to metric, and vice versa.
- Describe the three states of matter in terms of Kinetic Molecular Theory.
- Differentiate between physical and chemical changes.
- Predict relationships in properties of atoms, based upon location in the Periodic Table.
- Describe the basis of ionic and covalent bonding and deduce which of these are most important for simple compounds. **(Includes limitations of Lewis Dot rules for hypervalent and hypovalent atoms to satisfy GELO B1.1)**
- Distinguish between hydrogen bonding, dipole-dipole or dispersion forces as the principal intermolecular forces for simple compounds.
- Interpret stoichiometry problems and calculate the amount of a reactant needed or the amount of a product which will be produced during a chemical reaction. **(Satisfies GELO B1.2)**
- Recognize different kinds of chemical reactions and balance simple chemical equations. **(Includes being able to describe the reason for balancing equations, to satisfy GELO B1.1)**
- Define oxidation and reduction; describe examples (batteries, cell respiration, etc.)
- Categorize sample compounds as acids or bases and predict their interactions.
- Solve problems using the elementary gas laws.
- Summarize the experimental evidence which supports atomic theory, gas laws, and other theories used in this course **(Satisfies GELO B1.3)**.
- Describe how concepts such as stoichiometry can be used to get quantitative information that directly aids in understanding ethical issues such as the environmental effects of industrial processes. **(Satisfies GELO B1.4)**.
- Name basic chemical compounds (ionic and molecular) and identify the functional groups present in common organic compounds.
- Describe the nuclear structure of any isotope, the electronic structure of any element with atomic number of 38 or less, and the electron configuration of representative (A-group) element in the periodic table.

- Draw Lewis structures and molecular geometry for molecules and ions. Identify molecules as polar or nonpolar.

All of these Student Learning Outcomes will be satisfied through Homework Assignments and will be assessed through Examinations.

Introduction

Hello and welcome to Chemistry 101. In this course we will work together so that you will learn the general principles of chemistry. I will provide you with the tools to be successful in this class, but it is up to you to use them to their fullest. I do ask that you work hard, be honest and respect others in my course. If you have any questions concerning this class or your performance, please do not hesitate to see me as soon as possible.

During this course you will develop problem solving skills that will serve you in many of your future studies and in many other areas of your life. **These problem solving skills cannot be learned without considerable practice on your part.** Be prepared to spend at least two hours per lecture hour and one hour per lab meeting additional study time. **Don't Panic!** Don't fool yourself either. **You must begin your studies today!** This is not the kind of course that you can wait until the day before an exam to begin your studies. To do so will lead to failure. Develop a habit of working as many of the Chapter exercises as possible and plan to spend some time each day studying chemistry. Please note that it may not be possible to cover all material mentioned in the lecture schedule during the lecture period. You will be expected to do some independent study during this course.

REQUIRED TEXT AND SUPPLIES

- 1) **Textbook: Lecture: "Introductory Chemistry", Nivaldo J. Tro, 4th Edition, Prentice Hall, 2011, ISBN 978-0-321-68793-9.**
- 2) **Calculator:** A simple calculator capable of scientific notation and calculations such as a Texas Instruments TI-30 is ideal. Programmable calculators will not be allowed and calculators may not be shared during exams. **Bring your calculator to EVERY lecture period (you may not use your cell phone calculator).**
- 3) **(5) Scantron Forms (Form No. 882-E), Turn in to me one week before the first exam.**

LEARNING HOW TO LEARN CHEMISTRY

- **Have a positive attitude and be confident.** You can learn, understand and become proficient solving chemistry problems. Solving chemistry problems is a learned skill and requires practice to master.
- **Come to class prepared.** Read the text and study the figures and the tables in the Chapter prior to the lecture.
- Try to do the problems inside the Chapter before coming to the lecture.
- **Bring your textbook, scratch paper, and calculator with you to lecture.** We will be doing practice problems during lecture and this will prepare you for homework, quiz and exam problems.
- **Practice doing lots of homework problems.**

- **Form a study group** with your classmates and work on the problems together. Take turns explaining concepts to one another in your study group.
- **Don't limit yourself to just the assigned problems.** The more problems you do the greater mastery you'll have.

ASSIGNMENTS

You must read and study the assigned Chapter sections before each class meeting. Quizzes may be given on any aspect of the course during the semester.

Chapter Homework. You must do Chapter exercises (all odd numbered problems) at the end of each Chapter and any extra problems assigned to you. Place your homework problems in a dedicated spiral bound notebook. You will hand in your complete home exercises in this notebook on the date of each exam. You will be better prepared for the exam problems by taking the time to work on **extra problems**. Working problems in the book and other sources is an ideal way to prepare for the exams given in this course. **Your work on these homework problems will fulfillment of the writing requirement for this course.**

Attendance: This is a 3-Unit course and **Attendance is mandatory.** Please show up on time and attend each complete class meeting. It is your responsibility to **sign the attendance roster at the beginning each class meeting.** If your signature does not appear in the attendance roster, you will be marked absent for that class meeting. **Do not have a fellow student sign in for you.**

If you do know you will miss a class meeting for any reason (illness, auto accident, childbirth, etc), inform me as soon as possible and I will evaluate your circumstance on a case-by-case basis and decide the appropriate method for any makeup. In the event of an absence, you are responsible for all material covered in class, all assignments due for that day, and any schedule changes or class announcements. If you wish to drop the course, **you** are responsible.

EXAMINATIONS

There will be four exams this semester in addition to a cumulative final exam. These exams are not optional and are given as per the schedule. The semester moves very quickly! It is very important for you to stay current and seek assistance when needed. All exams will be closed book and in general **there will be no makeup exams or quizzes.** If you miss an exam for just cause (illness, auto accident, childbirth, etc), inform me as soon as possible and I will evaluate your circumstance on a case-by-case basis and decide the appropriate method for a makeup exam. **There is no makeup for quizzes, exams or assignments that are not turned on time.**

Exam Dates: Exams are shown in the course schedule. Please note that exam dates may change in order to meet the instructional requirements of this course.

Course Grade: Each exam will be worth 100 percentage points. An tentative grading scale has been set as: **89-100% A, 79-88% B, 65-78% C, 56-64% D, Below 55%, F.** Please note that anyone with less than 55% average on the exams (including the final exam). Evidence of improvement during the semester will be considered when assigning the final letter grade for the course. Participation points may be awarded during problem solving sessions and certain in-class exercises. However, all participation points are awarded at my discretion with consideration for your overall performance, attitude and behavior taken into account. The

average number of participation points for the class will be added to the total points available. Students above the average number may receive these points as extra credit points.

The final grade will be based on the breakdown shown below:

Exams	65%
Quizzes, Assignments, Participation, etc	15%
Final Exam	20%
Total	100%

General Guidelines for Grade Assignment

Percentage	Grade
89 – 100	A
79 – 88	B
65 – 78	C
56 – 64	D
Below 55	F

One Final Note: Although it should not be necessary to make this comment, *dishonesty in any form will not be tolerated* in this class. *Anyone involved in cheating on the exams, quizzes, assignments, etc., will fail the class and will be reported to campus authorities.* You will not under any circumstances collaborate with any other student when preparing answers for examinations and quizzes.

SPECIAL SERVICES

Students with disabilities who may need accommodations in this class are encouraged to notify the instructor and contact the appropriate CSUSM department to obtain additional support as required.

ACADEMIC INTEGRITY POLICY

The faculty and the college have determined that integrity and honesty are essential to the academic process and that it is necessary that the written materials submitted by each student reflect his or her own work for that class. If you cheat in any way shape or form, I have the discretion to give you a failing grade for the course.

Submitting work as one's own which has been done either all or part by another is defined as **CHEATING**. Students found cheating will receive an "F" for the course. "CHEATING" includes but is not limited to the following:

1. The possession or use of unauthorized materials (crib notes or unauthorized copies of exam material).
2. Copying from a person's quiz or exam or allowing another person to copy one's examination.
3. Copying from a person's data and turning it in as one's own or allowing another person to copy one's data.
4. Using a calculator, computer or other device, which contains stored information while taking a quiz or examination.
5. The possession and/or use at the students work area of a personal communications device during exams or quizzes.
6. Submitting a false report for work that was not actually done.

7. Modifying or attempting to modify an answer on an exam after it has been returned and then claiming it was graded incorrectly.

OTHER IMPORTANT INFORMATION

1. By the second class meeting you must have a calculator that has the following functions: scientific notation, base 10 and natural logarithms, and powers of roots (e.g. y^x or $n\sqrt{\quad}$). If you need help in determining whether your calculator contains these functions or in using any of your calculator's functions, please inform your instructor immediately. ***It will be your responsibility to understand the use of your calculator and its functions.*** Please bring your calculator to each class meeting.
2. ***For all quizzes & exams you must bring a calculator.*** No sharing of calculators will be permitted. It is your responsibility to bring your calculator on the day of a quiz or exam. If you do not, you may not be allowed to take the quiz or exam with a calculator. Scratch paper will not be permitted unless provided by your instructor. If you read this syllabus in its entirety and contact me by e-mail no later than eight am, January twenty second, two thousand and fourteen you will receive of twenty five participation points.
3. For all assignments that are to be graded, i.e., quizzes, exams, etc: ***No credit*** will be given for any numerical problems unless they are accompanied by a ***complete step-by-step solution*** which clearly shows how the answer was obtained. **Always place your final answer in a box** and remember that neatness will count. ***If your work cannot be clearly followed, you may not be given credit for that problem.*** Write your name and seating assignment on all sheets of paper you turn in.
4. **Seating Assignments:** A seating chart may be posted or determined for any quiz, exam or laboratory session. If you are not seated in your assigned seat, then you will be asked to comply with the seating chart. ***If you refuse to comply, you will not be allowed to take the quiz or exam.***
5. **Class attendance:** As discussed above, class attendance is mandatory. If you drop this course it is your responsibility to go to the registration office where you must fill out the proper paper work. ***Your failure to show up to class is not sufficient action to drop the course.***
6. **Examinations:** If you believe you have a valid excuse for missing an exam, you must supply this to me in writing prior to the exam. If this is not possible you must notify me within one week of the exam, otherwise a **zero** will be recorded for that exam.
7. **Disruptive Behavior:** You have a responsibility to conduct yourself in a mature manner in class. ***Side conversations are prohibited unless these are a part of an assigned exercise.*** Any behavior which interferes with the legitimate instructional, administrative or service functions of the class is considered to be disruptive behavior. I ask that you respect your instructor and your fellow classmates at all times.
8. **Plagiarism and cheating will not be tolerated.** If you engage in either of these activities on any assignment (exams, quizzes, lab assignments, etc.) then you will receive ***no credit*** for the assignment and may be dismissed from the course, receive a failing grade and be referred to the Dean for disciplinary action. You will be asked on occasion to work with other students in collaborative activities. The results of this effort must be reported in any assignments due in your own words. These assignments must represent your efforts and cannot resemble in any way the work of a fellow classmate. ***You will not under any circumstances collaborate with any other student when preparing the answers for examinations and quizzes.***
9. **Academic Misconduct and Cheating.** ***In this course you are encouraged to study and prepare for quizzes and examinations with other students. However, when taking quizzes and examinations, and when writing laboratory reports, you are to work alone. College regulations are very explicit about academic misconduct and cheating and these regulations will be fully enforced. During examinations,***

*we will apply a code of honor, under which you are to work alone and neither give nor receive help from any source. **In addition, you are expected to help enforce this code.***

- 10. Cell phones and Other Electronic Communication/Recording Devices.** All such devices must be turned off during lecture. ***Under no circumstances are you to access such a device during a quiz or exam***
- 11.** All papers and assignments that you submit must be organized, stapled together and labeled as instructed for the appropriate assignment. Pay attention to in class instructions about how to organize your papers prior to submission. I will take 2-5 points off of your assignment if I have to organize, staple or put your name on any assignment, exam or quiz submission.

Tentative*

Chemistry 101 Schedule

Spring 2014

Lecture Date	Chapter	Topics	Homework	Notes
August 25 Monday (Week #1)	Chap 1: The Chemical World	Introduction, Study Methods, etc. Nomenclature of binary ionic compounds	Ch 1 – All Problems	
August 27 Wednesday	Chap 2: Measurement and problem solving	Significant Figures Metric Units, Density, Dimensional Analysis,	Ch 2 - All Odd Problems	
Sept. 3 Wednesday (Week #2)	Chap 2: (cont) Measurement and problem solving	Significant Figures Metric Units, Density, Dimensional Analysis,		
Sept. 8 Monday (Week #3)	Chap 2: (cont) Measurement and problem solving Chap 3: Matter and Energy	<i>Matter, States, Physical & Chemical Properties, Conservation of Mass, Temperature, Heat capacity</i>	Chap 3 – All Odd Problems	
Sept. 10 Wednesday	Chap 3: Matter and Energy	<i>Matter, States, Physical & Chemical Properties,</i>		
Sept. 15 Monday (Week #4)	Chap 3 (cont):	<i>Conservation of Mass, Temperature, Heat capacity</i>		
Sept. 17 Wednesday	Chap 4: Atoms and Elements Chap 5: Molecules and Compounds	<i>Atoms, Protons, Neutrons, Electrons, Modern Atomic Structure, Periodic Table, Isotopes, Ions, Atomic Mass</i>	Ch 4 – All Odd Problems	

Tentative*

Chemistry 101 Schedule

Spring 2014

Lecture Date	Chapter	Topics	Homework	Notes
Sept. 22 Monday (Week #5)	Chap 4: Atoms and Elements Chap 5: Molecules and Compounds	<i>Atoms, Protons, Neutrons, Electrons, Modern Atomic Structure, Periodic Table, Isotopes, Ions, Atomic Mass Ionic Compounds, Polyatomic Ions</i>	Ch 5 - All Odd Problems	
Sept. 24 Wednesday	Exam #1 (Ch 1-5)	<p><u>Turn in your spiral notebook with Ch 1, 2, 3, 4 & 5 homework problems</u> **Turn your notebook open to Ch 1. Have your name on this page**.</p>		Exam #1 (Ch 1-5)
Sept. 29 Monday (Week #6)	Chap 6: Chemical Composition	<i>Moles; Molar mass; Avogadro's number; Percent composition; empirical formulas; determination of molecular formulas</i>	Ch 6 - All Odd Problems	
Oct. 1 Wednesday	Chap 6: Chemical Composition (cont)	<i>Chemical Equations,</i>		
Oct. 6 Monday (Week #7)	Chap 7: Chemical Reactions	Chemical Reactions: Aqueous Solutions and Chemical Reactions Prediction, Precipitation, Acid/Base, Oxidation - Reduction, Classifying Chemical Reactions	Ch 7 - All Odd Problems	
Oct. 8 Wednesday	Chap 7: (cont) Chemical Reactions Chap 16: Oxidation and Reduction	Activity Series, Oxidation Numbers		

Oct. 13 Monday (Week #8)	Chap 8: Quantities in Chemical Reactions	Stoichiometry, Theoretical yield; percent yield; limiting reactant; Mole-to-Mole Conversions	Ch 8 – All Odd Problems	
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Tentative*

Chemistry 101 Schedule

Spring 2014

Lecture Date	Chapter	Topics	Homework	Notes
Oct. 15 Wednesday	Chap 8: (cont) Quantities in Chemical Reactions			
Oct. 20 Monday (Week #9)	Exam #2 (Ch 6, 7 & 8)	<u>Turn in your spiral notebook with Ch 6, 7 & 8 homework problems</u> **Turn in your notebook open to Ch 6. Have your name on this page**.		Nomenclature Packet is Due
Oct. 22 Wednesday	Chap 9: Electrons in Atoms and the Periodic Table			
Oct. 27 Monday (Week #10)	Chap 9: (cont) Electrons in Atoms and the Periodic Table	Models for the Atom, Rutherford's Atom, Electromagnetic Spectrum, The Bohr Model, Quantum-Mechanical Model, Orbitals	Ch 9 – All Odd Problems	
Oct. 29 Wednesday	Chap 9: (cont)			
Nov. 3 Monday (Week #12)	Chap 10: Chemical Bonding	Ionic Bonds, Covalent Bonds, Bond Polarity, Lewis Structures, Molecular Shape, VSEPR Model	Ch 10 - All Odd Problems	

Nov. 8 Wednesday	Chap 10: (cont) Chemical Bonding	Ionic Bonds, Covalent Bonds, Bond Polarity, Lewis Structures, Molecular Shape, VSEPR Model		
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Tentative*

Chemistry 101 Schedule

Spring 2014

Lecture Date	Chapter	Topics	Homework	Notes
Nov. 10 Monday (Week #13)	Chap 11: Gases	Model of Gases, Pressure –Molecular Collisions, Boyle's Law (P vs V), Charles's Law (V vs T) Avogadro's Law (V vs n),	Ch 11 – All Odd Problems	
Nov. 12 Wednesday	Chap 11: (cont) Gases	Ideal Gas Law, Mixtures of Gases, Gases in Chemical Reactions		
Nov. 17 Monday (Week #14)	Chap 12: Liquids, Solids and Intermolecular Forces	Viscosity, Evaporation, Condensation, Melting, Freezing, Types of Intermolecular Forces: Dispersion, Dipole-Dipole, Hydrogen Bonding	Ch 12 – All Odd Problems	
Nov. 19 Wednesday	Exam #3 (Ch 9, 10 & 11)	<u>Turn in your spiral notebook with Ch 9, 10, 11 homework problems</u> **Turn your notebook open to Ch 9. Have your name on this page**.		Exam #3 (Ch 9, 10 & 11)
Nov. 24 Monday (Week #15)	Chap 12: (cont) : Liquids, Solids and Intermolecular Forces Chap 13: Solutions	Solids dissolved in Liquids, Homogeneous Mixtures,	Ch 13 – All Odd Problems Start Additional Problems: Homework Sets #21 - 24	

Dec. 1 Monday	Chap 13: (cont) : Solutions	Colligative properties- freezing point depression, boiling point elevation and osmosis	Ch 14 – All Odd Problems	
Dec. 3 Wednesday (Week #16)	Chap 14: Acids and Bases	Properties, Molecular Definitions, Reactions of Acids and Bases, Acid-Bases Titration, Strong/Weak Acids & Bases, Water (an acid & a base), The pH Scale	Ch 14 – All Odd Problems	

Tentative*

Chemistry 101 Schedule

Spring 2014

Lecture Date	Chapter	Topics	Homework	Notes
Dec 8 Monday 9:15 am (Week #17)		Final Exam Monday Dec. 8 9:15 am	Final Exam Monday Dec. 8 9:15 am	Final Exam Monday Dec. 8 9:15 am

Subject: Re: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101
Date: Tuesday, April 1, 2014 12:19:41 PM PT
From: Jocelyn Ahlers
To: Paul Jasien

Hi, Paul -
I apologize for the delay. LBST supports granting B1/B3 credit for these courses.
Thank you,
Jocelyn
--

Jocelyn C. Ahlers
Chair, Liberal Studies Department

Professor of Linguistics
Liberal Studies Department
California State University, San Marcos
760-750-8014; jahlers@csusm.edu

From: Paul Jasien <jasien@csusm.edu>
Date: Wednesday, March 26, 2014 4:22 PM
To: Edward Price <eprice@csusm.edu>, Jocelyn Ahlers <jahlers@csusm.edu>
Subject: FW: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

Dear Colleague,

Last Thursday, I sent you a series of documents related to re-certifying CHEM 101, 150, and 150L as LDGE courses. (See below). Hopefully, you have found time to review these. If not, I would appreciate it if you could review these and send me an email indicating whether you SUPPORT or DO NOT SUPPORT granting B1/B3 credit for these courses.

Thank you.
Paul

From: Paul Jasien <jasien@csusm.edu>
Date: Thu, 20 Mar 2014 13:20:21 -0700
To: Edward Price <eprice@csusm.edu>, Andre Kundgen <akundgen@csusm.edu>, Tracey Brown <traceyb@csusm.edu>, <jnessler@csusm.edu>, Jocelyn Ahlers <jahlers@csusm.edu>, Yvonne Meulemans <ymeulema@csusm.edu>
Cc: Marshall Whittlesey <mwhittle@csusm.edu>
Subject: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

Dear Colleague,

As part of the recertification process for LDGE, we are required to obtain signatures from ALL affected constituencies, which is why you are receiving this email. Instead of running around trying to obtain hard copy signatures from you, I am emailing you the required information needed for your review. Attached are the recertification documents and sample syllabi for CHEM 101, CHEM 150, and CHEM 150L.

Please review these forms and send an email to me signifying whether you SUPPORT or DO NOT SUPPORT granting B1/B3 credit for these courses.

If you have any questions, I will be happy to discuss them with you.
Sincerely,

Subject: Re: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101
Date: Sunday, March 23, 2014 10:11:42 AM PT
From: Talitha Matlin
To: Paul Jasien

Hi Paul,

These look good to me. The Library supports the recert of these classes.

Best,
Talitha

From: Paul Jasien <jasien@csusm.edu>
Date: Friday, March 21, 2014 8:12 AM
To: tmatlin <tmatlin@csusm.edu>
Subject: Re: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

OK. Thank you.

From: Talitha Matlin <tmatlin@csusm.edu>
Date: Fri, 21 Mar 2014 08:02:13 -0700
To: Paul Jasien <jasien@csusm.edu>
Subject: FW: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

Hi Paul,

I just wanted to let you know that Yvonne forwarded this to me and I'll be taking a look over the next couple of days.

Best,
Talitha

From: Paul Jasien <jasien@csusm.edu>
Date: Thursday, March 20, 2014 at 1:20 PM
To: Edward Price <eprice@csusm.edu>, Andre Kundgen <akundgen@csusm.edu>, Tracey Brown <traceyb@csusm.edu>, Jeff Nessler <jnessler@csusm.edu>, Jocelyn Ahlers <jahlers@csusm.edu>, Yvonne Meulemans <ymeulema@csusm.edu>
Cc: Marshall Whittlesey <mwhittle@csusm.edu>
Subject: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

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Subject: RE: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

Date: Thursday, March 20, 2014 6:14:53 PM PT

From: Tracey Brown

To: Jeff Nessler, Paul Jasien, Edward Price, Andre Kundgen, Jocelyn Ahlers, Yvonne Meulemans

CC: Marshall Whittlesey

Biology supports these recertifications as well.

Sent from my Verizon Wireless 4G LTE Smartphone

----- Original message -----

From: Jeff Nessler

Date: 03/20/2014 5:27 PM (GMT-07:00)

To: Paul Jasien, Edward Price, Andre Kundgen, Tracey Brown, Jocelyn Ahlers, Yvonne Meulemans

Cc: Marshall Whittlesey

Subject: Re: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

Kinesiology supports the re-certification of these Chemistry courses.

Jeff Nessler, Ph.D.

Associate Professor and Chair

Department of Kinesiology

California State University, San Marcos

University Hall 308

760-750-7352

From: Paul Jasien <jasien@csusm.edu>

Date: Thursday, March 20, 2014 12:20 PM

To: Edward Price <eprice@csusm.edu>, Andre Kundgen <akundgen@csusm.edu>, Tracey Brown <traceyb@csusm.edu>, Jeff Nessler <jnessler@csusm.edu>, Jocelyn Ahlers <jahlers@csusm.edu>, Yvonne Meulemans <ymeulema@csusm.edu>

Cc: Marshall Whittlesey <mwhittle@csusm.edu>

Subject: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

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Sincerely,

Paul

Dr. Paul Jasien

Subject: Re: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

Date: Thursday, March 20, 2014 5:27:35 PM PT

From: Jeff Nessler

To: Paul Jasien, Edward Price, Andre Kundgen, Tracey Brown, Jocelyn Ahlers, Yvonne Meulemans

CC: Marshall Whittlesey

Kinesiology supports the re-certification of these Chemistry courses.

Jeff Nessler, Ph.D.
Associate Professor and Chair
Department of Kinesiology
California State University, San Marcos
University Hall 308
760-750-7352

From: Paul Jasien <jasien@csusm.edu>

Date: Thursday, March 20, 2014 12:20 PM

To: Edward Price <eprice@csusm.edu>, Andre Kundgen <akundgen@csusm.edu>, Tracey Brown <traceyb@csusm.edu>, Jeff Nessler <jnessler@csusm.edu>, Jocelyn Ahlers <jahlers@csusm.edu>, Yvonne Meulemans <ymeulema@csusm.edu>

Cc: Marshall Whittlesey <mwhittle@csusm.edu>

Subject: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

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If you have any questions, I will be happy to discuss them with you.

Sincerely,
Paul

Dr. Paul Jasien
Professor of Physical Chemistry
Department of Chemistry & Biochemistry
California State University, San Marcos

Subject: RE: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101
Date: Thursday, March 20, 2014 5:19:19 PM PT
From: Andre Kundgen
To: Paul Jasien, Edward Price, Tracey Brown, Jeff Nessler, Jocelyn Ahlers, Yvonne Meulemans
CC: Marshall Whittlesey

Mathematics SUPPORTS granting B1/B3 credit to these Chemistry courses.

Best wishes,

Andre

Dr. Andre Kundgen
Professor and Department Chair
Department of Mathematics
California State University San Marcos

From: Paul Jasien
Sent: Thursday, March 20, 2014 1:21 PM
To: Edward Price; Andre Kundgen; Tracey Brown; Jeff Nessler; Jocelyn Ahlers; Yvonne Meulemans
Cc: Marshall Whittlesey
Subject: GE Recertification Areas B1 & B3 - CHEM 150, 150L, and 101

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Sincerely,
Paul

Dr. Paul Jasien
Professor of Physical Chemistry
Department of Chemistry & Biochemistry
California State University, San Marcos