HSC 1100 not approved for GE + no app included

Freshman Cluster Proposal: Healthier Living, and Engineering Cluster

Proposal (please keep answers to the following questions to a maximum of 5 pages. Include signature page, course syllabi/outlines, and GE course application forms in addition to the five pages for these questions.)

1. What is the theme you propose for your group of courses? In what ways do you think this theme speaks to issues important to our freshman population?

Healthier Living: pathway one of this cluster is designed for the Health Sciences students (that includes both students who wish to go onto the nursing program and students who have non-nursing career goals) who, if successful in completing their program, wish to go onto careers helping create healthier lives for themselves and their patients. The second pathway in this cluster is designed for Engineering students. It is designed to provide the new engineering students with a solid foundation upon which to understand engineering as a profession designed to provide better living for humans, including design and use of materials and structures that pose less risk and greater physical efficiency for the people who use those materials and structures, and less environmental damage from their construction, manufacture, and use.

2. List the three courses (prefix, number, title, units)

Fall: Chemistry 1605 Chemistry for the Health Sciences, for Health Sciences students who wish to go onto the nursing program (pre-nursing);

); or Chemistry 1101 General Chemistry (5), for Engineering majors

Winter: Biological Sciences 2011 Anatomy and Physiology (5) for pre-nursing, or, for Engineering majors, Engineering 1011 Introduction to Engineering (3)

Spring: Psychology 1005 General Psychology (5) for both Health Sciences and Engineering students

3. Explain how the theme will be used to integrate course content in each course. (Describe the contribution of each discipline's perspective on the theme that will help create a coherent learning experience for the students.)

This cluster as described here has both a Health Career ~~option~~ and an Engineering ~~option.~~ This includes different Chemistry courses for the two student groups to meet the major's specific needs. The design of this cluster will allow us to split off a cluster for Engineering students.

The Health Career ~~option~~ is designed for students interested in health careers such as Nursing, Health Sciences, Kinesiology, and Communicative Disorders. It includes courses in Chemistry, Psychology, and Biological Sciences. Each of these three disciplines study processes which contribute to the health of people; in this cluster the foundational concepts and principles of these processes will be examined. Chemistry 1605 is specifically designed

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2. List the three courses (prefix, number, title, units)

Fall: Chemistry 1605 Chemistry for the Health Sciences, for Health Sciences students who wish to go onto the nursing program (pre-nursing); Health Sciences 1100 Health: Maintenance of Wellness (for students having non-nursing goals); or Chemistry 1101 General Chemistry (5), for Engineering majors

Winter: Biological Sciences 2011 Anatomy and Physiology (5) for pre-nursing, or, for Engineering majors, Engineering 1011 Introduction to Engineering (3)

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to introduce the structure of matter in terms of atoms and molecules underlying living systems, reactions in aqueous solutions of which protoplasm is made, and the chemicals found in water and foods—all applied to the health professions. It is a required course for admission to the Nursing program. Students who wish to take a non-nursing career path can opt to take Health Sciences 1100 Health: Maintenance of Wellness that introduces students to the Wellness concept for healthful living, and instruction in procedure for self-care, self-examination, emergency care, and efficient utilization of the medical care system. Biological Sciences 2011 will provide an understanding of the workings of the human body. This knowledge helps people make wise choices about their health and builds the foundation for understanding medical interventions for and repairs to the human body. Psychology 1005 will bring in the basic processes underlying human behavior, perception, motivation, learning and thinking, and emotion as they affect health and as they influence decisions about health. It will also introduce the psychological aspects of health including the effects of stress and psychological disorders.

cluster

The Engineering ~~option~~ substitutes Chemistry 1101 (offered to freshmen majoring in the physical sciences) which provides a more technical focus on atoms and molecules and their interactions. This prepares Engineering students for the required Materials Science course offered later in their lower division curriculum. In place of Biological Sciences 2011, Engineering students will take Engineering 1011 with a focus on the role of engineering decisions on sustainability and environmental concerns, and on the impact of engineering decisions on the health of people who use the engineer's products. Industrial engineers apply a combination of natural and behavioral sciences to design systems. Chemistry 1101 and Psychology 1005 provide basic knowledge in these areas. Chem 1101 provides basic knowledge about the structure of materials, while Psyc 1005 provides basic knowledge about how humans use their sensory and cognitive systems to interact with the systems designed by engineers. The Engineering 1011 course teaches students how this knowledge applies to the creative and healthy solution to engineering problems.

4. Explain how each course in the proposed learning community will support student learning of each of the lower division general education area learning outcomes and General Education requirements (passed by Academic Senate February 17, 2004). Please use the GE course application forms to address this question. (If the course has already been approved for GE credit, and the current application form was used, please attach a copy. If the course has not yet been approved for GE credit, the use of the application form will permit review for GE credit, even if the cluster application is not selected.

Chemistry 1605 and 1101 has long held lower division physical science approval, and prior but updated approval documents are attached. Similarly, Psychology 1000 and its variations have long been approved as life science courses for GE and prior but updated approval documents are attached. Engineering's application for GE approval is attached to this document. Health Sciences 1100 is a course that provides a broad base in health, wellness, and health maintenance. Health Sciences 1100 has not been submitted for GE application as of yet.

5. Attach course outlines for the three courses. Each course outline should indicate how the theme would be used in the course and any student activities that cross all three courses. (For

example, will there be common reading(s) in the three courses? Will there be common assignments, or assignments on which students work the entire year? Will students keep a cluster portfolio? Etc.)

Course syllabi for all courses involved are attached, along with the relevant GE applications (except for the GE application for Health Sciences 1100, which has not been submitted for GE application as of yet).

Approved by Department Chairs:

Signature	Department	Date
David Motonalli	Engr.	3/28/11
Ann McPartland	Chem/Biochem	3/29/11
	Biology	3/29/11
	Psychology	3/30/11
Lyn Vathoff	Nursing	3/30/11

Approved by College Dean/Associate Dean from each participating college[1]

Signature	Date
Alan Merat	3/30/11

Signatures of three faculty members: Ideally, the person who will teach the courses will participate in the cluster planning. However, recognizing the staffing difficulties departments face, the faculty member who plans the cluster must agree to provide a thorough orientation to the expectations and methods developed for the learning community to the actual instructor. **We each agree, if selected, to meet on for six hours during the following three days for an end-of-Spring workshop on interdisciplinary curriculum, pedagogy and course integration**

3/29/11	3/29/11
Ann McPartland 3/29/11	3/30/11
3/29/11	

Proposals should be submitted as soon as possible and no later than Friday, April 1, 2011. Please submit proposals to sally.murphy@csueastbay.edu and linda.beebe@csueastbay.edu.

[1] While Colleges do not approve courses for GE, College approval assures support for departmental participation.

Biol 2011 Lab Section 1B **Winter, 2010**

Tues 9:20-11:50 am **R. A. Symmons, Ph.D.**

Lab location: Sci S 346

Note: Quizzes will be given at regular intervals. The quizzes will be announced by the lab instructor during the lab session the week prior to the quiz. You must attend the first lab session to hold your registration in the lab section and in the course. The lab will have a lab practical in the last lab period of the quarter. **You must obtain a passing grade in the lab to pass the course.**

Week — Lab Topic & Activity

Jan 5th **ORGAN SYSTEMS OF THE BODY / METRIC SYSTEM MEASUREMENTS:**

Review or learn anew the key organs of the body, their locations and their functions. Review/learn expressing and interconverting units of measurement between and within the metric and British/U.S. systems. Consult your text for metric equivalents (*Appendix A in Marieb*), but ultimately conversions need to be accomplished without any aid from tables. Learn to use dimensional analysis to solve quantitative problems. As time permits, begin learning major bones of the skeleton.

Lab Manual: Read "Locating Major Organs", "Measurement" before lab and scan "Human Skeletal System" when you finish.

Jan 12th **SKELETAL SYSTEM:**

Identify the major bones and key landmarks of the skeleton. Compare the articulated and disarticulated skeletons to aid determination of bone identity. Landmarks are sites of muscle attachment, or provide openings for nerves and blood vessels, or are evident as prominences at the body surface.

Lab Manual: Read "Human Skeletal System" before lab.

Jan 19th **SKELETAL SYSTEM:**

Complete identification of major bones and landmarks. Investigation of the functional anatomy of the knee joint. Begin to learn the major superficial muscles of the body.

Lab Manual: Read "Human Skeletal System" before lab and browse AMuscular System" when finished.

Jan 26th **MUSCULAR SYSTEM:**

Complete learning of major muscles; move from ID of major superficial muscles to deeper muscled, then to muscle origins and finally to basic muscle actions.

Week	Lab Topic & Activity

Feb 2nd **MUSCULAR SYSTEM / SURFACE ANATOMY:**

Focus on muscle actions. Wear loose fitting, easily shed clothing over shorts, leotards or other comfortable sportswear that permit you to locate bone & muscle landmarks and palpate active muscle contractions as motions are executed.

Lab Manual: Read "Surface Anatomy" before lab.

View the video titled *Human Muscle* (Benjamin-Cummings)

Feb 9th **CARDIOVASCULAR SYSTEM:**

Learn the major blood vessels of the body. Make physiological measurements of blood pressure, heart rate & listen to your heart sounds at rest; if the opportunity is provided, listen to the heart sounds of others.

Lab Manual: Read "Circulation: Anatomy & Physiology" before lab.

View computer animation titled *The Engine of Life*

Feb 16th **CARDIOVASCULAR SYSTEM:**

Complete observations on cardiovascular physiology, including cardiovascular responses to mild exercise. Demonstration of the electrocardiogram. Perform spirometry and collect data for pulmonary function test to be analyzed in the next lab session.

Lab Manual: Read ACardiovascular Measures@ before lab, and look over "Respiration: Observations and Measurements" about the part on how to do the Forced Vital Capacity measurement.

Feb 23rd **RESPIRATORY SYSTEM:**

Analyze data obtained in pulmonary function tests and complete observations on the physiology of breathing.

Lab Manual: Read ARespiration: Observations and Measurements" before lab.@ .

Demonstration: Regulation of ventilation

Week	Lab Topic & Activity

March 2nd **NERVOUS SYSTEM:**

Investigation of the anatomy of the nervous system including the spinal cord and spinal nerves.

Examination of some key reflex responses in humans and their physiologic importance.

Lab Manual: Read ANervous System: Anatomical and Functional Aspects@ and AReflexes in Humans@ in lab manual before the lab session.

Demonstration: monosynaptic reflexes and modulation of a monosynaptic reflex by the gamma-efferent motor system.

Identify the major brain regions and correlate brain regions with specific brain functions.

Review materials for Final Lab Practical as time permits.

March 9th **COMPREHENSIVE LAB PRACTICAL EXAM**

Exam will begin @ 10:30 am.

Information about Prof. Symmons' Lab Sections:

- The laboratory portion of this course offers a true "hands on" experience. When you handle a human bone, you learn to identify certain landmarks and features by feeling a real bone. Touch adds to the learning process, as it engages a different but important part of the brain in the learning activity. Make the most of this learning environment.

- Bring your lab manual ***and your textbook*** with you to every lab class. You paid a lot for the text, and it has the best illustrations that you'll find in any source, so make use of the rather expensive tool you bought.

- The lab section meets at 9:20 am and adjourns at 11:50 am. Arrive on time, please. While you are not required to remain in lab until it ends at 11:50 am, leaving early on a regular basis is a danger signal to me and should be for you as well. Often there is more information in a lab session than can be accommodated in the time allowed. Your chances of success in the course are dependent on how you prepare for and work in the lab. Suggestion: Don't leave the lab until your work is done.

- Study with others in the lab. You may want to form a small group to help each other out. The ideal group size is 3 students. Feel free to question your lab acquaintance, and to be questioned as well. You will learn most when you try to teach something to others. In general, have the person that seems to know least try to do the teaching. If you understand the info, you can guide your study partner most effectively by asking questions and having them figure out, sometimes with strong hints, how it works. Allow them to teach you. Listen for info that is inaccurate , incomplete or unclear. Be especially careful to check on meanings of words. Change lab study partners occasionally. It increases your opportunities to see the information through the eyes of your numerous classmates.

- Be willing to ask questions. Question-asking is a skill, and like other skills, you get better at it with practice. Feel free to approach Prof. Symmons with questions. Questions are important because they indicate what you don't know, yet they are rooted in what you do know. It's that cutting edge where the learning occurs. Real success comes when you know what you know, and know what you don't know. To be a successful graduate of CSUEB, you will need to know how to find information you don't now know. So, with that understanding, you may be asked to say where you have already looked to find an answer. There is joy in finding answers, especially on your own, but an active effort is needed, and it's essentially asking a question. Cultivation of question-asking skills is a goal Prof. Symmons has for his lab sections.

- You will be asked to be able to make simple mathematical calculations that will allow you to convert units of measurement between the U.S. system and the Metric system. You should be

able to do the conversions without reference to any table of equivalents. All you would need would be 3 small bits of information that you will memorize; some of you already have some of the equivalents embedded in your brain. Many of you will be doing these kinds of calculations on a regular basis in your career work, and there is a need to be proficient in these, without errors, particularly DECIMAL errors. Each quiz will probably have at least one calculation problem to solve. A decimal error immediately cuts your possible score on the problem in half. Recommendation: **bring a simple calculator with you to lab**.

- The lab grade will be determined by your scores on 4 quizzes and 1 comprehensive lab practical exam. The top 3 grades on the 4 quizzes (@ 20% each) will be combined with the lab practical exam (40%) to achieve a summary grade for the lab section. The lab grade is submitted to your lecture instructor who tallies that grade with your other grades to achieve a combined grade for the course. Incidentally, you must obtain a passing grade in lab to pass the course, since it's not possible to award 5 units of credit while only successfully completing 4 units of work. A "passing grade" is a "D-minus".

    - 3 quizzes (@ 20% each) = 60% of the lab grade, plus...
    - Practical Final (@ 40%) = 40%
        - Grand total = 100%

- The quizzes will be announced by the lab instructor during the lab session the week prior to the quiz. For Quiz 1, 2, 3 & 4, your **lowest score of the 4 will be dropped**. If you miss a quiz due to absence, that becomes your lowest score. If you miss a second quiz, that's an automatic "F" for that quiz. No makeup quizzes are given. Each quiz will take about 30 minutes, maybe a bit longer to allow for some students who have time issues. You will be provided frequent updates about how much time remains. **Quizzes are given at the beginning of the period**, so if you arrive late on a quiz day, you simply lose that amount of time to complete the quiz.

- In lab, **the class curve** can be described as a top-heavy distribution, with about 2X as many A's and B's as there are D's and F's. To be out of the "D" range on any given quiz, a score of 50% correct is expected.

- Prof. Symmons will make every effort to squeeze the best LAB GRADE possible from the results you've produced.

PROPOSAL FOR LOWER DIVISION GE SCIENCE REQUIREMENT

NATURAL SCIENCES (B2)

PROPOSED COURSE: PSYC 1005: (INTRODUCTION TO PSYCHOLOGY for the Healthier Living Cluster)

DEPARTMENT: PSYCHOLOGY

DATE: 4-18-2007

Proposal Requirements:

1. Course Syllabus (please see enclosed copy)

2. Narrative Description:

Students should be able to demonstrate broad science content knowledge in the life sciences and be able to describe fundamental concepts in the life sciences that distinguish them from the physical sciences.

Psychology 1005 is a survey course of the entire field of psychology that includes broad content from both the social sciences and the life sciences. Much emphasis is placed on the physiological basis of behavior, and the evolution of physiological structure and behavior throughout the animal kingdom. The structure of the brain and nervous system is dealt with in regard to the areas of perception, learning, states of consciousness, human development, emotion, personality, psychopathology, etc. These areas will be examined with special attention as to how these concepts and theories are related to physical and emotional health.

Assessment of knowledge of these topics will be done by class exams.

Students should be able to demonstrate the application of quantitative skills (such as statistics, mathematics, the interpretation of graphical data, etc.) to life sciences problems.

The course begins with a section on Research methods, including statistical analysis. Data are consistently presented in graphical form and students are expected to interpret these graphs.
Student's ability to understand statistical concepts and interpret graphs will be tested in class exams.

Students should be able to demonstrate a general understanding of the nature of science, the methods involved in scientific investigations, and the value of those

methods in developing a rigorous understanding of (living systems?) Students should be able to identify the difference between science and other fields of knowledge. Students should be able to distinguish science from pseudoscience.

The scientific method is emphasized in Psychology 1005, and there is constant attention paid to the value of this method in contrast to the more traditional ways of thinking about human behavior and perception. Different types of research methodologies used to conduct scientific experiments are dealt with.

Belief in pseudoscience is possibly more prevalent regarding the subject matter of psychology than in any other natural science. Psychology 1005 deals with these beliefs directly; for example the section on Sensation and Perception deals with the topic of extra-sensory perception.
Students understanding of these issues will be tested in class exams.

Psychology 1005: Introduction to Psychology for Healthier Living
Spring, 2010
Instructor: Dr. Cynthia L. Barkley

Office: S. Sc. **451**
Office Phone: 885-2764
Office Hours: **W** 1:15-3:15 pm and **F** 1:15-2:15pm (no office hours Mondays)
Mailbox: Psychology Dept. Office (S.Sc. 229)
E-mail: cynthia.barkley@csueastbay.edu (include Psychology 1005 in the subject line of all e-mail).
Simulations ***may not*** be turned in via e-mail. I will not accept any simulations during finals week.

Course Texts: Introduction to Psychology, Coon and Mitterer, 12th edition and psyk.trek CD –edition 3 – Wayne Weiten (these are packaged together in the bookstore.)

Blackboard: Study-guides for exams, links to outside reading assignments and lecture notes are available only electronically on Blackboard. We will discuss this further in class. However, be aware that you must be able to access this site in order to print out these materials. Additionally, changes to the schedule will be posted as announcements on our class blackboard site. Be sure to check these announcements regularly.

There will be 3 exams: 2 midterms and a final. There will be several 'simulation' assignments from your Psyk.Trek. CD.

Topics and assignments (by week). Note schedule it tentative and open to revision.

March 29 – Introduction and Research Methods: Chp. 1 **Note – we will meet only on Monday of this week. Wednesday is a University holiday (Ceasar Chavez Day) and Friday I will have a furlough day.**

April 5 –Research methods continued, Brain and Behavior and Sensation: Chps. 2 & 4 and Specter, M. (2001) Rethinking the brain; How the songs of canaries upset a fundamental principle of science. The New Yorker, 42-53. **Sim 1 & 2.**

April 12 – Sensation. Chp. 4 **Sim 3**.

April 19 – Review, Exam 1 and Perception and Conditioning and Learning. Chap. 5and 7 and pages 578-584, **Sim 4**.

April 26 – Memory and States of Consciousness, Chp. 8 & 6. **Sim 5 & 6**

May 3 – States of consciousness continued and review:

May 10 – Exam 2 and Intelligence. Chp. 9

May 17 – Development: Chap. 3.

May 24 – Social Psychology: Chap 16 & 17. **Sim 10 Note, I have a furlough day on Friday May 28th.**

May 31 – Abnormal Psychology and Review: Chap. 14, **Sim 9. Note – we will only meet Wednesday of this week. Monday is a University holiday (Memorial Day) and I have a furlough day on Friday June 4.**

June 9 – Final Exam (at 12)

Exam Dates:
Exam 1 – Wednesday April 21
Exam 2 – Monday May 10
Final Exam –Wednesday, June 9

Exams:
You will need a #2 pencil and a Scantron form 882-E for each exam. Absence from exams must be arranged prior to the exam. There will be no make-up exams. Exams will cover material from assigned readings, films and lecture material.

Assignments:
You will be assigned several simulations from your Psyk.Trek CD. You must complete all of them to get credit for them. The due dates for the assigned simulations are the Friday of the week that they are listed on the schedule above. Simulations **MAY NOT** be turned in during finals week.

Grading:
Each exam will be worth 30% of your total grade. The simulations will be worth 10%. Grades will be calculated on percentages – 93% is the cutoff for an A, 90% for an A-, 87% for a B+ etc. I do not curve grades and I do not 'assign' grades – you earn your grades. Note, an incomplete in this class is only given in the case of a failure to complete your subject participation or a documented emergency (ie. illness with doctors note). An incomplete will not be granted to avoid a failing grade. The time to fix a failing grade is after the first exam where you do not as well as you would like. Please see me with concerns about your grade as soon as possible.

Lecture notes:
As a courtesy for you, I will have outlines of my lecture notes (excluding overheads of copyrighted material) online at the blackboard site for this class. Try and print and read these notes before class.

Films
There will be several films seen in class. These will be shown as convenient to me, and thus are (mostly) unannounced. There will be questions from these films on the exams, and we may not discuss them in class prior to the exam. Regular attendance in class is strongly advised.

In order to receive a grade in this course:
To get a fuller flavor of Psychology as an experimental science, one must have some direct contact with ongoing research. Consequently, as part of the requirements for this course, you will participate as an experimental subject. If you do not complete this requirement you will receive an **Incomplete** in the course. If your grade at this point is a D or F, you will receive the grade rather than an Incomplete. You will be provided with a yellow "Research Participation and Reminder" sheet. Each time you participate, the experimenter will sign your yellow sheet and indicate the number of hours earned. At the end of the term, a list of students who have not completed the participation requirement will be posted. Your yellow sheet is your receipt. If there is a discrepancy between the department's record of your participation and your actual participation, you will need your yellow sheet to verify your participation. Sign-up sheets for experiments are located on the bulletin board outside South Science 236. Additional details regarding participation in experiments will be provided by the Subject Pool Coordinator during the second week of class. Please be certain to attend on this day failure to do so may mean you miss critical information on this part of your course requirements.

Misc: -The best predictor of final grades in my classes is attendance. Students who do not attend my classes do not do well. You must be here if you wish to succeed. Occasionally I find it necessary to send you information by e-mailing through blackboard. Be sure you check your horizon e-mail account regularly.

Class policy on plagiarism
Duplication of any material from another written work that is not in quotations is plagiarism. Plagiarism is cheating, and therefore, any instance will be considered grounds for an F in this class. This includes copying anyone else's simulations. Cheating during exams will be grounds for an automatic F in the class.

Learning Objectives:
In this cluster class, we will be emphasizing the application of psychology towards healthier living. Towards this end, we will be emphasizing within each chapter how the understanding of how your brain and mind works is essential for understanding how to live a healthier life, physically and emotionally. We will also be highlighting the role of the nervous system, learning, hormones and emotion in prevention of illness.

During the course of this term, you will come to understand the research methods involved in the study of psychology. You will learn to critically analyze research in a variety of life and social sciences. You will learn to analyze the arguments presented by the author of a study, examine the methods and their appropriateness to the argument and to determine whether the methods can support a causal inference. You will learn the difference between correlational and experimental research. You will also learn the limits of generalization to the population being studied. You will also learn to interpret basic graphs of correlational and experimental designs. You will further gain insight into how research in psychology is conducted by participating in research studies being done in the psychology department.

You will also learn basic neuroanatomy. You will learn the names and functions of the lobes of the cortex and some of the sub-cortical structures. You will learn how neurons function and propagate neural signals. You will learn what the effects are on the nervous system of some of the common drugs of abuse. You will learn how external stimuli (light, sound, touch, smell, taste) are transformed into neural signals and processed by the nervous system to become what we experience as perception.

You will learn how learning occurs and what the underlying changes look like in the nervous system as you learn. You will learn how memory works and what things you can do to improve your processing of incoming information, retention of that information and your recovery of that information in both academic and non-academic settings.

You will learn about the stages of sleep and sleep disorders. You will learn about development: physiological development, emotional development and cognitive development. You will learn how genetics and hormones affect developmental processes.

You will learn about psychological disorders: their symptoms, treatments and what is known about their causes.

Assessment in this class of these objectives will be done by multiple-choice exams. In addition, to understand some of the major studies in psychology, you will be expected to turn in the output from several simulated experiments from the cd included with your textbook. These experiments are some of the critical ones in psychology that emphasize things like how easy it is to plant fake memories, what shaping an animal to engage in a target behavior looks like, and how handedness affects processing of spatial information.

Application for General Education Credit
for Lower Division Physical Science (Area B1)

Course Title: General Chemistry I **Course number:** CHEM 1101

Courses approved for general education credit must provide students with explicit instruction in the approved student learning outcomes. Please be as specific as possible in your explanations, describing topics, readings, assignments, activities and assessments that illustrate how the course supports students' acquisition of the learning outcomes. Remember, there may be no one on the review committees who has any knowledge of your discipline. Attach the course syllabus and any assignments and/or assessments needed to support your explanations.

Please use this template to address ALL of the following learning outcomes.

Purpose of Science GE: The goal of lower division general education in the natural sciences is to gain basic knowledge and learn key principles in the life and physical sciences as essential for an informed citizenry. In addition, students should recognize the experimental and empirical methodologies characteristic of science and understand the modern methods and tools used in scientific inquiry.

1. Students will demonstrate broad science content knowledge in the physical sciences such as the nature and structure of matter, Earth's place in the Universe, or the conservation of energy and matter.

In CHEM 1101 students gain an understanding of the nature of matter in terms of the atoms and molecules of which it is composed. They learn what situations induce changes in matter through chemical reactions and how energy is consumed or released in the process. They develop an understanding of how chemicals dissolve in water or other liquids and learn what types of chemicals make up acids and bases. Each of these concepts is addressed and reinforced through lecture explanations, demonstrations, problem solving and laboratory experimentation.

2. Students will demonstrate the application of quantitative skills (such as statistics, mathematics and the interpretation of numerical graphical data) to physical science problems.

Chemistry requires calculations of various types, e.g. in chemical equations, solubility problems and graphical representations. The field is particularly rich in quantitative applications. Students demonstrate their acquired skills both in laboratory experiments and in several hundred problems assigned in lecture.

3. Students will demonstrate a general understanding of the nature of science, the methods applied in scientific investigations, and the value of those methods in developing a rigorous understanding of the physical world. Students should be able to identify the difference between science and other fields of knowledge. Students should be able to distinguish science from pseudoscience.

CHEM 1101 introduces students to the scientific method. The course provides many examples of how chemical science has progressed through the process of developing hypotheses to explain chemical phenomena, then testing them rigorously before either advancing them to the level of viable theories or rejecting them as untrue. In the laboratory the students are frequently introduced to a hypothesis, given a suggested method for testing it and asked to draw their own conclusions in lab reports. They become familiar with the concept of a "controlled experiment" where all the variables are held constant except the one to be tested. The idea of rigorous and controlled testing learned in chemistry can be applied later in life when judging the likely truth of scientific claims of various types.

Chemistry 1101
General Chemistry
Dr. Danika LeDuc

Department of Chemistry & Biochemistry
California State University, East Bay
Fall 2010

REQUIRED COURSE INFORMATION

Instructor: Dr. Danika LeDuc
Office: Science S 432
E-mail: danika.leduc@csueastbay.edu
Phone: (510) 885-3463
Lecture Hours: MWF 12:00 – 12:50 p.m. in VBT124
Office Hours: MW 1:15 – 2:15 p.m., F 10:30 – 11:30 a.m., and by appointment

Course Materials: Your choice of bound notebook
Your choice of safety goggles with side shields

Lecture text options -

1)The bookstore will be offering custom editions of Chemistry, A Molecular Approach by Tro Revised 2nd edition split into 3 versions for each of the 3 quarters (1101, 1102, 1103) that comes with the online homework system (www.masteringchemistry.com, Course ID MCLEDUC13579, zip code = 94542).

2) You could buy a complete version of the book. If it does not come with the online homework system, you must buy access to the homework system. This homework system will be good for two years from time of purchase.

3) You could get an e-book version of the entire book that includes the homework system.

4) You could just get the homework system and use the books on reserve at the library.

Lab text options:

1) The bookstore offers Chemical Principles in the Laboratory, by Slowinski and Wolsey 9th Ed. used all 3 quarters (1101, 1102, 1103).

2) You can buy the experiments individually off ichapters.com and print them out using this link:
http://www.ichapters.com/market/isbn.html?isbn=0495112887&cid=D2S

3) Lab manuals will also be available in the library.

Grade Determination:

Homework	60
ASAs	55
Lab Reports	180
Lab Notebook/Safety	20
Quizzes	120
Midterms	200
Final Examination	200
Total	835

Final grades are assigned based on total points accumulated. Students earning similar point totals will receive similar letter grades.

Chemistry 1101
General Chemistry
Dr. Danika LeDuc

Department of Chemistry & Biochemistry
California State University, East Bay
Fall 2010

Steps for Success:

1) Read relevant sections in the text before the lecture on the material. That way, the lecture will have context, and you can ask questions as they arise.
2) After reading the section, do the example and practice problems at the end. The more problems you do, the better prepared you will be.
3) Seek help when you need it – hints for on-line homework, office hours, tutoring, and study groups are all great resources!
4) Chem 1111 is being offered this quarter. This is a facilitated group problem solving session with worksheets that follow the lecture prepared by me and with a successful former student helping you when needed it. If you are interested, register now!
5) When you have finished reading the chapter, go through the "Chapter in Review" section. Make sure you know all the meanings of the "Key Terms" – you may want to draw a concept map to give yourself a visual picture of how the terms are related.

Suggested Additional Practice Problems (not to be turned in):
Chapter 1:**33, 35, 37, 39, 41, 43, 45, 47, 49, 57, 65, 67, 71, 73, 77, 79, 83, 97, 99, 105, 121, 125**
Chapter 2:**33, 35, 37, 39, 41, 43, 45, 49, 63, 65, 67, 71, 73, 75, 77, 81, 85, 99, 103, 109, 113, 115**
Chapter 3:**25, 27, 29, 31, 37, 39, 41, 45, 47, 49, 53, 59, 67, 73, 75, 79, 85, 95, 97, 99, 115, 125**
Chapter 4:**29, 39, 49, 51, 59, 61, 63, 67, 69, 71, 77, 81, 83, 85, 91, 99, 101, 107, 109, 111, 119**
Chapter 5:**33, 35, 37, 39, 45, 49, 53, 55, 57, 59, 61, 63, 71, 73, 77, 79, 85, 93, 105, 109, 121, 145**
Chapter 6:**33, 35, 37, 39, 43, 53, 55, 61, 63, 65, 67, 69, 75, 77, 83, 93, 111, 113, 115, 129, 131**

Course Policy:
Homework: Homework must be submitted on-line using the MasteringChemistry website. Points will be deducted from late homework assignments (10%/day). Students whose documented disability prevents them from using this program should make separate arrangements with me.

Lab: Lab attendance is mandatory. Completion of the laboratory portion of the course is mandatory in order for a student to receive credit for the course. Advance Study Assignments (ASA's) are due in lab the day of the experiment. Experiments should be completed on time, and lab reports should be submitted to the instructor either at the end of the lab session (strongly encouraged!) or at the beginning of the next lab period. Points will be deducted from late laboratory reports (10%/day). No grade is assigned in lab. The total number of points is carried over to the lecture, and the lecture instructor assigns grades. The lecture instructor reserves the right to adjust student laboratory points to a common average in order to compensate for variation in lab instructor point assignment.

Students who miss an experiment should consult with their lab instructor immediately upon their return to class, if not earlier. If a valid excuse is discussed with the instructor, the student may be granted credit for the experiment if calculations can be completed on substitute data. The Advance Study Assignment should be done and handed in late. If the absence is not excused, zero points will be assigned for the experiment. Quizzes missed for an excused absence will be assigned the average of the student's other quiz scores. If the absence is not excused, zero points will be assigned for the quiz. *A maximum of one absence can be excused for the quarter.*

Chemistry 1101 Department of Chemistry & Biochemistry
General Chemistry California State University, East Bay
Dr. Danika LeDuc Fall 2010

A Laboratory Notebook is required for Chem 1101 and should be brought and used to every experimental session in Chem 1101. This same notebook can be used for Chem 1102 and 1103.

General Notebook Requirements:

1. You may use any bound notebook comprised of lined pages.
2. All entries in the notebook should be made in black or blue pen.
3. Any mistakes or errors should be crossed out with a single line.
4. Reserve the first few pages for a Table of Contents.
5. If your notebook doesn't have numbered pages, number them in a consistent corner.

Before the experiment write:

1. Name and date of the experiment.
2. Title and purpose of the experiment. (1 –2 sentences)
3. Flow chart of experimental procedure. (A **brief** plan of what you will do in lab)

During the experiment write:

1. Observations, data, calculations, and any deviations from your experimental plan.

After the experiment write:

1. Conclusions drawn from the results of the experiment. (1 – 2 sentences)

Notebooks will be collected during the last week of classes (11/29) and returned at the final lab session. Please discuss your notebook with your lab instructor during the quarter if you have any questions about grading.

Safety goggles with side shields are required whenever experimental work is being conducted. You are responsible for purchasing your own goggles. You may wish to store them in your laboratory locker so you won't forget them. You are expected to follow the laboratory safety rules discussed during lab check-in at all times throughout the quarter.

Exams: Examinations must be taken as scheduled. If for some reason beyond your control you cannot take an exam on time, please contact me and present an excused absence upon return to class. An unexcused missed exam will receive a failing grade.

Disability: If you have a documented disability and wish to discuss your approved academic accommodations, or if you would need assistance in the event of an emergency, please make an appointment to meet with me to discuss this as soon as possible.

Academic Dishonesty: Please review the policy concerning academic dishonesty in the university catalog. Students found guilty of cheating on an exam or quiz or submitting work other than his/her own will receive an F for that work, and an "Academic Dishonesty Incident Report" will be filed with the Academic Affairs Office. The student will receive a copy of the report.

Chemistry 1101
General Chemistry
Dr. Danika LeDuc

Department of Chemistry & Biochemistry
California State University, East Bay
Fall 2010

September		
Monday	Wednesday	Friday
	22 *Lab:* Check-in, Safety *Lecture:* Course Introduction	24 *Lecture:* Physical and Chemical Changes, Energy *Reading:* 1.1 – 1.5
27 *Lab:* 1 – Densities On-line HW workshop *Lecture:* Measurements and Problem Solving *Reading*: 1.6 – 1.8	29 *Lab:* 3 - Fractional Crystallization *Lecture:* Atomic Theory *Reading*: 2.2 – 2.4 **Homework 1**	
October		
		1 *Lecture:* Atomic Structure and Subatomic Particles *Reading:* 2.5 – 2.6 **Homework 2**
4 *Lab:* **Quiz 1 –Chapter 1** *Lecture:* Periodic Table; Molar Mass *Reading:* 2.7 – 2.9	6 *Lab:* 3 - Fractional Crystallization, continued *Lecture:* Chemical Bonds; Chemical Formulas *Reading:* 3.2- 3.4 **Homework 3**	8 *Lecture:* Naming Compounds *Reading:* 3.5 – 3.6 **Homework 4**
11 *Lab:* **Quiz 2 – Chapter 2** *Lecture:* Formula Mass; Chemical Composition *Reading:* 3.7 – 3.8	13 *Lab:* 4 – Determination of a Chemical Formula *Lecture:* Chemical Formulas and Equations *Reading:* 3.9 – 3.10 **Homework 5**	15 *Lecture:* Stoichiometry *Reading:* 4.2 **Homework 6**
18 *Lab:* **Quiz 3 – Chapter 3** *Lecture:* Limiting Reactant, Theoretical and Percent Yield *Reading:* 4.3	20 *Lab:* 5 – Identifying Compound by Mass Rel. *Lecture:* Exam Review *Reading:* Chs. 1 –3	22 *Lecture:* **EXAM 1** *Reading:* Chs. 1 – 3
25 *Lab:* 6 – Properties of Hydrates *Lecture:* Solutions and Solubility *Reading:* 4.4 – 4.5	27 *Lab:* 7 – Analysis of an Unknown Chloride (Handout) *Lecture:* Precipitation Reactions *Reading:* 4.6 **Homework 7**	29 *Lecture:* Ionic and Net Ionic Equations *Reading:* 4.7

November		
1 *Lab:* 18 – Non-metals and their Compounds *Lecture:* Acid-Base and Gas-Evolution Reactions *Reading:* 4.8	3 *Lab:* 12 – Alkaline Earths and Halogens (Handout /No ASA) *Lecture:* Oxidation-Reduction Reactions *Reading:* 4.9	5 *Lecture:* Gas Laws *Reading:* 5.2 – 5.3 **Homework 8**
8 *Lab:* **Quiz 4 – Chapter 4** *Lecture:* Ideal Gas Law *Reading:* 5.4 – 5.5	10 *Lab:* 24a – Standardization of a Basic Solution (Handout) *Lecture:* Exam Review *Reading:* Ch. 4	12 *Lecture:* **EXAM 2** *Reading:* Ch. 4
15 *Lab:* 30 - Determination of Iron – A Redox Titration* *Lecture:* Partial Pressures; Stoichiometry *Reading:* 5.6 – 5.7	17 *Lab:* 35 – Spot Tests for Some Common Anions *Lecture:* Kinetic Molecular Theory *Reading:* 5.8 – 5.9 **Homework 9**	19 *Lecture:* Real Gases *Reading:* 5.10 **Homework 10**
22 *Lab:* **Quiz 5 – Chapter 5** *Lecture:* Energy Transformations; First Law of Thermodynamics *Reading:* 6.2	24 *Lab:* 14 – Heat Effects and Calorimetry *Lecture:* Heat and Work; ΔE for Chemical Reactions *Reading:* 6.3 – 6.4	26 *Thanksgiving Recess* *No Classes*
29 *Lab:* Checkout **Notebooks Due!** *Lecture:* Enthalpy in Chemical Reactions *Reading:* 6.5 – 6.7 **Homework 11**		
December		
	1 *Lab:* **Quiz 6 – Chapter 6** *Lecture:* Standard Heats of Formation *Reading:* 6.8	3 *Lecture:* Final Exam Review *Reading: Chapters 1 - 6* **Homework 12**
6 *Finals Week* *No class*	8 **FINAL EXAM** **12:00 p.m. – 1:50 p.m.**	

*Answer to ASA Q1 = $8\ H^+(aq) + MnO_4^-(aq) + 5\ Fe^{2+}(aq) \rightarrow Mn^{2+}(aq) + 5\ Fe^{3+}(aq) + 4\ H_2O(l)$

Application for General Education Credit
for Lower Division Physical Science (Area B1)

Course Title: Basic Chemistry I **Course number:** CHEM 1601 (CHEM 1605)

Courses approved for general education credit must provide students with explicit instruction in the approved student learning outcomes. Please be as specific as possible in your explanations, describing topics, readings, assignments, activities and assessments that illustrate how the course supports students' acquisition of the learning outcomes. Remember, there may be no one on the review committees who has any knowledge of your discipline. Attach the course syllabus and any assignments and/or assessments needed to support your explanations.

Please use this template to address ALL of the following learning outcomes.

Purpose of Science GE: The goal of lower division general education in the natural sciences is to gain basic knowledge and learn key principles in the life and physical sciences as essential for an informed citizenry. In addition, students should recognize the experimental and empirical methodologies characteristic of science and understand the modern methods and tools used in scientific inquiry.

1. Students will demonstrate broad science content knowledge in the physical sciences such as the nature and structure of matter, Earth's place in the Universe, or the conservation of energy and matter.

In CHEM 1601 (1605) students develop an understanding of the structure of matter and the relationship between matter and energy. They gain knowledge in specific areas such as the roles of protons, neutrons and electrons in the atom, chemical bonding, the nature of solids, liquids and gases, chemical reactions and their driving forces, the ability to predict chemical behavior based on the periodic table and acid and base structure. Each of these concepts is addressed and reinforced through lecture explanations, demonstrations, problem solving and laboratory experimentation.

2. Students will demonstrate the application of quantitative skills (such as statistics, mathematics and the interpretation of numerical graphical data) to physical science problems.

Early in the course students learn about measurement, units and the dimensional analysis approach to converting units. Students become skilled at using a calculator and reporting their results with the correct number of significant figures. They derive the ideal gas law equation and carry out calculations to predict changes in gases. They learn to balance equations and make predictions about quantities of reactants and products. Graphing exercises are carried out in the laboratory portion of the course. Students use logarithmic relationships in the calculation of pH of solutions.

3. Students will demonstrate a general understanding of the nature of science, the methods applied in scientific investigations, and the value of those methods in developing a rigorous understanding of the physical world. Students should be able to identify the difference between science and other fields of knowledge. Students should be able to distinguish science from pseudoscience.

The scientific method is presented and used often. Students learn not to accept conclusions on surface value, but to seek answers as to why we believe those conclusions to be valid. For example, when studying atomic theory, students learn the important differences between the idea of the atom as presented by early Greek philosophers, and Dalton's atomic theory which is based on experiment. They see that often hypotheses are shown to be incorrect when they are not consistent with all experimental facts. Students learn to examine data and critically evaluate whether conclusions are justified. Pseudoscience and incorrect hypotheses are exposed when conclusions are not supported by experimental data.

CALIFORNIA STATE UNIVERSITY, East Bay
Department of Chemistry

Chemistry 1605
Dr. Al Baecker
preston.baecker@csueastbay.edu
Science S402, (510) 885-4528
Office Hours: T/Th 2-2:40pm

Fall Quarter, 2010
Lecture Schedule
TTh 12:35-1:50 p.m.
Meiklejohn 20178

Text: Introduction to General, Organic and Biochemistry, by F.A. Bettleheim, W.H. Brown, M. K. Campbell and S. O. Farrell, 9th Edition, Thomson-Brooks/Cole, 2007. [ISBN: 0-495-39112-3]

Lab Manual: Laboratory Manual for General, Organic and Biochemistry by S. Selfe, 2nd Edition, W.H. Freeman and Company, 2006. [ISBN 0-7167-6166-1]

Date	Topic	Chapter*
Th Sept. 23	Introduction; Matter, Energy and Measurement	1, Appendix I
T Sept. 28	Matter, Energy and Measurement	1, Appendix II
Th Sept. 30	Matter, Energy and Measurement / Atoms	1, 2
T Oct. 5	Atoms	2
Th Oct. 7	Atoms	2
T Oct. 12	Chemical Bonds	3
Th Oct. 14	Midterm Exam I	-
T Oct. 19	Chemical Bonds	3
Th Oct. 21	Chemical Bonds / Chemical Reactions	3, 4
T Oct. 26	Chemical Reactions	4
Th Oct. 28	Chemical Reactions	4
T Nov. 2	Reaction Rates and Chemical Equilibria	7

Date	Topic	Chapter*
Th. Nov. 4	Reaction Rates and Chemical Equilibria	7
T Nov. 9	Acids and Bases	8
Th. Nov. 11	Midterm Exam II	-
T Nov. 16	Acids and Bases	8
Th. Nov. 18	Acids and Bases / Gases, Liquids and Solids	8, 5
T Nov. 23	Gases, Liquids and Solids	5
Th. Nov. 25	THANKSGIVING HOLIDAY – University Closed	
T Nov. 30	Solutions and Colloids	6
Th. Dec. 2	Solutions and Colloids	6

FINAL EXAM: Tuesday, December 7, 12:00-1:50 p.m.

*See Text

Grading Policy

Point Distribution		**Tentative** Letter Grade	
Midterm Exam I	100 points	90 – 100%	A
Midterm Exam II	100 points	80 - 89%	B
Take Home Quizzes	50 points	60 - 79%	C
Final Exam	100 points	45 - 59%	D
Laboratory Write-ups	100 points	Below 45%	F
Total	450 points		

Course Policy

Two midterm exams and a final exam will be given on the days indicated on the course schedule above. These will cover lecture material and problems assigned by the instructor. **There will be no make-up exams.** If an exam is missed due to illness and **a written excuse from a doctor** is presented to the instructor, the score earned on the subsequent exam will be counted doubly in the final grade tabulation.

The way to succeed in Chemistry is obviously to study but also to **work lots of problems**. Problems from the text that are relevant to the material covered in lecture will be assigned on a regular basis. These homework problems will not be collected but similar problems will appear on the exams and quizzes so it will be to your advantage to work as many as possible.

There will be 6-8 Take Home Quizzes, worth 5-7 points each. These will consist of questions and problems similar to those assigned as homework. The quizzes will be due on specific dates and **will not be accepted late**. The purpose of the quizzes is to help you keep up on the material and prepare for the exams. The quizzes are open book and may be discussed with your classmates. However, do not simply copy someone else's answers and turn that in as you will not benefit from the learning process.

If you have a documented disability and wish to discuss academic accommodations, or if you need assistance in the event of an emergency evacuation, please contact the instructor as soon as possible.

Laboratory Policy

The laboratory sessions are designed to give you "hands on" experience. In order for you to benefit from this opportunity you must be present in the labs and thus, attendance at all lab sessions is mandatory. Normally you will work with a lab partner. Lab report sheets are found at the end of each experiment in the Lab Manual. These include spaces for Data, Results and the answers to Questions. The lab report sheets should be completed and turned in to the lab instructor for grading; they are due one week after the experiment is performed, at the beginning of the next lab period. Each person is responsible for writing his or her own lab report. However, it is okay to discuss the results and questions with your lab partner or others in the lab before doing the write-up. The points assigned for each lab report are given below. **You must pass the laboratory portion of the class in order to receive a passing grade in the course.**

There will be no make-up labs. If **one** lab session is missed for a **valid reason**, and the lab instructor agrees, it may be possible to earn some of the lab points for that experiment by getting data from a partner and doing the lab report. If more than one lab session is missed **for any reason**, zero points will be assigned for the missed experiment(s).

Engineering 1011
Engineering: An Introduction

Professor David Bowen
(510) 885-4483
david.bowen@csueastbay.edu
Office: Rm 227 Valley Business & Technology Center
Office Hours: Mon 3:50-5:50pm; Wed 3:50-4:50pm

Course Description:

Introduction to the engineering profession and creative engineering problem-solving through hands-on design projects, presentations, and activities. An introduction to various engineering disciplines. Issues such as sustainability, optimal use of resources, design for manufacturability, design for reuse and logistics are considered.

WEEK	DATE	DAY	TOPIC/ACTIVITY/LAB
1	3-Jan	M	Intro
1	5	W	Measure Challenge
2	10	M	Design General
2	12	W	Design
3	17	M	MLKJr - HOLIDAY
3	19	W	Design (Written Design Plans)
4	24	M	Design (Competition)
4	26	W	Excel (Introduction)
5	31	M	Sustainability (Footprint)
5	2-Feb	W	(Re)Design
6	7	M	Midterm
6	9	W	(Re)Design
7	14	M	Excel (College Rankings)
7	16	W	Function-Means Applications
8	21	M	Bridge Modeling Force Software
8	23	W	Electronics/Logic
9	28	M	Access Database Creation
9	2-Mar	W	Engineering Ethics
10	7	M	Presentations
10	9	W	Presentations

Grading

Labs/activities 20%
Presentation 20%
Midterm 25%
Final 35%

Text

Engineering Design: A Project-Based Introduction, 3rd Edition
By Clive L. Dym and Patrick Little, John Wiley & Sons, 2009.
ISBN 978-0-470-22596-7

CALIFORNIA STATE UNIVERSITY, HAYWARD

Effective Date:
Quarter: **Fall**
Year: **2007**

REQUEST TO APPLY COURSE TO G.E. OR CODE REQUIREMENTS

1. Alphabetical **prefix** in capital letters, **number**, full **title**, and **unit** value of course.
   ENGR, 1011, Introduction to Engineering, (3), Two hours Lecture 3 hours Lab.
   Course Description.

   Introduction to Engineering (3)
   This course introduces students to the engineering profession and creative engineering problem-solving through hands-on design projects, presentations, and activities. It will familiarize students with various engineering disciplines and will discuss the engineering design process. The course will analyze the effect of engineering design choices on sustainability and other environmental issues. Efficient use of resources in engineering designs, the concepts of design for manufacturability, design for reuse and logistics of recycling will be explored.

2. **G.E. Requirement** or section of **Code Requirement** to which assignment is requested.
   Apply the course to natural science G.E. area B3 requirement.

   Justification for requested G.E. or Code assignment.

   The course satisfies the requirements for area B5. An introduction to various engineering disciplines is given. Students work on introductory engineering design projects and get exposed to real world constraints and effects of design choices on cost, time, and the environment. Environmental issues resulting from engineering projects are explored. Sustainability and design for reuse will be discussed. This course is proposed as part of the Healthier Living Cluster for Engineering Students.

3. **Other courses** in the department meeting **this** G.E. or Code requirement.
   NA

4. Certification of **chair of faculty review body**

   Chair: _____ Date: _____

   Certification of **school approval** by the dean.

   Dean/Associate Dean: _____ Date: _____

CALIFORNIA STATE UNIVERSITY EAST BAY

DEPARTMENT OF NURSING AND HEALTH SCIENCES

HSC 1100:
HEALTH: MAINTENANCE OF WELLNESS

SPRING QUARTER 2011

PROFESSOR:	Conswella M. Byrd, R.N., B.A., B.S.N., J.D., Esq.
CLASS TIME & ROOM:	Tuesdays and Thursdays, 2:00 P. M. -3:50 P.M., Room N 120 **HAYWARD CAMPUS**
OFFICE AND HOURS:	NS 152, Tuesdays and Thursdays, by appointment.
OFFICE PHONE and E Mail:	510-645-1501 email: conswella.byrd@csueastbay.edu
AVAILABILITY:	I prefer contact via email. My normal business practice is to return all calls and email within a 24-hour period. If you do not hear from me within that time, you can assume I never received your email or phone message. PLEASE TRY AGAIN.
QUARTER UNITS	Lecture, 4 Quarter Units
REQUIRED TEXTS:	"An Invitation to Health" by Dianne Hales 14th Edition **Note: "An Invitation to Personal Change Book + Labs + Journal" are only required for the Extra Credit Assignment. Only the students who have decided to complete the Extra Credit Assignment are required to purchase these books**: + "An Invitation to Personal Change" Book + Labs + Journal -- ISBN: 0495644919. One set of these books will be on reserve in the CSUEB Library.

Course Description and Objectives

This Course will provide the student with instruction on the analysis and application of the WELLNESS Concept for healthful living. Instruction in techniques and procedure for self-care, self-examination, emergency care and efficient utilization of the medical care system, will also be included. The main objective of this Course is to familiarize students with aspects of health maintenance throughout life.

Evaluation of Student Performance: Students will be evaluated on the basis of THREE (3) Exams:

(4/19/11 and 5/10/11 = 33 Points each) and the Final Exam (the date will be determined by CSUEB) = 34 Points. Examinations and Scantrons will NOT be returned to the students. However, the students may make an appointment to review their Examination and Scantron with the Professor in the Professor's CSUEB Office.

The OPTIONAL EXTRA CREDIT ASSIGNMENT Requires: Completion of the "An Invitation to Personal Change" and one (1) Mandatory Conference Meeting, and will be worth a maximum of 20 points

Instructional Methods:

Course instruction will consist primarily of in-class lectures, discussions, exercises, and reading assignments from the Textbook, handouts, postings on Black Board and other related materials. A copy of the PowerPoint Slides used in the class lecture will be posted on Black Board before each class. Students are required to complete the reading assignments, review questions and the review of the Power Point Slides before class, so that they will be able to participate in class discussions and ask questions.

Course Grade and Examination

1. The TWO EXAMS that will be worth a maximum total of 66% of the total grade.

2. The FINAL EXAMINATION will be worth a maximum of *34%* of the total grade. The FINAL EXAMINATION WILL **NOT** BE COMPREHENSIVE.

3. ALL EXAMINATIONS will be given **in class, closed books, closed notes,** and a combination of multiple choice and true or false. The Student must provide their own Brown Scantron for each Examination.

4. EXTRA CREDIT: Completion of the "An Invitation to Personal Change" and one (1) Mandatory Conference Meeting will be worth a maximum of 20 points.

5. The date and location of the FINAL EXAMINATION will be determined by CSUEB.

6. **GRADING POLICY**

GRADE		STANDARD
95 – 100 **90 – 94**	**A** **A-**	**Exceeds minimum course requirements**
87 – 89 **84 - 86** **80 - 83**	**B+** **B** **B-**	**Above minimum course requirements**

GRADE		STANDARD
77-79 74-76	C+ C	Meets minimum course requirements
70-73* 67-69 64-66 63-BELOW	C- D+ D F	Below minimum course requirements

***Grades of CR/NC follow University guidelines in the catalog. Minimum standard for a CR grade is C-.**

All other University grading standard published in the University Catalog are followed, i.e., for assignments of grades such as "I", "SP", "U", "RD", "W", "AU".

7. No late assignments will be accepted without prior approval of the Professor.

8. No "make up" work will be offered.

9. The student is responsible for turning in all assignments on time, the receipt thereof, and being prepared for all examinations.

10. The student is not required to turn in the Review Questions. No Credit will be given for the completion of the Review Questions.

Course Policies

STUDENT EVALUATION OF CLASS AND INSTRUCTOR:

Each student will be given an opportunity to complete and submit to the Health Sciences Department, a written evaluation of the class and the Professor during the ninth or the tenth week of class.

ACADEMIC DISHONESTY:

The Professor completely adopts the CSUEB policy regarding Academic Dishonesty and incorporates it in this Syllabus by reference. Health Science Professionals are required to follow a strict code of professional responsibility. They must observe the highest standards of trust, integrity, and honesty in their day-to-day activities. Health Science 1100 Students are expected to follow those same standards in this class. The Health Science 1100 Students' behavior should compare favorably to appropriate conduct in a health care setting.

Academic dishonesty of any kind, including but not limited to plagiarism, alteration of records, substitution of another''s work representing it as your own, cheating, lying, or knowingly helping another student to engage in such conduct will not be tolerated. Any type of academic dishonesty will result in an automatic failing grade for this class. In addition, such conduct will be reported to the appropriate CSUEB officials for further disciplinary action consistent with University policy.

CLASSROOM CONDUCT

To maximize the learning environment, the students and the professor will treat each another with professional courtesy and respect at all times. Foul language and disrespectful behavior will not be tolerated.

Cell phones and pagers must be turned off or kept in vibrating mode inside the classroom at all times, including breaks. Computers must have the volume turned off. **Wireless connections to email and the internet must be disabled for the duration of class, unless approved by the professor.** Any Student who violates this Classroom Conduct requirement will be required to leave the classroom immediately and their name will be reported to the Department Chair.

STUDENTS WITH DISABILITIES:
CSUEB welcomes people with disabilities and will provide reasonable accommodation upon request. Please notify the Student Disability Resource Center (SDRC) on the Hayward campus in the University Library (LL).

STUDENT CONCERNS/COMPLAINTS ABOUT GRADES: Students with concerns and/or complaints relating to grades must **first** communicate with the professor and allow the professor to settle the matter fairly with the student directly using office hours or some other appropriate means of discussion and review.

Excluding the professor from an opportunity to reach a fair settlement directly with the student is in violation of the University Policy for Fairness, Grading and Academic Standards, outlined in the University Catalog. All University policies and procedures regarding grades are followed in this course to guarantee fairness and due process. Please refer to the University Catalog for more information on the University's grading policy.

COURSE OUTLINE

Class Date	Subject	Assignment
3/28/11	Overview of Class Your Invitation to Healthy Change	Chapter 1, Class Handout on BLACKBOARD, and all Review Questions
3/31/11	**NO CLASS** **CESAR CHAVEZ DAY HOLIDAY**	**NO CLASS** **CESAR CHAVEZ DAY HOLIDAY**
4/5/11	Psychological and Spiritual Well-Being Personal Stress Management	Chapter 2 and all Review Questions Chapter 3 and all Review Questions
4/7/11	Taking Care of Your Mind	Chapter 4 and all Review Questions
4/12/11	The Joy of Fitness	Chapter 5 and all Review Questions
4/14/11	Personal Nutrition	Chapter 6 and all Review Questions
4/19/11	Managing your Weight	**EXAM #1** Chapter 7 and all Review Questions
4/21/11	Communicating and Relating	Chapter 8 and all Review Questions
4/26/11	Personal Sexuality	Chapters 9 and all Review Questions

Class Date	Subject	Assignment
4/28/11	Reproductive Choices	Chapters 10 and all Review Questions
5/3/11	Avoiding Addiction	Chapters 11and all Review Questions **DUE:** **EXTRA CREDIT ASSIGNMENT**
5/5/11	Alcohol Use, Misuse and Abuse	Chapter 12 and all Review Questions
5/10/11	Tobacco Use, Misuse and Abuse	**EXAM #2** Chapter 13, and all Review Questions
5/12/11	Preventing Major Diseases	Chapter 14 and all Review Questions
5/17/11	Avoiding Infectious Diseases	Chapter 15 and all Review Questions
5/19/11	Lowering Your Risk of Sexually Transmitted Infections	Chapter 16 and all Review Questions
5/24/11	Getting Quality Traditional and Nontraditional Health Care	Chapter 17 and all Review Questions
5/26/11	Protecting Yourself From Injury, Violence, and Victimization	Chapter 18 and all Review Questions
5/31/11	Creating a Healthier Environment	Chapters 19 and all Review Questions
6/2/11	A Lifetime of Health	Chapter 20, Class Handout on BLACKBOARD, and all Review Questions
FINAL EXAM TBA	FINAL EXAMINATION TBA	**FINAL EXAMINATION** **TBA**

OPTIONAL

HSC 1100 Extra Credit Assignment

The purpose of this Extra Credit Assignment is to encourage HSC 1100 Students to take the appropriate action to implement personal change. This Extra Credit Assignment is due and must be submitted on Tuesday, 5/3/11 in the Department Office of Nursing and Health Science.

1. All HSC 1100 Extra Credit Assignment Students must complete:
   a. One MANDATORY MEETING/CONFERENCE appointment with the Professor BEFORE THE DUE DATE OF Tuesday, 5/3/11, to discuss the Extra Credit Assignment.

      No Mandatory Meeting/Conference = No Extra Credit Assignment Accepted

   b. All assignments in The "An Invitation to Personal Change" Book and Journal
   c. In "Labs for An Invitation to Personal Change":
      Introductory Lab 1: "Choosing to Change, Choosing a Change" **plus**
      one (1) additional Lab of the student's choice.

2. No Late Extra Credit Assignments will be accepted, without prior approval of the Professor.

3. This Extra Credit Assignment is worth 20 points. However, the student may receive less than 20 points, based on the quality of their completion of the Extra Credit Assignment.

Application for General Education Credit
for Lower Division Life Science (Area B2)

Course title: **Anatomy and Physiology I** Course number: **BIOL 2011**

Courses approved for general education credit must provide students with explicit instruction in the approved student learning outcomes. Please be as specific as possible in your explanations, describing atopics, readings, assignments, activities and assessments that illustrate how the course supports students' acquisition of the learning outcomes. Remember, there may be no one on the review committees who has any knowledge of your discipline. Attach the course syllabus and any assignments and/or assessments needed to support your explanations.

Please use this template to address ALL of the following learning outcomes.

Purpose of Science GE: The goal of lower division general education in the natural sciences is to gain basic knowledge and learn key principles in the life and physical sciences as essential for an informed citizenry. In addition, students should recognize the experimental and empirical methodologies characteristic of science and understand the modern methods and tools used in scientific inquiry.

1. Students will demonstrate broad science content knowledge in the life sciences (such as cellular structure, the diversity and classification of life, or biological evolution) and be able to describe fundamental concepts in the life sciences that distinguish them from the physical sciences.

Please note: BIOL 2011 is already approved for B2 GE. These learning outcomes are provided for convenience of review.

Students will enter Biol 2011 in the winter quarter following an introduction to the chemical nature of matter in the fall quarter, having focused on molecular structure and classification, and the energetics of chemical reactions. Biol 2011 will focus on the organization of matter into the structurally functioning form that is the human being. A primary, distinguishing feature of this course is the distinctly separate study of the specific "reactions" that lead to the development of the human, but that also govern our reproduction and life processes. This is also a basic, distinguishing feature separating the life sciences from the physical sciences. Conceptually, students will understand "the cell" first as the basic unit of a living form, that there is a genetically based uniformity of life on this planet, and that although the focus will be on human anatomy and physiology—tissues, organs, organ systems, and integrative physiology of the organ systems—it is the conservation of these systems by evolutionary pressure that will be an underlying theme.

2. Students will demonstrate the application of quantitative skills (such as statistics, mathematics, the interpretation of graphical data, etc.) to life science problems.

Much understanding of human anatomy and physiology is practically aimed at "healthier living" through understanding the mechanisms of disease that lead to therapeutics, and to disease prevention. There will be emphasis on scientific methodologies, systematic observations and discussion of experiments on both humans and correlating model mammals that have been conducted by scientists to determine how the human body develops anatomically, and functions physiologically. Comparative anatomy will be invoked as possible to underscore evolutionary constraints on both structure (anatomy) and function (physiology). Students will be asked to

demonstrate understanding of quantitation as required in laboratory activities and assignments. Students will be asked to demonstrate the application of quantitative skills in the form of basic statistics to analyze experimental data for significance, mathematics, the interpretation of graphical data—as presented in lecture, practical demonstration in laboratory sections, and as reinforced in Blackboard assignments, and examination.

3. Students will demonstrate a general understanding of the nature of science, the methods applied in scientific investigations, and the value of those methods in developing a rigorous understanding of the physical world. Students should be able to identify the difference between science and other fields of knowledge. Students should be able to distinguish science from pseudoscience.

Students will be able to understand and describe the scientific method of "hypothesis formulation," followed by appropriate experimental design to test alternative hypotheses, and then survey how data are analyzed to formulate a conclusion as to whether the hypothesis is most likely "correct," or most likely "incorrect." Students will also be able to understand that the investigative nature of science can lead to conclusions that distinguish "cause and effect" *vs.* "correlation." For example, "Obesity causes diabetes" is on the surface merely an advertising claim. However, quantifying by field study the number of obese persons who also are diabetic (with perhaps an age distinction) might lead to a significant conclusion of correlation. Ultimately, through physiological and genetic studies with mouse models, it could be shown that obesity leads to the release of an individual molecule which could be a causative agent of diabetes.

Anatomy and Physiology I (Biol. 2011)

Text: Human Anatomy and Physiology, 4th Ed., Kenneth Saladin, 2004.

Lect	Date	Chap.	Tentative Lecture Topic
1	M 1.8	1	Introduction/overview; homeostasis
2	W 1.10	2	Bonding, pH, chemical reactions
3	F 1.12	2	Organic molecules; enzymes
	M 1.15		**MLK Day – No Classes**
4	W 1.17	3	Cell structure/function; diffusion
5	F 1.19	3	Osmosis; membrane transport
6	M 1.22	4	DNA-RNA-Protein synthesis
7	W 1.24	6,7	Skin & Bone – **On line quiz**
8	F 1.26	11	Skeletal Muscle
9	M 1.29	11	Skeletal Muscle
10	W 1.31	11,19	Smooth/Cardiac Muscle
	F 2.2		**MIDTERM I (Lectures 1-9)**
11	M 2.5	19	Heart Structure/Function
12	W 2.7	19	Cardiac Cycle; Mechanical/Electrical Events
13	F 2.9	20	Circulation: Blood pressure regulation
14	M 2.12	20	Circulation: Hemodynamics
15	W 2.14	22	Respiration: Mechanics – **On line quiz**
16	F 2.16	22	Respiration: O_2/CO_2 Transport
17	M 2.19	22	Respiration: Neural Control
18	W 2.21	12	Nervous System; Neurons
	F 2.23		**MIDTERM II (Lectures 10-17)**
19	M 2.26	12	Membrane Potential
20	W 2.28	12	Action Potential
21	F 3.2	12	Synaptic Transmission
22	M 3.5	13	Peripheral Nervous System (PNS)
23	W 3.7	13	PNS/Reflexes
24	F 3.9	14	Central Nervous System (CNS)
25	M 3.12	15	Autonomic Nervous System
26	W 3.14		TBA
27	F 3.16		Review for Final Exam
	W 3.21		**FINAL EXAM (2:00-3:50)**

Grades will be based upon performance on lecture exams (65% of total grade) and the lab (35% of total grade). Attendance in the laboratory is mandatory and a passing grade must be earned in the lab to pass the entire course. Lecture exam distribution: Quizzes (5%), Each Midterm (30%), Final Exam (35%). **No makeup exams will be given except in case of a medical emergency and only with appropriate documentation.** *Please bring a #2 pencil and a CSUEB Test Answer Sheet (Brown Scantron) to the midterm and final exams.*