



Substantive Change Proposal

Relocation of Biology Program & Chemistry and Physics Courses to Science Annex at 860 Atlantic Avenue

Submitted by:
College of Alameda
555 Ralph Appezato Memorial Parkway
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Submitted to:
Accrediting Commission for Community
and Junior Colleges

April 3, 2015

COLLEGE OF ALAMEDA

CERTIFICATION OF THE SUBSTANTIVE CHANGE REPORT

Date: April 14, 2015

TO: Accrediting Commission for Community and Junior Colleges
Western Association of Schools and Colleges

FROM: College of Alameda
555 Ralph Appezato Memorial Parkway
Alameda, California 94501

The Science Annex Substantive Change Report is submitted for the purpose of complying with accreditation policies and standards regarding the relocation of college programs to off-site locations.

We certify that there was participation by the College of Alameda community and accurately reflects the nature and substance of this institution. The report was prepared by Timothy Karas, Accreditation Liaison Officer.

Peralta Community College District

Signed:

Dr. José M. Ortiz

Chancellor

Meredith Brown

President, Board of Trustees

College of Alameda

Signed:

Dr. Joi Blake

President, College of Alameda

Timothy Karas

Accreditation Liaison Officer
Vice President of Instruction

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A. Description of and Justification for the Proposed Change

College of Alameda has transitioned the Biology, Chemistry, and Physics Programs from the main College Campus to a refurbished building at 800 Atlantic Avenue in Alameda. The program now has vastly improved facilities providing students with an expanded program, including access to additional laboratory space, new technology, tools, and equipment necessary to teach students in various facets of the sciences. This proposal is intended to officially transfer the program's accreditation status from an on-campus program to an off-site location.

As part of the College's Educational and Facilities Master Plan, the vision is to build a new science facility on the main College campus. These programs will remain at the off-site location until resources are identified to plan and construct the new facility.

B. Program Description

The Biology program is a comprehensive, two-year program designed to prepare students for transfer (general education) or degree opportunities. Students may opt to complete an associate in science degree in Biology.

The Chemistry and Physics programs offer coursework towards general education requirements for Associate and Bachelor degrees. Neither department offers specific certificate or degree programs.

In the Physics Department at College of Alameda, conceptual understanding, problem-solving, and laboratory exercises are well integrated in the curriculum. You will spend time working with other students in class, discussing physics concepts and solving problems together.

At the Science Annex only courses in the sciences are offered. General Education courses are offered at the main campus. For students in the Biology program of study their major requirements are taken at the science annex with the remaining portion of the programs general education requirement taken at the main campus. It is a limited number of courses that are offered at this location.

Coursework in the disciplines of Biology, Chemistry and Physics are taught at this location. Specific courses offered on 2014-15 are:

Subject	Catalog	Descr
BIOL	2	HUMAN ANATOMY
BIOL	4	HUMAN PHYSIOLOGY
BIOL	10	INTRO TO BIOLOGY
BIOL	11	PRIN OF BIOLOGY
BIOL	1A	GENERAL BIOLOGY
BIOL	1B	GENERAL BIOLOGY
CHEM	1A	GENERAL CHEMISTRY
CHEM	1B	GENERAL CHEMISTRY
CHEM	30A	INTRO GENERAL CHEM
CHEM	30B	INTRO ORGAN/BIOCHEM
CHEM	50	BEGINNING CHEMISTRY
PHYS	4A	GEN PHYSICS W/CALCULUS
PHYS	4B	GEN PHYSICS W/CALCULUS
PHYS	4C	GEN PHYSICS W/CALCULUS

C. Description of the planning process which led to the request for the change: Mission and Rationale

Currently there is an unprecedented need for science courses. Student demand for courses in the sciences has far-outstripped the College capacity to offer additional sections. The need continues to grow as students need to meet general education requirements in the sciences.

The College's mission statement has served it well for many years. The College mission statement underwent a thorough review in 2009 and has been methodically reviewed by the College to affirm the mission, vision and values. The mission, vision and values statements were reaffirmed most recently in fall 2014 during the College convocation days and approved by College Council in October 2014. The mission statement prioritizes the learning and success of the College's diverse student population, which is elaborated on pages 12 to 14 in the College Catalog and College webpage. [REF: [College Catalog- 2014-15](#); [College Webpage- Mission](#)]

The College's mission statement is as follows:

The Mission of College of Alameda is to serve the educational needs of its diverse community by providing comprehensive and flexible programs and resources that empower students to achieve their goals.

The Biology, Chemistry, and Physics disciplines are the center stone of the science curriculum at the College of Alameda. Courses offered through these disciplines contribute the majority of opportunities to students to complete general education requirements in the

physical and biological sciences. Below is an illustration from the 2014-2015 College Catalog of general education requirements.

Area 5—Physical & Biological Sciences

Complete at least 2 Courses: one course from Group 5A, the Physical Sciences and one course from Group 5B, the Biological Sciences. At least one of the courses must include a laboratory (L)- or one course from Group C: (7–9 Semester Units Or 9-12 Quarter Units)-

Group 5A: Physical Sciences:

Astronomy 1;
Chemistry 1A(L), 1B(L), 30A(L)**, 30B(L)**, 50(L);
Geography 1;
Geology 10;
Physics 4A(L), 4B(L), 4C(L), 10**

Group 5B: Biological Sciences:

Anthropology 1;
Biology 1A(L), 1B(L), 2(L), 4(L), 10(L)**, 11**

Group 5C: Laboratory Science Requirement:

Geography 1L
Anthropology 1L

As part of the College's Facility Master Plan in 2008 the building containing the science laboratories and classrooms was slated for demolition. This building would be replaced with a new building on campus. To provide the greatest level of support to the specialized science facilities alternatives to modular units was reviewed. An opportunity became available in 2008 for the College to acquire a building close to campus to remodel to support the science facility needs. The building housed a private scientific company; which included many infrastructure systems required for laboratories. The District acquired the building in a land swap for property exchanged between the City of Alameda, Catellus Property Developer and the Peralta Community College District. The College exchange property to provide an access road to a new commercial development in Alameda for the Science Annex building (860 Atlantic Ave.).

Specific science discipline was migrated to the Science Annex over a number of years. The timetable was Chemistry in July 2011, Physics June 2013, and Biology June 2013. This moved provided the science disciplines state-of-the-art facilities as a temporary location until a new facility can be built on campus. It is the College's intent to have the science disciplines return to the main campus. The new facility is contingent on new facilities bond funding.

D. Evidence that the institution has analyzed and provided for adequate human, physical, technology and financial resources and processes necessary to initiate, maintain, and monitor the change and to assure that the activities undertaken are accomplished with acceptable quality.

Catalog Information and Program Requirements

The Biology program offers the Associate in Science Degree for Biology.

The AS degree in Biology will be awarded upon satisfactory completion of the major course requirements listed below and the General Education requirements for the Associate in Science Degree. [Appendix A: College Catalog, pg.93]

Degree Major Requirements:

- BIOL 1A General Biology 5
- BIOL 1B General Biology 5
- CHEM 1A General Chemistry 5
- CHEM 1B General Chemistry 5
- PHYS 4A General Physics w/ Calculus 5
- PHYS 4B General Physics w/Calculus 5
- Total Required Units 30.0

In addition to the one program of study in Biology, the Biology, Chemistry, and Physics departments offer courses applicable to local general education requirements, California State University general education breadth requirements, and University of California IGETC. Course information is published in the College Catalog and Course Outline of Records is assessable to the public via the CurricUNET system.

- Biology Department [Appendix A: College Catalog pg 93-95; Appendix B: Biology Course Outlines of Record]
- Chemistry Department [Appendix C: College Catalog pg 102-103; Appendix D: Chemistry Course Outlines of Record]
- Physics Department [Appendix E: College Catalog pg 178-179; Appendix F: Physics Course Outlines of Record]

The Biology, Chemistry, and Physics programs eligibility and admission requirements adhere to general college guidelines and policies as defined in the college catalog.

Faculty

All of the science departments have full-time faculty members. The specific breakdown is 2 full-time biology, 1 full-time chemistry, and 1 full-time physics faculty. Below is the breakdown for Fall 2014:

Department	Sections	FT FTEF	FT-Extra FTEF	PT FTEF	Total FTEF
BIOL	12	1.34	0.79	2.63	4.75
CHEM	6	1.00	0.16	1.91	3.07
PHYS	3	0.69	0.0	1.80	1.12

Facilities

The Science Annex, located one-half-mile from the main campus, is a retrofitted biotechnology research complex located at 860 Atlantic Avenue. [Appendix G: Science Annex Floorplan]

The Science Annex was first occupied by the Chemistry and Physics Departments in 2011 and by the Biology Department in 2013, in preparation for the demolition and replacement of Building C and D. The Science Annex currently houses most of the science classes offered by College of Alameda.

The Science Annex includes a Human Anatomy classroom/laboratory with a temperature-modulated cadaver room containing downdraft ventilated cadaver dissection tables, a storage room and an adjacent faculty office. Two other combined lecture/laboratory classrooms serve Human Physiology and General Biology classes. The Biology Stockroom with adjacent Laboratory Technician Office is central to the different classrooms. Plant growth chambers, environmental control chambers, incubators, etc. are located in other nearby rooms.

Chemistry classes are held in the Chemistry Laboratory and one of the lecture rooms, supported by the Chemistry Stockroom and Laboratory technician office. Physics classes are held in a lecture/laboratory classroom with a faculty office and stockroom adjacent to the classroom. Classrooms in the Science Annex have state-of-the-art audiovisual components.

In addition, the Science Annex includes an office suite for adjunct instructors, a student lounge with vending machines, and a mailroom that houses the Scantron reader, and will be the site of a large-volume photocopy machine. A new tutoring program, begun as a satellite of the existing tutoring program on campus, began in 2013. Presently, students tutor their peers in Physics, Chemistry and Biology in the Science Annex Tutoring Center.

There is a shuttle service that runs between the main campus, science annex, and nearby BART transit station. [Appendix H: Shuttle Schedule]

E. Evidence that the institution has received all necessary internal or external approvals

The College of Alameda has received all needed approvals to utilize the facility for instructional use. CALTRAN and the City of Alameda determined the need for an access road to the new Alameda Bay Point Landing development. A land swap agreement was reached between the City of Alameda, Catellus Property Developer, and College of Alameda. The property was valued at \$7.5 million. Catellus purchased the 860 Atlantic property for the land swap; in exchange the College gave Catellus and the City of Alameda road access (Stargell Avenue) through an easement of the College of Alameda property. The Peralta Community College Board of Trustees approved this change in November 11, 2008. [Appendix I: Exchange of Property Agreement] [Appendix J: Board of Trustees Minutes-11/18/08]

The costs of the associated refurbishments were funded using District bond funds, Measure A. The cost for improvements was \$4.1 million. This was approved at the April 7, 2009 Board of Trustees meeting. Work has been completed and Biology course began in Fall 2013, Physics courses in Fall 2013, and Chemistry courses in Fall 2011. [Appendix K: Project Update 02/26/13]

F: Evidence that Each Eligibility Requirement Will Be Fulfilled

1. Authority

College of Alameda has the authority to operate as a degree-granting institution based on its continuous accreditation by the Accrediting Commission for Community and Junior Colleges, an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U. S. Department of Education. This authority is published on page 17 of the College Catalog and is on the College website [REF: [College of Alameda Accreditation](#)].

2. Mission

The current Mission-Vision-Values statement [REF: [College of Alameda Mission Statement](#)] was revised and board-approved in 2009 and most recently reaffirmed by the College in October 2014 [REF: [President's Flex Day Presentation: Fall 2014](#); [Minutes of College Council, October 2014](#)]. Furthermore, the Mission Statement was reaffirmed/approved by the Board of Trustees on April 14, 2015. It is regularly revised to reflect the commitment of the College to meet the learning needs of the students and the community. The Mission-Vision-Values statement is found on pages 12 through 14 of the College Catalog and is posted on the College website. The College Mission-Vision-Values statement is congruent with the Mission of the District [REF: [Board Policy 1.01, District Mission](#)].

3. Governing Board

The Peralta County Community College District is governed by a Board of Trustees that consists of seven members elected by District area and two non-voting student trustees

elected by the students of the four Colleges in the district. Trustees represent specific geographical areas of the District and are elected for four-year staggered terms. The student trustees serve a one-year term. The function of the Board is to determine policies, establish rules, regulations and procedures, and oversee the use of financial and other resources to provide a sound educational program consistent with the mission and goals of the District. The President of the Board of Trustees is one of the community-elected trustees selected by the trustees on an annual basis.

The Board of Trustees invites public input by publishing agendas for its meetings several days in advance of the meeting; agendas may be reviewed online or requested by phoning 510-466-7203. Every regular meeting agenda includes an item for Statements from the Public on Non-Agenda items.

The Peralta Community College Board of Trustees is a seven-member elected-board that meets on the second and fourth Tuesdays of each month (with the exception of February, April and August) at 7:00 p.m. in the District Office Boardroom located at 333 East 8th Street, in Oakland, or as posted. The meetings are open to the public and are also televised on Peralta Colleges Television (PCTV), Cable Channel 27 in Alameda and Berkeley, and Cable Channel 28 in Emeryville, Oakland and Piedmont, with a meeting repeat airing the following Wednesday at 11:00 p.m.

The seven members are elected by region. The student Trustee is a non-voting member. Board goals, policies, meeting agendas and minutes, and other resources may be accessed at <http://web.peralta.edu/trustees/>

Trustee	Role	Area	Email
Bill Withrow	Trustee	Area 1	bwithrow@peralta.edu
Meredith Brown	Board President	Area 2	mbrown@peralta.edu
Linda Handy	Trustee	Area 3	lhandy@peralta.edu
Nicky Gonzalez Yuen	Trustee	Area 4	nyuen@peralta.edu
Dr. William “Bill” Riley	Board Vice President	Area 5	wriley@peralta.edu
Cy Gulassa	Trustee	Area 6	cygulassa@peralta.edu
Julina Bonilla	Trustee	Area 7	jbonilla@peralta.edu
Carl Oliver	Student Trustee		coliver@peralta.edu
Jeremy Rolley	Student Trustee		jrolley@peralta.edu

Board Policies & Administrative Procedures

The Community College League of California (CCLC) provides definitions that help to differentiate policies from procedures, further clarifying distinctions between the role of the board and the responsibilities of college staff:

Policy is the voice of the Board of Trustees, and defines the general goals and acceptable practices for the operations of the college. It implements federal and state laws and regulations. The Board, through policy, delegates authority to and through the chief executive to administer the college.

Administrative Procedures implement board policy, laws, and regulations. They address how the general goals of the district are achieved and define the operations of the district. They include details of policy implementation, responsibility and accountability, and standards of practice.

PCCD Policies and Procedures can be accessed at

<http://web.peralta.edu/trustees/bps-aps/>

Members of the Board of Trustees have no employment, family, ownership or personal financial interests related to either the Colleges or the District. The Board has and enforces a conflict of interest policy [REF: [2710 Conflict of Interest Disclosure](#); [2712 Conflict of Interest Code](#)].

4. Chief Executive Officer

The College of Alameda President serves as chief executive officer for the College and is responsible for the development, implementation, and evaluation of all College programs and services and for the administration and operation of the College. The interim President was re-appointed by the board in 2014 after an unsuccessful nationwide search for a new President. The search process was activated with an anticipated appointment in Spring 2015. The President does not sit on the Board of Trustees for the District. [REF:[2431 Chancellor Selection](#); [2432 Chancellor Succession](#); [2435 Evaluation of the Chancellor](#); [7120 Recruitment and Hiring](#)]

5. Administrative Capacity

The College has a sufficient number of administrators to effectively manage the College's programs and services [REF:[3100 Organizational Structure](#)]. All administrators are selected using appropriate statewide minimum qualifications and District guidelines and have the education and experience to perform their assigned duties [REF:[7250 Academic Administrators](#)].

The Biology, Chemistry, and Physics areas are under two department chairs for Biology and Chemistry/Physics/Geography; which are supervised by the Dean of Workforce Development & Applied Sciences. The Division is one of the units under the Vice President of Instructions. [Appendix L: Instructional Organization Chart]

6. Operational Status

Since 1970 College of Alameda has held classes on a 62-acre campus, located at the intersection of Webster Street and Ralph Appezato Memorial Parkway in Alameda. We have a science lab and classroom building at 860 Atlantic, one block to the east of our main campus. The College has a satellite building housing the Aviation Maintenance Program located on a 2.5-acre site on Harbor Bay Parkway, adjacent to the Oakland International Airport's North Field.

In the 2013/14 academic year, the College had a unique headcount of 13,433 (3904 FTES) enrolled in 1,154 sections. Approximately 43 percent of these students listed transfer as their educational goal, while ten percent listed a degree or certificate without transfer as their goal.

Total unduplicated headcount enrollment

Date run: 1/23/2015

	Term	Headcount
College of Alameda	2012 Fall	6,303
College of Alameda	2013 Fall	6,427
College of Alameda	2014 Fall	6,507

Census filter = enrolled on or after first census date any term

Total unduplicated headcount enrollment in degree applicable credit courses

Date run: 1/23/2015

	Term	Headcount
College of Alameda	2012 Fall	5,905
College of Alameda	2013 Fall	6,039
College of Alameda	2014 Fall	6,213

Census filter = enrolled on or after first census date any term

Credit Status(CB04) is

equal to D

7. Degrees

College of Alameda offers over 33 Associate of Arts and Associate of Science degrees, 8 Associate Degrees for Transfer, and 25 Certificate Programs. The degrees and majors offered by College of Alameda are listed in the 2014/15 catalog and online

Between 2008 and 2015, five Associate of Science Degrees in Biology were granted by the College of Alameda. None of these areas offer certificates.

Sum of Students	Column Labels							
Row Labels	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
ADAM	2	1	6	1	3	4	3	
AMT	2	2	6	1	3	2	4	2
ANTHR		1	1	1		1	4	
ART		1			2		2	1
ATECH	3	4	9	2	11	6	11	
AUTOB		3	5		4		2	
BIOL						1	4	
BUS	33	41	47	45	55	49	56	7
CIS	2		4	3	4	6	5	
COMM						1	3	
DENTL	3	6	9	5	4	9	7	1
DMECH	1	1	1					
ENGL	1		2		2	2		
GEOG	1					1		
HDS	2	1	1					
HIST	1					1	1	
HUMAN					1		1	
LIB/A	82	80	112	87	114	105	133	7
MATH	1		2	1	3	7	5	3
NATSC					9	23	21	1
NOT FOUND	4	1						
PHIL					1			
POSCI	1	4	3	4		7	2	
PSYCH	13	14	16	13	13	21	22	
SOC	2	3	5	4	7	4	9	
SOCS	43	43	55	49	19	5	2	
SPAN	2		1		1	1		
Grand Total	199	206	285	216	256	256	297	22

8. Educational Programs

The degree programs offered at College of Alameda are aligned with its mission and meet the California Education Code of Regulations, Title 5 curriculum requirements. When combined with the general education component, the degree programs represent two years of full-time academic work. All course outlines of record and degrees have been carefully reviewed, and include student learning outcomes that students can achieve through class content, assignments, and activities. All curricula, including courses offered through distance learning, undergo approval by the Board of Trustees. Training for faculty is designed to ensure that pedagogical techniques are appropriate to distance education and that the quality

of education mirrors that of face-to-face sections of the same or equivalent courses. Student learning outcomes are utilized in all courses and programs in order to assess effectiveness of the instruction and to improve the students' learning experience. Program and course descriptions are found in the catalog (pages 50-192), available both in print and on the web. [REF: [College Catalog, 2014-2015](#)]

9. Academic Credit

College of Alameda awards academic credit using the Carnegie standard unit, in accordance with the California Community Colleges Chancellor's Office requirements under California Code of Regulations and Title 5. Sections of courses offered through distance education courses earn the same credits as other sections of the same courses. A definition of unit value is included in the College Catalog (page 197). [REF: [College Catalog, 2014-2015](#)]

10. Student Learning and Achievement

Each course and program offered at College of Alameda has defined and measurable student learning outcomes. These student learning outcomes are assessed by a variety of methods. Coordinated by department and discipline faculty, every course across all modes of delivery or locations follows the course outline of record and the defined student learning outcomes. The College has also defined student learning outcomes for general education and for the institution. The Institutional Effectiveness Committee webpage lists institutional student learning outcomes, rubrics, and assessment information. [REF: [Institutional Effectiveness Webpage](#)]

All courses and programs offered at the College of Alameda have approved student learning outcomes (SLO) and program level outcomes (PLO). SLO/PLO assessments are conducted routinely as part of the college planning cycle. SLO/PLO assessments are documented using the TaskStream system.

- Biology Department [Appendix M: Biology SLO Report]
- Chemistry Department [Appendix N: Chemistry SLO Report]
- Physics Department [Appendix O: Physics SLO Report]

11. General Education

College of Alameda requires a minimum of 19 units in general education towards degree attainment, with a minimum of three units in Natural Sciences (Category 1), Social and Behavioral Sciences (Category 2), Humanities (Category 3), 10 units in Language and Rationality (Category 4), and minimum of three units in Ethnic Studies (Category 5). General education requirements introduce students to areas of study that develop breadth of outlook and contribute to balanced development. The purpose of the program in general education is to assist students in moving toward the following goals:

- Solve problems and make decisions in life and work using critical thinking, quantitative reasoning, community resources, and civil engagement.

- Use technology and written and oral communication to discover, develop, and relate critical ideas in multiple environments.
- Exhibit aesthetic reflection to promote, participate and contribute to human development, expression, creativity, and curiosity.
- Engage in respectful interpersonal communications, acknowledging ideas and values of diverse individuals that represent different ethnic, racial, cultural, and gender expressions.
- Accept personal, civic, social and environmental responsibility in order to become a productive local and global community member

Detailed information about general education requirements is published in the College of Alameda Catalog on pages 50-56 [REF: [College Catalog, 2014-2015](#)], available in both print and electronic format.

12. Academic Freedom

The Peralta County Community College District is dedicated to maintaining a climate of academic freedom encouraging the sharing and cultivation of a wide variety of viewpoints [REF: [4030 Academic Freedom](#)]. Academic freedom expresses our belief in inquiry, informed debate and the search for truth; academic freedom is necessary in order to provide students with a variety of ideas, to encourage them to engage in critical thinking and to help them understand conflicting opinions. Academic freedom encompasses the freedom to study, teach, and express ideas, including unpopular or controversial ones, without censorship or political restraint. Academic freedom, rather than being a license to do or say whatever one wishes, requires professional competence, open inquiry, and rigorous attention to the pursuit of truth.

The District's faculty has the right to express their informed opinions which relate, directly or indirectly, to their professional activities, whether these opinions are expressed in the classroom, elsewhere on campus, or at College-related functions. In a search for truth and in a context of reasoned academic debate, students also have the right to express their opinions and to question those presented by others. Employment by the District does not in any way restrict or limit the First Amendment rights enjoyed by faculty as members of their communities. Faculty members are free to speak and write publicly on any issue, as long as they do not indicate that they are speaking for the institution. Protecting academic freedom is the responsibility of the College community. Therefore, in a climate of openness and mutual respect, free from distortion and doctrinal obligation, the District protects and encourages the exchange of ideas, including unpopular ones, which are presented in a spirit of free and open dialogue and constructive debate. Academic freedom applies to all courses, including distance education.

13. Faculty

College of Alameda has 57 full-time faculty and approximately 150 part-time faculty (2013-14). All faculty meet or exceed the minimum requirements for their disciplines based on regulations for the minimum qualifications for California Community College faculty. Clear statements of faculty roles and responsibilities can be found in the Peralta Federation of Teachers (PFT) contract [REF: [Peralta Federation of Teachers \(PFT\) contract](#)]. Faculty carry

out comprehensive program reviews every 3 years; develop, implement, and assess annual program plans; and develop, implement, and assess student learning outcomes. Faculty evaluation procedures are negotiated as part of the union contract. Faculty teaching online or hybrid courses are subject to the same evaluation schedule and procedures as faculty teaching face-to-face sections.

There is a total of four full-time faculty (two Biology; one Chemistry; one Physics) in these areas and several part time faculty. Below is the breakdown for Fall 2014:

Department	Sections	FT FTEF	FT-Extra FTEF	PT FTEF	Total FTEF
BIOL	12	1.34	0.79	2.63	4.75
CHEM	6	1.00	0.16	1.91	3.07
PHYS	3	0.69	0.0	1.80	1.12

14. Student Services

College of Alameda offers a comprehensive array of student services for all of its students, including those enrolled in distance education courses [REF: [Student Services](#)]. Unless exempted, each new student is required to participate in the matriculation process; which includes assessment for appropriate placement into mathematics, English, or English as a Second Language courses; college orientation; and counseling. All student support services programs promote the objective of serving the whole student and supporting student success.

College of Alameda's student services components foster a student centered environment built on the philosophy of student development. This philosophy synchronizes with the College mission to serve the "educational needs of its diverse community by providing comprehensive and flexible programs and resources that empower students to achieve their goals." [REF: [2014-15 College of Alameda \(COA\) Catalog, page 12](#)]. While most of the services for students at the College are delivered by departments within the Student Services Division, those provided by Instructional areas or in collaboration with Instructional areas and Administrative Services evoke this philosophy of being student centered and student focused. Relations between members of the three major divisions at the College (Student Services, Instruction, and Administrative Services) are collegial and student focused. Members of the Student Services Division are leaders on campus and bring their student empowerment and development perspective to formal and informal meetings and committees.

The Student Services Division itself is organized according to a smooth delivery of services, with one Dean providing leadership for enrollment services, and the other Dean providing leadership for programs for students seeking services from special programs such as EOPS, DSPS, and CalWORKs.

In alphabetical order, COA services that contribute to student access and success are:

Admissions and Records (liaison with PCC District Service Area)

Assessment (liaison with Instruction: Learning Resource Center)
 Articulation
 Athletics (supervised by the Dean)
 CalWORKs
 Counseling
 Extended Opportunities Programs and Services (EOPS)/Cooperative Agencies Resources
 for Education (CARE)
 Financial Aid (Student Financial Assistance)
 Health Services
 International Students (liaison with PCC District Service Area)
 Matriculation (Student Success and Support Program)
 One-Stop Career Center
 Orientation
 Outreach and Recruitment
 Programs and Services for Students with Disabilities (DSPS)
 Student Success Learning Communities (jointly with Instruction)
 Student Activities
 Transfer Program
 Veterans Services

The aforementioned services are described in detail in the COA Catalog, pages 39 to 48. The semester class schedules also include information about the programs and services and the information is also reflected in the Student Handbook. In addition, specific programs disseminate their detailed information, not only throughout the campus via flyers and tabling during College-wide events, but via regular mail, email and the Colleges website.

Students who enroll in on-line courses receive the same services as those who seek services in person. In April 2008 the District went live with its online Student Administration system, referred to as PASSPORT. PASSPORT provides new and returning students access to registration and enrollment in an on-line environment. The PASSPORT system provides new students a link to the CCCApply enrollment application for new and returning students and access to students' academic and financial records for continuing students. Recognizing that not all students are able to easily access the on-line application, Student ambassadors, many of whom are multi-lingual, assist students in the Welcome Center.

The Science Annex does not have dedicated student services spaces. Due to proximity to the main campus and robust online services students taking specific courses at the Science Annex receive equitable access to all student services.

15. Admissions

College of Alameda adheres to admissions policies consistent with its mission as a public California Community College and compliant with California Code of Regulations, Title 5. Information about admissions requirements is available in the catalog, in the schedule of classes, and on District and College websites [REF: [Admissions](#)].

Admissions and Records Department serves as the first point of access to the College for new students and the general public. The campus based Administration and Records office is a

District based function that is managed by local administrators. The A & R office is supervised by the Dean of Enrollment Services.

Admissions and Records staff prides themselves on providing exceptional customer service. While enrollment and other services are available on-line, A&R also assists students directly with adding and dropping classes; changing majors and personal information; enrollment verification; ordering official transcripts; records corrections; and other issues that affect registration and enrollment.

The Admissions and Records office is located within the Welcome Center that supplies twenty-one computers and one printer used by the students to submit on-line applications to CCC Apply through the PASSPORT system, add/drop classes, make changes in personal information and print unofficial transcripts.

Students have the option of receiving admission services online or in-person at the campus Welcome Center. In-person admission services are not offered at the science annex. Student may use computers at the Science Annex to access any online college services.

16. Information and Learning Resources

College of Alameda provides long-term and short-term access to sufficient print and electronic information and learning resources through its Library and programs to meet the educational needs of its students [REF: [Library](#)]. The Library is staffed to assist students, including both onsite and distance learners, in the use of College resources. Wireless internet is available on campus. Computers are available in the Library, open computer labs and Learning Resource Center without charge. The institution is committed to enhancing its learning resources across all possible locations and delivery methods.

Library and Learning Resources are delivered through the main campus. Students attending classes at the Science Annex have access to robust information resources. Students have access to comprehensive full-text journal databases, e-Books, tutorials, and online reference services. Students have the option of using their own devices to access library information resources or they can use computers at the Science Annex. Below is a snapshot from the library's webpage illustrating the breadth of resources available to students at the Science Annex.

The screenshot shows a webpage titled "College of Alameda Library" with a navigation menu on the left and a main content area. The main content area is titled "Article Databases" and includes a search instruction, a list of databases with scholarly articles, and a list of newspaper articles.

College of Alameda Library

- Library Catalog
- Article Databases
- Library Services and Staff
- Library Handouts
- Other Libraries
- Guide to Websites
- Library Courses
- Information Literacy Tutorials
- Library Online Services
- Ask a COA Librarian!
- For Librarians

Article Databases

Search these databases from off-campus with a username (**your last name**) and password (**student id number**). Your student id number can be found underneath the barcode on your student id. Do NOT use your Passport username and password. Only students registered for the current session will have access to the databases from off-campus. For help using the databases, check out our [database tutorials](#).

Databases with Scholarly Articles (All Subjects):

- Expanded Academic ASAP
- Academic Search Premier
- Psychology and Behavioral Sciences Collection
- America: History and Life with Full Text

Newspaper Articles:

- LexisNexis Academic
- Regional Business News
- Newspaper Source Plus

Tutorial Services are housed at the main campus. Student needing tutorial assistance can receive assistance from dedicated tutors at the main campus. To further integrate the Science Annex into the fabric of the College a space in the Science Annex has been dedicated to tutorial and library space. Tutors supporting anatomy courses have been scheduled at the Science Annex. A focused auxiliary print collection of library resources is available to students.

17. Financial Resources

College of Alameda, through the Peralta Community College District, has a publicly documented funding base that is reviewed and revised on an annual basis. The distance education courses are integrated into the annual budget that is approved by the Board of Trustees.

The Biology and Chemistry/Physics/Geography department receive ongoing funding to support supplies, equipment, and student workers. This is above the College faculty allocation. For Fiscal year 2014-15 the yearly allocations are:

Department	Budget
BIOL	\$70,163
CHEM/PHYS	\$83,869

18. Financial Accountability

The Peralta Community College District undergoes an annual external financial audit for the District office and the three Colleges. The audit is conducted by a contracted certified public accountant and in accordance with the standards contained in the Government Auditing Standards issued by the Comptroller General of the United States. The Board of Trustees reviews these audit reports on a regular basis.

19. Institutional Planning and Evaluation

College of Alameda practices participatory governance within an established and integrated institutional planning process that is specifically linked to institutional Mission-Vision-Values, goals, and strategic priorities [REF: [Planning Handbook](#)]. The College engages in ongoing and systematic cycles of planning, implementation, and evaluation in order to maximize effectiveness in promoting academic excellence and student success.

20. Integrity in Communication with the Public

Regularly updated information about all aspects of College of Alameda, including both onsite and distance education, is available to the public through the College of Alameda website, annually published course catalogs, and class schedules published for each semester. General information is provided in the online and print College Catalog, including the official institution name, address, phone numbers, and website address, the College Mission-

Vision-Values, course, program, and degree offerings, academic calendar and program length, the academic freedom statement, available student financial aid, and available learning resources. The names and credentials of faculty and administrators and the members of the Board of Trustees are listed in the College Catalog pages 245-251. Additionally, the catalog includes requirements for admission (page 21); degrees, certificates, graduation and transfer requirements (pages 50-63); and fees and other financial obligations (pages 22-26). Policies affecting students, including academic honesty (page 223), nondiscrimination (page 208), acceptance of transfer credit (pages 53-63), grievance and complaint procedures (page 218), sexual harassment (page 208), and refunds of fees (page 25), are located in the College Catalog. The semester schedule of classes contains the College address, names of the members of the Board of Trustees, calendar information, general information, policy information, and the semester's class listings.

Information is provided to the public in official publications concerning courses offered at the Science Annex and location. Location maps are provided to students and are listed in the schedule of classes. [REF: [College Catalog, 2014-2015](#) and [Fall 2014 Schedule of Classes](#)]

21. Integrity in Relations with the Accrediting Commission

The Peralta Board of Trustees provides assurance that College of Alameda complies with all of the requirements, standards, and policies of the Accrediting Commission for Community and Junior Colleges (ACCJC); describes itself in the same manner to all of its accrediting agencies; communicates changes, if any, in its status; and discloses information required by the Commission. College of Alameda maintains contact with the Commission through its Accreditation Liaison Officer (ALO).

G. Evidence that Each Accreditation Standard will Still be Fulfilled

The College will continue to hold all courses and all operations in the Biology, Chemistry and Physics programs to the same standards as all other instructional programs.

Standard I: The Mission Statement, which guides College of Alameda, applies equally to all academic courses and programs. The mission statement references “to serve the educational needs of its diverse community by providing comprehensive and flexible programs and resources that empower students to achieve their goals.” Courses in the Biology, Chemistry, and Physics provide students with opportunities to fulfill general education and transfer requirements, gain an Associate’s Degree, increase knowledge of the sciences and support employment and life-long skills of critical thinking, logic, problem solving, and communication.

Standard II: The curriculum committee approves and reviews course proposals and submits them to the Board of Trustees for ultimate approval. In addition to approving new courses and programs, programs are updated, revised, and again formally reviewed at least every five years to ensure relevancy. Student Learning Outcomes are reviewed regularly and are part of annual Program Review. [Appendix P: Fall 2014 Schedule of Classes; Appendix Q: Spring 2015 Schedule of Classes; Appendix R: 2014-15 Biology Annual Program Update; Appendix

S: 2014-15 Chemistry Annual Program Update; Appendix T: 2014-15 Physics Annual program Update]

The Biology program offers two courses as distance education. These courses are BIOL 4 (Human Physiology) and BIOL 31 (Nutrition). The Chemistry and Physics department does not offer distance education courses.

Faculty has identified student learning outcomes for all of the College's courses. 100 percent of courses and programs have established assessment plans. Student learning outcomes are available on the curriculum inventory system, CurricUNET [REF: [CurricUNET](#)]. CurricUNET is the system used District wide for the curriculum approval process and inventory. The system used to track and assess data is TaskStream.

Student learning outcomes (SLOs) are available to students on all course syllabi; the general public and potential students may access program learning outcomes on the website. To ensure that course outcomes are aligned with the mission and vision of the college, each SLO is linked with its associated institutional learning outcome (ILO). SLOs are assessed regularly and the data is entered in TaskStream to determine if SLO objectives are met in each course.

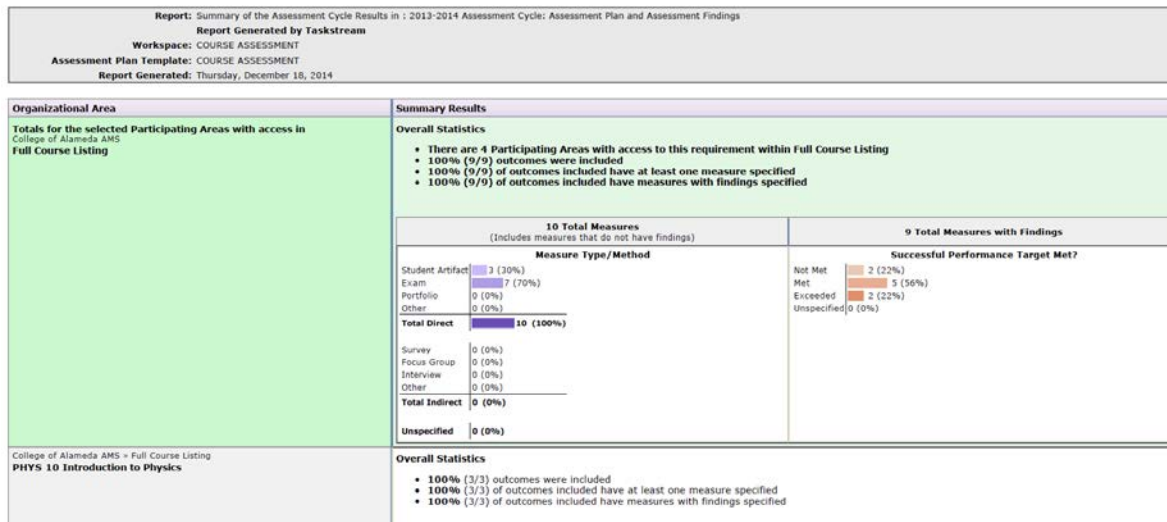
Results of course-level student learning outcome assessment are recorded in TaskStream, which allows for retrieval of information at both detailed and summary levels. These reports become part of the Annual Unit Plans and Comprehensive Program Review, which are the basis for planning and resource allocation. The Institutional Effectiveness Committee reviews these Annual Plans, and feedback is provided to the programs. Comprehensive Program Reviews are done every 3 years District wide.

Faculty use course-level student learning outcome assessment results to improve curriculum and to inform their methods of instruction. To illustrate the ongoing systemic assessment cycle used by Biology, Chemistry, and Physics to assess student learning, below are snapshots of the programs SLO reports for the last cycle completed in 2013-2014. It shows that all courses offered by the disciplines completed assessment of their course student learning outcomes. Full reports are included as an appendix.

RELOCATION OF BIOLOGY PROGRAM TO SCIENCE ANNEX (860 ATLANTIC)

Report: Summary of the Assessment Cycle Results in : 2013-2014 Assessment Cycle: Assessment Plan and Assessment Findings Report Generated by Taskstream Workspace: COURSE ASSESSMENT Assessment Plan Template: COURSE ASSESSMENT Report Generated: Thursday, December 18, 2014																																																					
Organizational Area Totals for the selected Participating Areas with access in College of Alameda AMS Full Course Listing	Summary Results Overall Statistics <ul style="list-style-type: none"> • There are 7 Participating Areas with access to this requirement within Full Course Listing • 70% (22/28) outcomes were included • 100% (22/22) of outcomes included have at least one measure specified • 36% (8/22) of outcomes included have measures with findings specified <table border="1"> <thead> <tr> <th colspan="2">26 Total Measures (Includes measures that do not have findings)</th> <th colspan="2">11 Total Measures with Findings</th> </tr> <tr> <th colspan="2">Measure Type/Method</th> <th colspan="2">Successful Performance Target Met?</th> </tr> </thead> <tbody> <tr> <td>Student Artifact</td> <td>2 (8%)</td> <td>Not Met</td> <td>2 (18%)</td> </tr> <tr> <td>Exam</td> <td>19 (69%)</td> <td>Met</td> <td>3 (27%)</td> </tr> <tr> <td>Portfolio</td> <td>1 (4%)</td> <td>Exceeded</td> <td>6 (55%)</td> </tr> <tr> <td>Other</td> <td>5 (19%)</td> <td>Unspecified</td> <td>0 (0%)</td> </tr> <tr> <td>Total Direct</td> <td>26 (100%)</td> <td></td> <td></td> </tr> <tr> <td>Survey</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Focus Group</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Interview</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Total Indirect</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Unspecified</td> <td>0 (0%)</td> <td></td> <td></td> </tr> </tbody> </table>	26 Total Measures (Includes measures that do not have findings)		11 Total Measures with Findings		Measure Type/Method		Successful Performance Target Met?		Student Artifact	2 (8%)	Not Met	2 (18%)	Exam	19 (69%)	Met	3 (27%)	Portfolio	1 (4%)	Exceeded	6 (55%)	Other	5 (19%)	Unspecified	0 (0%)	Total Direct	26 (100%)			Survey	0 (0%)			Focus Group	0 (0%)			Interview	0 (0%)			Other	0 (0%)			Total Indirect	0 (0%)			Unspecified	0 (0%)		
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Information collected through student learning assessments are included in departmental annual unit plans (APU) and comprehensive program reviews. Curricular and departmental requests are informed by this data and the data supports written justifications. 100% of student learning outcomes have been assessed in Biology, Chemistry and Physics.

Furthermore, the collective bargaining agreements between the District and faculty unions call for regular evaluation of instruction [Appendix U: Faculty Evaluations]. The contracts specify procedures for both peer evaluation and student evaluation of instructors.

Students attending courses offered at the Science Annex have access to College student service programs. The Science Annex does not have dedicated student services spaces. Due to proximity to the main campus and robust online services students taking specific courses at the Science Annex receive equitable access to all student services. Greater details are articulated under Eligibility Requirements 14 and 15.

Library and Learning Resources are delivered through the main campus. Students attending classes at the Science Annex have access to robust information resources. Students have access to comprehensive full-text journal databases, e-Books, tutorials, and online reference services. Greater details are articulated under Eligibility Requirement 16.

Standard III: The move of the Biology, Chemistry, and Physics programs to Science Annex allows for expansion of the programs and course offerings. The program will maintain its four full-time faculty members, two full-time classified staff, student assistants, and additional qualified associate instructors. The physical resources dedicated to the program have improved dramatically, as noted above (lab space, dedicated classroom, equipment).

Formal evaluations standards, procedures, and processes are negotiated between the District Office of Human Resources and the Peralta Federation of Teachers. There are established procedures for including an assessment of student learning outcomes as a component of

faculty evaluations. The faculty self- evaluation form requires faculty to reflect on how Student Learning Outcomes (SLOs) or Service Area Outcomes affect teaching and how faculty members can become more effective at producing the desired learning outcomes, or affect services to students.

The College has focused on student learning outcomes in instruction, student services, and administrative services with a focus on ensuring student success and student completion of basic skills, transfer, or career technical education programs and successfully attaining learning outcomes for courses, services , and programs, as well as institutional learning outcomes.

Faculty effectiveness is measured using a variety of criteria. Faculty are required to discuss student learning outcomes and the assessment of those outcomes as a part of program review, as a component of curriculum development, and part of the faculty evaluation process in the self-evaluation. [Appendix U: Faculty Evaluations: [Articulation Officer Self Evaluation](#); [Classroom Faculty Self Evaluation](#); [Counseling Faculty Self Evaluation](#); [Learning Assistance Faculty Self Evaluation](#); [Librarian Self Evaluation](#); [Nurse Self Evaluation](#)]

The Science Annex was first occupied by the Chemistry and Physics Departments in 2011 and by the Biology Department in 2013, in preparation for the demolition and replacement of Building C and D. The Science Annex currently houses most of the science classes offered by College of Alameda, and also accommodates Merritt College's Genomics Program. Shared occupancy by the two Colleges has worked very well.

The College of Alameda portion of the Science Annex presently includes a Human Anatomy classroom/laboratory with a temperature-modulated cadaver room containing downdraft ventilated cadaver dissection tables, a storage room and an adjacent faculty office. Two other combined lecture/laboratory classrooms serve Human Physiology and General Biology classes. The Biology Stockroom with adjacent Laboratory Technician Office is central to the different classrooms. Plant growth chambers, environmental control chambers, incubators, etc. are located in other nearby rooms.

Chemistry classes are held in the Chemistry Laboratory and one of the lecture rooms, supported by the Chemistry Stockroom and Laboratory technician office. Physics classes are held in a lecture/laboratory classroom with a faculty office and stockroom adjacent to the classroom. Classrooms in the Science Annex have state-of-the-art audiovisual components.

In addition, the Science Annex includes an office suite for adjunct instructors, a student lounge with vending machines, and a mailroom that houses the Scantron reader, and will be the site of a large-volume photocopy machine. A new tutoring program, begun as a satellite of the existing tutoring program on campus, began in 2013. Presently, students tutor their peers in Physics, Chemistry and Biology in the Science Annex Tutoring Center. Development of a satellite library reference desk, with computer access to periodical indices and guidance from an on-site librarian, is under discussion with the campus library staff.

General campus technology requests are handled at the College by a Help Desk Escalation Process. Typically, when a user encounters an issue the user submits a request to the College IT coordinator. College IT staff troubleshoot the issue and determine if the problem needs to

be addressed at the District level. If the issue is a District issue, then the College IT coordinator will contact the helpdesk at the District for resolution.

Data Security (PeopleSoft) is provided by District IT providing secure databases and sound security principles. System Security (Network) is also provided by District IT which owns a security compliance package that blocks invalid network connectivity. The network is secure, consisting of firewalls and certificates.

As described earlier, funds for IT supplies and requests are primarily on a “by-request” or emergency basis. To offset the impact of extremely limited resources at the campus, the team keeps an inventory of computing hardware that needs to be replaced or machines that can be rolled down into another area of the campus. New and end-of-life equipment is stored in IT on the second floor of the L building. End-of-life equipment is disposed of by submitting a request to warehouse where equipment is disposed of according to PCCD administrative policy 6550 [REF: [AP 6550 Disposal of Property](#)]. New equipment, not yet deployed, is housed with IT or the central college storage until ready for distribution.

The Science Annex has robust technology, including SMART classrooms, student laptop computers, wireless Internet access, computer projectors, and specialized scientific equipment and technology, such as fume hood, microscopes, and electronic measurement scales.

Financial planning is integrated with and supports all institutional planning. The allocation of financial resources is structurally integrated into the planning processes at the College and the District. College of Alameda’s integrated planning process [REF: [Integrated Planning and Budget Process](#)] is evaluated, updated as necessary, and approved by college constituencies. The institutional planning document was approved in fall 2014 [REF: College Council Minutes- October 2014]. The plan is based on COA’s mission, vision, and goals, ACCJC standards, District planning processes, and the 2009 Integrated Educational and Facilities Master Plan. [REF: [Educational Master Plan](#)]

The planning and assessment process emphasizes the cyclical and systematic nature of planning, implementation, assessment and revision. It is similar to the cycle of inquiry in that it illustrates the cycle of planning and review, with revision of actions after review of data sets, identification of strengths and weaknesses, and with weaknesses being addressed by instituting action priorities. Once the action priorities are crafted, they are measured with data benchmarks.

Annually instructional areas are required to complete unit plans; every three years, areas are required to complete program reviews. These plans address the achievement of College mission, goals, institutional outcomes and action priorities. They are written to integrate both college and district-wide planning by addressing resource needs. The reviews or unit plans are data driven. Quantitative examples of instructional data elements: Degrees and/or certificates awarded by major, transfer rates, and enrollment norms; full-time equivalent students served (FTES); faculty load; expenditure levels in the prior fiscal year; and the resource requests for the following fiscal year. Quantitative examples of data elements for student service areas: Students served by age, gender, and ethnicity; student retention,

success, and persistence rates; FTES by instructional student service areas; budgetary information for the past fiscal year; and resource needs for the following fiscal year.

All College resource requests are reviewed by the College Budget Committee. The committee may recommend prioritization of requests before submitting them to the College Council. College Council is the College-wide participatory governance body that includes representation from the faculty, classified staff, students and administration [REF: [College Council Agendas- 2014](#); [College Resource Request List- 2014](#)]. The College Council assesses the priorities from Annual Program Updates and Program Reviews. The College Management Team, the Academic Senate and the College Council are the primary shared governance bodies that make recommendations to the President.

Through the planning process adequate funds have been allocated to the Biology, Chemistry, and Physics areas. Specific amounts are reference under Eligibility Requirement 17. Below is an example from Chemistry's 2014-15 Annual Program Update (APU) describing department needs. The appendix includes full-copies of Biology, Chemistry, and Physics APUs.

XI. Needs

Please describe and prioritize any **faculty, classified, and student assistant** needs.

- 1.) Since there are three chemistry lab sections that meet in the evening from 6-9 PM (T/W and a Thursday section is added for Spring 2015), we request a half-time evening chemistry/physics lab technician to be shared with Physics. The primary responsibility would be to prepare and trouble-shoot laboratory experiments for physics and evening chemistry classes. This would include: Reading, comprehending, and implementing scientific procedures from written sources, including experiment manuals, laboratory manuals, and reference books; and evaluating equipment to assess its operational state and making simple repairs. Additional responsibilities would include organizing and maintaining the physics stockroom and preparing and maintaining kits for classroom demonstrations in chemistry. We would like to recruit individuals with demonstrated initiative and ability to work independently in chemistry and physics laboratory settings; familiarity with mechanical and electrical equipment; familiarity with computer-assisted laboratory instruction; a solid grasp of lower-division chemistry and safety procedures; and strong organizational skills.
- 2.) Continued demand for Chemistry is seen from students every semester. Another full time faculty member is requested for Chemistry to add to the department capabilities, and provide additional full time presence to be daily accessible to students and staff, as well as providing continuity and the ability to invest additional time with the program and help plan its future.
- 3.) Student assistants are currently serving as TA's for both Chem1A and Chem30A classes. They help students in lab with the experimental procedure and concepts. The students are also more willing to ask questions of the TA's and both benefit. We request funding for student TA's to continue as we find qualified students.
- 4.) Funding for adjunct instructors to work on improved lab manuals and protocols.

Please describe and prioritize any **equipment, material, and supply** needs.

- 1.) A classroom demo desk with natural gas, plumbed sink, and electricity for the chemistry lecture hall, room 110. Classroom demos for chemistry are chances to reinforce explanations with safe and dramatic chemical reactions. The lecture hall in D building had a demo desk, as do most chemistry classrooms.
- 2.) Mail service to 860 Atlantic for Chemistry, Physics, and Biology faculty and staff is requested.

Standard IV: All existing processes and policies of the college will continue to apply to Biology, Chemistry and Physics. The move of the program from the main campus to the science annex does not change compliance with this accreditation standard.

Master List of Evidence (in alphabetical order)

[Admissions](#)

[AP 2710 Conflict of Interest Disclosure;](#)

[AP 2712 Conflict of Interest Code](#)

[BP 1.01, District Mission](#)

[BP 2431 Chancellor Selection;](#)

[BP 2432 Chancellor Succession;](#)

[BP 2435 Evaluation of the Chancellor;](#)

[BP 3100 Organizational Structure](#)

[BP 4030 Academic Freedom](#)

[BP 7120 Recruitment and Hiring](#)

[BP 7250 Academic Administrators](#)

[College of Alameda Accreditation](#)

[College of Alameda Mission Statement.](#)

[College Catalog, 2014-2015](#)

[College Council, *Minutes*, October 2014](#)

[Fall 2014 Schedule of Classes](#)

[Flex Day presentation, *Accreditation*, August 2014](#)

[Institutional Effectiveness Webpage](#)

[Library](#)

[Peralta Federation of Teachers \(PFT\) contract](#)

[Planning Handbook](#)

[Student Services](#)

Appendix

- A. College Catalog pg 93-95
- B. Biology Course Outlines of Record
- C. College Catalog pg 102-103
- D. Chemistry Course Outlines of Record
- E. College Catalog pg 178-179
- F. Physics Course Outlines of Record
- G. Science Annex Floorplan
- H. Shuttle Schedule
- G. Biology SLO Report
- H. Chemistry SLO Report
- I. Exchange of Property Agreement
- J. Board of Trustees Minutes- 11/11/08
- K. Project Update 02/26/13
- L: Instructional Organization Chart
- M. Biology SLO Report
- N. Chemistry SLO Report
- O. Physics SLO Report
- P. Fall 2014 Schedule of Classes
- Q. Spring 2015 Schedule of Classes
- R. 2014-15 Biology Annual Program Update
- S. 2014-15 Chemistry Annual Program Update
- T. 2014-15 Physics Annual program Update
- U. Faculty Evaluation Forms

Appendix A: College Catalog pg 93-95

BIOLOGY (BIOL)

What is Biology? Biologists study life from a scientific perspective. We are fascinated by the myriad ways that living organisms survive and cooperate with each other, and study how these ways came into being. **The Biology Department at College of Alameda** offers courses that consider the smallest biological molecules, whole organisms, and the entire ecosystem of the Earth. All the courses in biology help you to have a clear understanding of the scientific processes -- both philosophical and technical -- used to gather this knowledge.

Why Study Biology? Biologists take very diverse career paths. Some enter health fields like medicine, dentistry, nursing, physical therapy, and pharmacy. Others enter into research in environmental and conservation areas. Training in biology can also lead to careers in biotechnology and other fields of technology. Because we ourselves are life forms, interacting with and dependent on other life forms, it is important for any educated person to have an understanding of the basics of biology. This is why we invite and encourage all students to take at least one of our courses.

What is special about Biology at College of Alameda? When you take our classes you will be taking courses that transfer to UC and CSU campuses and to private colleges and universities. Most of our classes have laboratory sections where you get hands-on experience with life forms, and personalized interaction with your instructors. Our classes are small in size with a low ratio of students to instructor. We believe this makes for the best training of a biologist. You will become actively involved in your own education. Finally, we offer classes all day, every day, including the weekends, and many nights during the week.

The **AS degree in Biology** will be awarded upon satisfactory completion of the major course requirements listed below and the General Education requirements for the Associate in Science Degree listed in the Degrees and Programs section of this Catalog.

Degree Major Requirements:

Dept/No.	Title	Units
BIOL 1A	General Biology	5
BIOL 1B	General Biology	5
CHEM 1A	General Chemistry	5
CHEM 1B	General Chemistry	5
PHYS 4A	General Physics w/ Calculus	5
PHYS 4B	General Physics w/Calculus	5
Total Required Units:		30

BIOL 1A

General Biology

5 units, 3 hours lecture, 6 hours laboratory (GR or P/NP)

Prerequisite: Chem 1A

Acceptable for credit: CSU, UC

Introduction to general biology: Cell structure and function, metabolism, molecular and organismal genetics, and animal physiology. 0401.00

AA/AS area 1; CSU area B2, B3; IGETC area 5B/5C

BIOL 1B

General Biology

5 units, 3 hours lecture, 6 hours laboratory (GR or P/NP)

Prerequisite: Biol 1A

Acceptable for credit: CSU, UC

Continuation of BIOL 1A: Origin of life, evolution, classification, plant structure and function, and ecology. 0401.00

AA/AS area 1; CSU area B2, B3; IGETC area 5B/5C

BIOL 2

Human Anatomy

5 units, 4 hours lecture; 3 hours laboratory (GR or P/NP)

Prerequisite: Biol 10 or 24

Acceptable for credit: CSU, UC

Detailed study of human body structure: Molecules, cells, tissues, organs and organ systems, basic physiology and cell division, selected human diseases. Laboratory work includes extensive use of microscopes, figures/charts, three-dimensional models, dissected human cadavers, and dissection of other mammalian organisms/organs. 0410.00

AA/AS area 1; CSU Area B2, B3; IGETC area 5B/5C

BIOL 4

Human Physiology

5 units, 4 hours lecture; 3 hours laboratory (GR or P/NP)

Prerequisite: Chem 1A or 30A

Recommended preparation: Biol 2

Acceptable for credit: CSU, UC

Detailed study of human body function: Molecules, cells, tissues, organs and organ systems, basic anatomy essential to understanding function, physical and chemical factors and processes, and selected human diseases. Laboratory work includes computer simulations and interactive programs, physiological experiments and demonstrations, and use of microscopes. 0410.00

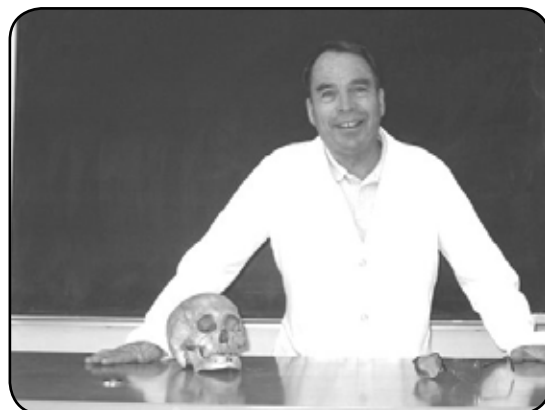
AA/AS area 1; CSU Area B2, B3; IGETC area 5B/5C



Instructor Ann Kircher



*Laboratory Technician
Helena Lengel*



Instructor John Steiner



Instructor Reza Majlesi

BIOL 10

Introduction to Biology

4 units, 3 hours lecture, 3 hours laboratory (GR or P/NP)
Not open for credit to students who have completed or are currently enrolled in Biol 1A or 1B.

Students with previous credit in Biol 11 receive only 1 unit of credit for Biol 10.

Acceptable for credit: CSU, UC

Fundamentals of biology for the non-major: Scientific inquiry, biological chemistry, cell structure and function, DNA and genetics, evolution and ecology, and an overview of living organisms. Includes laboratory exercises designed to complement lectures. 0401.00

AA/AS area 1; CSU area B2, B3; IGETC area 5B/5C

BIOL 11

Principles of Biology

3 units, 3 hours lecture (GR)

Not open for credit to students who have completed or are currently enrolled in Biol 1A or 1B or 10.

Acceptable for credit: CSU, UC

Fundamentals of biology for the non-major: Scientific inquiry, biological chemistry, cell structure and function, DNA and genetics, evolution and ecology, and an overview of living organisms. 0401.00

AA/AS area 1; CSU area B2; IGETC area 5B

BIOL 31

Nutrition

4 units, 4 hours lecture (GR or P/NP)

Not open for credit to students who have completed or are currently enrolled in Biol 28 at Laney College or Nutr 10 at Merritt College.

Acceptable for credit: CSU, UC

Principles of human nutrition: Nutrients, their function and food sources; problems of excess and deficiency; dietary goals for health promotion and disease prevention. 0401.00

CSU area E

BIOL 48AA-FZ

Selected Topics in Biological Sciences

.5-5 units, 0-5 hours lecture, 0-15 hours laboratory (GR or P/NP)

Acceptable for credit: CSU

See section on Selected Topics. 0401.00

BIOL 49

Independent Study in Biology

.5-5 units, .5-5 hours lecture (GR or P/NP)

Acceptable for credit: CSU

See section on Independent Study. 0401.00

BIOL 248AA-FZ**Selected Topics in Biological Sciences**

.5-5 units, 0-5 hours lecture, 0-15 hours laboratory (GR or P/NP)

See section on Selected Topics. 0401.00

***For all program degree and certificate
updates, please visit:***

<http://alameda.peralta.edu>

B. Biology Course Outlines of Record



Welcome,
Colleges:
College of Alameda

Log Out

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[Program](#)
[Users](#)

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[Peralta Home Page](#)
[Special Characters](#)



















Course Search Results		
Actions	Department	Course Number Title
	College of Alameda	BIOL 001A General Biology *Active* peralta peralta Curric Comm App Date:
	College of Alameda	BIOL 001B General Biology *Active* peralta peralta Curric Comm App Date:
	College of Alameda	BIOL 001C BIOL 001C *Active* peralta peralta Curric Comm App Date:
	College of Alameda	BIOL 002 Human Anatomy *Active* peralta peralta Curric Comm App Date:
	College of Alameda	BIOL 004 Human Physiology *Active* Reza Majlesi Curric Comm App Date:
	College of Alameda	BIOL 010 Introduction to Biology *Active* Krista Granieri Curric Comm App Date:
	College of Alameda	BIOL 011 Principles of Biology *Active* Krista Granieri Curric Comm App Date:
	College of Alameda	BIOL 016 BIOL 016 *Active* peralta peralta Curric Comm App Date:
	College of Alameda	BIOL 018 BIOL 018 *Active* peralta peralta Curric Comm App Date:
	College of Alameda	BIOL 019 BIOL 019 *Active* peralta peralta Curric Comm App Date:
	College of Alameda	BIOL 028 BIOL 028 *Active* peralta peralta Curric Comm App Date:
	College of Alameda	BIOL 031 Nutrition *Active* Reza Majlesi Curric Comm App Date:
	College of Alameda	BIOL 048AB Winter Birds and Habitats of Alameda National Wildlife Refuge *Active* peralta peralta Curric Comm App Date:
	College of Alameda	BIOL 048AC Spring Birds and Habitats of Alameda National Wildlife Refuge *Active* peralta peralta

Legend

	Course Outline (pdf)
	Course Outline (word)
	Course Impact Report
	Distance Education Addendum
	Course Compare Report
	SLO Report
	Course Attachments
	Fee-Based Class Proposal
	Edit
	Copy

Help

Click on the WR icon to view a course outline. Click on the Copy icon to copy a course to edit. Click More for Guidelines on Course Revision.

  	Curric Comm App Date: College of Alameda BIOL 048AD Bay Area Butterflies *Active* peralta peralta
  	Curric Comm App Date: College of Alameda BIOL 048AE Arrowhead Marsh Wetlands Education *Active* peralta peralta
  	Curric Comm App Date: College of Alameda BIOL 049 BIOL 049 *Active* peralta peralta
  	Curric Comm App Date: College of Alameda BIOL 080 BIOL 080 *Active* peralta peralta
  	Curric Comm App Date: College of Alameda BIOL 248 BIOL 248 *Active* peralta peralta
  	Curric Comm App Date: College of Alameda BIOL 248AA Natural History of Alameda National Wildlife Refuge *Active* peralta peralta Curric Comm App Date:

Governet

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000355287
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 001A

3. COURSE TITLE:

General Biology

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP 0401.00 NO.**

5. UNITS: 5 **HRS/WK LEC:** 3 Total: 52.5 **HRS/WK LAB:** 6 Total: 105 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Fulfills the lower division requirement for majors in the biological and health sciences; fulfills the requirement for the natural sciences in general education for the Associate in Arts degree (area I); fulfills pre-professional and para-medical requirements for some institutions; fulfills requirement as Science major. Acceptable for credit: CSU, UC.

8. COURSE/CATALOG DESCRIPTION

Introduction to cell structure and function, metabolism, molecular and organism genetics, animal physiology.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
Acceptable for credit: CSU, UC.
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Apply reasoning skills to recognize and formulate concepts central to the biology discipline, such concepts to include:

1. chemistry of life;
2. cell structure and functions;
3. classical and molecular genetics;
4. metabolic pathways.
5. Analyze and interpret questions and problems taken from biological literature, including original articles and current reviews by class discussion, reports and examinations;
6. Assess appropriate biological concepts, data, procedures and ideas to suggest alternative hypotheses to fundamental questions and problems based on available information to present in well-articulated written or oral dissertations;

Competency #1: Resources: Identifies, organizes, plans and allocates resources.

1. Time – selects goal-relevant activities, ranks them, allocates time and prepares and follows schedules. Materials and facilities – acquires, stores, allocates and uses materials or space efficiently.

Competency #2: Interpersonal: Works with others

1. Participates as member of a Team – contributes to group efforts. Exercises Leadership – communicates ideas to justify position, persuades, and convinces others, responsibly challenges existing procedures and policies. Negotiates - works toward agreements involving exchange of resources, resolves divergent interests. Works with Diversity – works well with men and women from diverse backgrounds.

Competency #3: Information: Acquires and uses information

1. Acquires and evaluates information Organizes and maintains information Interprets and communicates information

Competency #4: Systems: Understands complex interrelationships

1. Understands Systems – knows how social, organizational, and technological systems work and operates effectively with them.

Competency #5: Technology: Works with a variety of technologies.

1. Applies Technology to Task – understand overall intent and proper procedures for setup and operation of equipment. Maintains and troubleshoots equipment – prevents, identifies, or solves problems with equipment, and other technologies.

Skill #1: Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens and speaks

1. Reading – locates, understands, and interprets written information in prose and in

documents such as manuals, graphs, and schedules. Writing – communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graph, and flow-chart. Arithmetic/Mathematics – performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques. Listening – receives, attends to, interprets and responds to verbal messages and other cues.

Skill #2: Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn and reason.

1. Creative Thinking – generates new ideas. Decision-Making – specific goals and constraints, generate alternative, considers risks, evaluates and chooses best alternative. Problem Solving – recognizes problems and devises and Implements plan of action. Seeing things in the mind's eye – organizes and processes symbols, pictures, graphs, objects, and other information. Reasoning – discovers a rule or principle underlying the relationship between two or more objects and applies it in solving problems.

Skill #3: Personal Qualities:

1. Displays responsibility, self-esteem sociability, self-management, and integrity and honesty. Responsibility – exerts a high level of effort and perseveres towards goal attainment. Sociability – assesses self accurately, sets personal goals, monitors progress, and exhibits self-control. Integrity/Honesty – chooses ethical courses of action.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

18% 1. The Chemistry of Life (atoms, molecules, bonding forces; water, acids, bases, salts; organic compounds, structure and function of biomolecules; energy relationships, oxidation/reduction.)

16% 2. Architecture of Cells (membranes and membrane-bounded units (cells and organelles); structure and function.)

16% 3. Major Metabolic Pathways (glycolysis, respiration, photosynthesis.)

16% 4. Cell Division (Mitosis, meiosis, sexual life cycles; the genome, chromosomes, and the molecular basis of inheritance.)

18% 5. Classical and Molecular Genetics (Mendel, the genetic code, genetics of viruses and bacteria, control of gene expression in prokaryotes and eukaryotes, recombinant DNA and genetic engineering.)

16% 6. Biological diversity (prokaryotes and eukaryotes: the various biological "kingdoms").

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Discussion
3. Field Trips
4. Other: supplemented by laser-disc and other audio-visual techniques, including slides and films. Laboratory exercises for the student and laboratory demonstrations by the instructor.

13. ASSIGNMENTS: 9 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1. Problem sets based on concepts developed in the text and in classroom discussion; problems require application of relevant hypotheses and mathematical calculation. 2. Examinations based on problems presented in the text and in the problem sets; laboratory examinations requiring proficient use of laboratory equipment. 3. Assigned readings in current literature (available in libra 1. Reading; 2. Lab reports; 3. Oral reports.

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)
Lab reports

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Campbell, Neil	<i>Biology</i> (3/e).	Benjamin-Cummings Publishing Co., Redwood City, CA	(1994). Rationale: -
Morgan and Carter	<i>Investigating Biology: A Laboratory Manual</i>	Benjamin-Cummings Publishing Co., Redwood City, CA	(1993). Rationale: -

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed.

Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- CHEM 001A: General Chemistry

Subject course and pre/corequisite is: Sequential

Entry Skills: 1. Atomic theory; 2. Chemical bonding; 3. States of matter; 4. Dispersed systems.

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000370072
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 001B

3. COURSE TITLE:

General Biology

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course [X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP 0401.00 NO.**

5. UNITS: 5 **HRS/WK LEC:** 3 Total: 52.5 **HRS/WK LAB:** 6 Total: 105 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Fulfills the lower division requirement for majors in the biological and health sciences; fulfills the requirement for the natural sciences in general education for the Associate in Arts degree (area I); fulfills pre-professional and para-medical requirements for some institutions; fulfills requirement as Science major. Acceptable for credit: CSU, UC.

8. COURSE/CATALOG DESCRIPTION

Origin of life, evolution, classification, plant structure and function, ecology. (CAN Biology Sequence A)

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Apply reasoning skills to recognize and formulate concepts central to the biology discipline, such concepts to include:
 1. chemistry of life;
 2. cell structure and functions;
 3. classical and molecular genetics;
 4. metabolic pathways.
 5. Analyze and interpret questions and problems taken from biological literature, including original articles and current reviews by class discussion, reports, and examinations;
 6. Assess appropriate biological concepts, data, procedures and ideas to suggest alternative hypotheses to fundamental questions and problems based on available information to present in well-articulated written or oral dissertations;
 7. Demonstrate knowledge in the proficient and safe operation of laboratory equipment.
- Competency #1: Resources: Identifies, organizes, plans and allocates resources.
1. Time – selects goal-relevant activities, ranks them, allocates time and prepares and follows schedules. Materials and facilities – acquires, stores, allocates and uses materials or space efficiently.
- Competency #2: Interpersonal: Works with others
1. Participates as member of a Team – contributes to group efforts. Exercises Leadership – communicates ideas to justify position, persuades, and convinces others, responsibly challenges existing procedures and policies. Negotiates - works toward agreements involving exchange of resources, resolves divergent interests. Works with Diversity – works well with men and women from diverse backgrounds.
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1. Acquires and evaluates information Organizes and maintains information Interprets and communicates information
- Competency #4: Systems: Understands complex interrelationships
1. Understands Systems – knows how social, organizational, and technological systems work and operates effectively with them.
- Competency #5: Technology: Works with a variety of technologies.
1. Applies Technology to Task – understand overall intent and proper procedures for setup and operation of equipment. Maintains and troubleshoots equipment – prevents, identifies, or solves problems with equipment, and other technologies.
- Skill #1: Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens and speaks
1. Reading – locates, understands, and interprets written information in prose and in

documents such as manuals, graphs, and schedules. Writing – communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graph, and flow-chart. Arithmetic/Mathematics – performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques. Listening – receives, attends to, interprets and responds to verbal messages and other cues.

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11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

20% 1. Evolution and Population Genetics (Natural Selection (Darwin & Wallace), the origin of species, mechanism of genetic evolution; the fossil record and the history of life on earth; speculations about the origins of life.);

20% 2. Plants (anatomy, biochemistry, physiology, reproductive cycles, and taxonomy);

20% 3. Animals (anatomy, biochemistry, physiology, reproductive cycles, and taxonomy);

20% 4. Ecology (Biomes, communities, ecosystems; the integration of life and environment);

20% 5. Animal behavior.

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Lab
3. Discussion
4. Field Trips
5. Other: Lectures, supplemented by laser-disc and other audio-visual techniques, including slide and film.

13. ASSIGNMENTS: 9 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1. Problem sets based on concepts developed in the text and in classroom discussion; problems require application of relevant hypotheses and mathematical calculation. 2. Examinations based on problems presented in the text and in the problem sets; laboratory examinations requiring proficient use of laboratory equipment. 3. Assigned readings in current literature (available in library).

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)
Lab reports

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Neil Campbell	<i>Biology (2/e).</i>	Benjamin-Cummings Publishing Co., Redwood City, CA	(1990). Rationale: -
Morgan and Carter	<i>Investigating Biology, A Laboratory Manual</i>	Benjamin-Cumminigs Publishing Co., Redwood City, CA	(1993). Rationale: -

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed.

Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- BIOL 001A: General Biology

Subject course and pre/corequisite is: Sequential

Entry Skills: 1. Chemistry and biological chemistry; 2. Cell structure and function; 3. Photosynthesis; 4. Cell respiration; 5. Organismal genetics; 6. Molecular genetics; 7. Ability to write scientific lab reports; 8. Knowledge of lab procedures gained in Biology 1A.

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000347405
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit []	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 001C

3. COURSE TITLE:

BIOL 001C

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP NO.**

5. UNITS: **HRS/WK LEC:** 0 Total: **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

8. COURSE/CATALOG DESCRIPTION

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- [] Primarily college level
- [] NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- [] ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
- Are nonprint materials adequate? Yes No
- Are electronic/online resources available? Yes No
- Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 07/01/2008
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000459351
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 002

3. COURSE TITLE:

Human Anatomy

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP** 0410.00 **NO.**

5. UNITS: 5 **HRS/WK LEC:** 4 Total: 70 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Transfers to four-year institutions. Fulfills the requirement for the Science and Health Sciences majors and for Natural Science in General Education for the Associate of Science degree. Required as prerequisite for professional schools in health care (including Registered Nurse, Licensed Vocational Nurse, Nurse Practitioner, Physician Assistant, Dental, Dental Hygiene, Medical and Pharmacy, Radiologic Science). Acceptable for credit: CSU, UC.

8. COURSE/CATALOG DESCRIPTION

Detailed study of human body structure: Molecules, cells, tissues, organs and organ systems, basic physiology and cell division, selected human diseases. Laboratory work includes extensive use of microscopes, figures/charts, three-dimensional models, dissected human cadavers, and dissection of other mammalian organisms/organs.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
AA/AS area 1, CSU area B2, B3, IGETC area 5B, Acceptable for credit: CSU, UC
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Describe the molecular, cellular, tissue, organ, organ system and organismal levels of structure for all human organ systems, and apply this information in discussions and on exams.
2. Define and correctly use terminology in regard to structure of the human body, in discussions and on exams.
3. Describe the details of structure of the human body and be able to apply them to the “big picture” in discussions and on exams.
4. Describe the basics of the molecular, cellular, tissue, organ, organ system and organismal levels of function for all human organ systems, and apply this information in discussions and on exams.
5. Define and correctly use terminology in regard to basic function of the human body, in discussions and on exams.
6. Label anatomical diagrams using correct terminology on laboratory practical exams.
7. Correctly focus and adjust lighting on microscope slides, to locate and identify tissues and organs of the human body during laboratory.
8. Dissect mammalian organs and identify parts during laboratory.
9. Recognize and name structures on the human body and three-dimensional models on laboratory practical exams.
10. Infer three-dimensional structures from two-dimensional drawings, pictures, or microscope views, during laboratory.
11. Synthesize information, think independently and reason through new material in a way that not only reflects facts learned about a particular topic but also an understanding of the overall structure and function of the human body, and express this reasoning in discussions and on exams.
12. Explain issues of structure and basic function of the human body in a way that a medical patient could understand.
13. Realize the value of studying every day, accept responsibility for the learning process, and express that understanding in discussions.
14. Assess personal needs in regard to study time and methods, and discuss with instructor.
15. Create useful study materials that enhance learning of course topics. May include flashcards, drawings, diagrams, etc.

16. Work well independently and in small groups. Show both self-direction and motivation, and also contribute to group work.
17. Budget in-laboratory and at-home study time appropriately to learn the material, working at a level and pace that demonstrates preparation for success in professional school. Demonstrate this with steady high scores on assignments or consistent improvements in course work.
18. Show proficiency in taking multiple-choice exams to prepare for testing at the professional school level and for state board exams.
19. Show proficiency in taking lab practical exams, responding to questions quickly and accurately, effectively handling the pressure of a timed exam.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT: List Percents

Overall: Detailed structure and basic functions of human body from an organ system point of view. Within each system the cellular, tissue and whole organ levels are explored, with connections and interactions emphasized.

1. Orientation to the human body and use of correct terminology, including definitions, levels of organization, structure/function of organ systems, anatomical position, regional names, directional terms, planes and sections, and body cavities. (5%)
2. Cell structure and function, including membrane transport, organelles and cell division. (4%)
3. Tissues, including major and subtypes, functions and characteristics, cell junctions, and body membranes. (4%)
4. Integumentary System, including skin layers and cell types, functions, and derivatives of epidermis. (4%)
5. Bones and Skeletal tissues, including function, types of bones, structure of long bones, histology, ossification, growth, remodeling and repair. (4%)
6. Bones of the axial and appendicular skeleton, including telling left from right. (5%)
7. Joints, including structural and functional classifications, and details of synovial joint structure and types of movement. (4%)
8. Muscle Tissue, including the three major types and characteristics of each, focusing mainly on skeletal muscle with a basic description of the sliding filament theory and details of anatomy and fiber types. (4%)
9. Muscles, including lever systems, arrangements of fascicles, group actions, origin and insertion, naming, and details of 61 major muscles of the body. (10%)
10. Nervous Tissue and Organization of Nervous System, including glial cells, structural and functional classifications of neurons, and gray vs. white matter. (4%)
11. Spinal Cord and Spinal Nerves, including protection and coverings, detailed anatomy, reflexes, plexuses and dermatomes. (4%)
12. Brain and Cranial Nerves, including protection and coverings, detailed anatomy, and functional brain areas. (6%)
13. General Senses, including definitions and classification by location, stimulus type and structure, and ascending pathways. (3%)
14. Autonomic Nervous System, including input, output, concept of dual innervation, plexuses, reflexes and control. (2%)
15. Special senses, including structures of smell, taste, vision, hearing and equilibrium. (7%)
16. Cardiovascular System, including blood, heart, pulmonary and systemic circuits, valves, coronary

circulation, intrinsic conduction system, cardiac cycle and heart sounds, types of blood vessels, circulatory routes, and special circulations. (13%)

17. Lymphatic System, including lymphatic vessels and lymph, lymphoid organs and tissues. (2%)

18. Respiratory System, including major processes, conducting zone and respiratory zone. (2%)

19. Digestive System, including alimentary canal and accessory organs. (4%)

20. Urinary System, including kidney, ureters, bladder, urethra, and differences in male vs. female. (3%)

21. Reproductive System, including primary and accessory reproductive organs and compare/contrast male and female, mitosis review and significant differences of meiosis. (4%)

22. Endocrine System, including definition of hormone, general functions and major glands. (2%)

11B.

LAB CONTENT:

LAB CONTENT: List Percents

Overall: Hands-on exploration of the detailed structure and basic functions of the human body.

1. Language of Anatomy, including pronunciation and proper use of anatomical terms. (2%)

2. Microscope, including proper use and care of microscope, calculation of field size and estimation of size of object in field. (5%)

3. Cells and Tissues, including identification of the four major types of tissues and subtypes, with functions and locations for each subtype. (7%)

4. Bone and Skeletal Tissues, including review of bone and cartilage slides, identification of structures on figures and models, and basics of bone markings. (2%)

5. The Skeleton, including film overview of axial and appendicular skeleton, identification of bones/bone markings on skulls, disarticulated and articulated skeletons, finding bones and bone markings on own body, indicating right from left on bones, and identification of joints. (18%)

6. Muscle Tissue, including review of three muscle types, and identification of microscopic structures on figures. (2%)

7. Muscles, including identification of muscles on figures, models, cadaver and own body, and describe actions of muscles. (19%)

8. Nervous Tissue, including identification of structures on figures and slides. (3%)

9. Central Nervous System, including identification of structures on figures, models and slides, demonstration of preserved human brains. (6%)

10. Peripheral Nervous System, including identification of structures on figures, models and slides. (6%)

11. Heart and Blood Vessels, including identification of structures on figures, models and slides, and sheep heart dissection. (6%)

12. Blood, including identification of erythrocytes, platelets and various leukocytes on slides. (3%)

13. Lymphatic System, including identification of structures on figures. (1%)

14. Respiratory System, including identification of structures on slides, figures and models. (5%)

15. Digestive System, including identification of structures on slides, figures and models. (5%)

16. Urinary System, including identification of structures on slides, figures and models, and sheep kidney dissection. (5%)

17. Reproductive System, including identification of structures on slides, figures and models. (5%)

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture

2. Lab

3. Observation and Demonstration

4. Discussion

5. Other: Recitation, reports, and student panels

Films and video programs

Computer-assisted instruction

13. ASSIGNMENTS: 9.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1. Assigned textbook readings and writing answers to questions. 2. Preparation of laboratory reports. 3. Reports and preparation of graphs and charts. 4. Computer-assisted instruction assignments.

ASSIGNMENTS ARE: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

COMPUTATION SKILLS

NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)

SKILL DEMONSTRATION

MULTIPLE CHOICE

OTHER (Describe)

Laboratory reports and homework

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Gerard J. Tortora	<i>Principal of human Anatomy</i> (11/e).	Wiley, -	(2009).
Elaine N. Marieb	<i>Human Anatomy laboratory manual</i> (5/e).	Pearson/Benjamin Cummings, -	(2008).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate?	Yes []	No []
Are nonprint materials adequate?	Yes []	No []
Are electronic/online resources available?	Yes []	No []
Are services adequate?	Yes []	No []

Specific materials and/or services needed have been identified and discussed.
 Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
 B Advance Occupational
 C Occupational
 D Possible Occupational
 E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- BIOL 010: Introduction to Biology
 Subject course and pre/corequisite is: Adjunctive
 Entry Skills: 1. Differentiate between a hypothesis and a theory in writing on exams. 2. Apply the scientific method to laboratory exercises as conducted during lab time. 3. Discuss the principles of biology as the study of living things including biological hierarchies, classification of living things, chemical processes of the cell and organisms. 4. Explain how all organisms are connected by cell structure, energy sources and evolutionary lineage in class discussion and on exams. 5. Explain cellular processes including respiration, photosynthesis, mitosis, meiosis and transcription/translation in class discussion and on exams. 6. Describe taxonomy of living things demonstrating similarities in structures and evolutionary origins on exams. 7. Develop methods for translating biological ideas into own words on exams and class projects. 8. Take an active role in own education by taking personal responsibility for learning, understanding the need to stay on top of material given, and learning to explain topics in own words. 9. Realize the value of studying every day, accept responsibility for the learning process, and express that understanding in discussions. 10. Assess personal needs in regard to study time, methods, and learning style and discuss with

instructor, 11. Apply knowledge of learning styles to acquire more efficient study skills and improve test scores. 12. Improve confidence in scientific knowledge and ability to apply knowledge to related situations in class discussions and on exams. 13. Develop an interest in current topics in science and be able to discuss them with fellow students during class time. 14. Discuss current scientific findings and related news stories in written essays. 15. Recall all reference information learned in class to refresh knowledge of subject matter during review time and for future reference. 16. Be proficient at taking multiple-choice exams to prepare for testing at the next level. 17. Cooperate with others working as a group, delegate work to others, collaborate with group during lab time. 18. Demonstrate proficiency in using and caring for a microscope. 19. Demonstrate proficiency in making a wet mount for use in laboratory class period. 20. Recall information quickly on practical examinations.

- Biol 24 (basic Human anatomy and Physiology)

Subject course and pre/corequisite is:Adjunctive

Entry Skills: 1. Describe the basics of molecular, cellular, tissue, organ, organ system and organismal levels of structure and function for all human organ systems, and apply this information in discussions and on exams. 2. Define and correctly use terminology in regard to basic structure and function of the human body, in discussions and on exams. 3. Label anatomical diagrams using correct terminology on laboratory practical exams. 4. Correctly focus and adjust lighting on microscope slides, to locate and identify tissues and organs of the human body during laboratory. 5. Dissect mammalian organisms/organs and identify parts during laboratory. 6. Recognize and name structures on the human body and three-dimensional models on laboratory practical exams. 7. Infer three-dimensional structures from two-dimensional drawings, pictures, or microscope views, during laboratory. 8. Synthesize basic information, and begin to think independently and reason through new material, and express this reasoning in discussions and on exams. 9. Realize the value of studying every day, accept responsibility for the learning process, and express that understanding in discussions. 10. Assess personal needs in regard to study time and methods, and discuss with instructor. 11. Create useful study materials that enhance learning of course topics. May include flashcards, drawings, diagrams, concept maps, etc. 12. Maintain an organized notebook with important information from lecture and laboratory. 13. Work well independently and in small groups. Show both self-direction and motivation, and also contribute to group work. 14. Budget in-laboratory and at-home study time appropriately to learn the material, working at a level and pace that demonstrates preparation for success in more advanced level courses. Demonstrate this with steady high scores on assignments or consistent improvements in course work. 15. Show proficiency in taking basic level multiple-choice exams to prepare for testing at the professional school level and for state board exams. 16. Show proficiency in taking basic level lab practical exams, responding to questions quickly and accurately, effectively handling the pressure of a timed exam.

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 07/01/2008
ORIGINATOR: Reza Majlesi **STATE CONTROL NUMBER:** CCC000459352
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 004

3. COURSE TITLE:

Human Physiology

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course [] COA Course Changes in Catalog Info [X] COA - Course Reactivation [] COA Course Reactivation [] **TOP** 0410.00 **NO.**

5. UNITS: 5 **HRS/WK LEC:** 4 Total: 70 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Transfers to four-year institutions. Fulfills the requirement for the Science and Health Sciences majors. Fulfills the requirement of Natural Science in General Education for the Associate of Science degree. Required as prerequisite for professional schools in health care (including Registered Nurse, Licensed Vocational Nurse, Nurse Practitioner, Physician Assistant, Dental, Dental Hygiene, Medical and Pharmacy, Radiologic Science). Acceptable for credit: CSU, UC.

8. COURSE/CATALOG DESCRIPTION

Detailed study of human body function: Molecules, cells, tissues, organs and organ systems, basic anatomy essential to understanding function, physical and chemical factors and processes, and selected human diseases. Laboratory work includes computer simulations and interactive programs, physiological experiments and demonstrations, and use of microscopes.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Describe the molecular, cellular, tissue, organ, organ system and organismal levels of structure and function for all human organ systems, and apply this information in discussions and on exams.
2. Define and correctly use terminology in regard to structure and function of the human body, in discussions and on exams.
3. Describe the details of structure and function of the human body and be able to apply them to the "big picture" in discussions and on exams.
4. Synthesize information, think critically and solve critical thinking problems in discussions and written essays.
5. Read and discuss articles related to current issues in physiology. Form opinions on these issues and express and defend those opinions clearly in discussions and written essays.
6. Explain the statistical terms "standard deviation" and "p-value" and their relevance to physiological research, in essay format.
7. Synthesize information, think independently and reason through new material in a way that not only reflects facts learned about a particular topic but also an understanding of the overall structure and function of the human body, and express this reasoning in discussions and on exams.
8. Explain issues of structure and function in a way that a medical patient could understand.
9. Realize the value of studying every day, accept the responsibility for the learning process, and express that understanding in discussions.
10. Assess personal needs in regard to study time and methods, and discuss with instructor.
11. Create useful study materials that enhance learning of course topics. May include flashcards, drawings, diagrams, etc.
12. Correctly focus and adjust lighting on microscope slides, to locate and identify tissues and organs of the human body during laboratory.
13. Work well independently and in small groups. Show both self-direction and motivation, and also contribute to group work.
14. Budget in-laboratory and at-home study time appropriately to learn the material, working at a level and pace that demonstrates preparation for success in professional school. Demonstrate such preparation with steady high scores on assignments or consistent improvements in course work.
15. Show proficiency in taking multiple-choice exams to prepare for testing at the professional

school level and for state board exams.

16. Show proficiency in taking lab practical exams, responding to questions quickly and accurately, effectively handling the pressure of a timed exam.
17. Explain the details of and reasons for universal precautions, and apply universal precautions in the laboratory setting.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT: List Percents

Overall: Detailed function and structure of human body from an organ system point of view. Within each system the molecular, cellular, tissue and whole organ levels are explored, with connections and interactions emphasized.

1. Orientation to physiology, including definitions, mechanistic and teleological approaches, levels of organization, major organ systems, concept of homeostasis and control mechanisms. (4%)
2. Cell Physiology, including parts of typical cells and details of cellular respiration. (4%)
3. Plasma Membrane and Membrane Potential, including fluid mosaic model, cell junctions, membrane transport, intercellular communication and signal transduction, chemical messengers, second messenger systems, and membrane potential. (7%)
4. Neuronal Physiology, including definitions, graded potentials, action potentials, neuron structure, contiguous and saltatory conduction, refractory period, all-or-none law, synapse function, IPSPs and EPSPs, classical neurotransmitters and neuropeptides, concepts of presynaptic inhibition and facilitation, and concepts of convergence and divergence. (6%)
5. Central Nervous System, including organization of nervous system, classification of neurons, protection and nourishment, cortex and selected functional areas, basal nuclei, thalamus, hypothalamus, limbic system, learning and memory, cerebellum, brain stem, sleep, spinal cord, and reflexes. (9%)
6. Peripheral Nervous System (afferent division), including receptor physiology, adaptation, somatosensory pathways, acuity, and pain. (4%)
7. Peripheral Nervous System (efferent division), including autonomic nervous system and concepts of dual innervation, role of adrenal gland, details of receptor proteins; somatic nervous system including motor neurons and neuromuscular junction. (3%)
8. Muscle Physiology, including basics of the three types, skeletal muscle anatomy, sliding filament theory, skeletal muscle mechanics, skeletal muscle metabolism and fiber types, control of skeletal muscle and afferent signals, compare/contrast smooth muscle with skeletal muscle. (6%)
9. Cardiac Physiology, including pulmonary and systemic circuits, valves, electrical activity of autorhythmic and contractile cells, compare/contrast with skeletal and smooth muscle, cardiac cycle, cardiac output and influences of parasympathetic and sympathetic signals, coronary circulation, heart failure, and atherosclerosis. (4%)
10. Blood Vessels and Blood Pressure, including organization and details of vascular tree, short term and long-term regulation of blood pressure, hypertension and hypotension. (4%)
11. Blood, including details of formed elements and plasma, and process of hemostasis. (3%)
12. Body Defenses, including external defenses (skin and mucous membranes), defense cells, nonspecific defenses (inflammation, phagocytes, interferon, natural killer cells, complement system) and specific immune responses (antibody mediated and cell mediated immunity). (4%)
13. Respiratory System, including definitions, list of functions, functional anatomy of airways and respiratory zone, respiratory mechanics, gas exchange, gas transport, and control of respiration. (5%)

14. Urinary System, including list of functions, details of nephron, types of nephrons, glomerulus, juxtaglomerular apparatus, details of three major renal processes for major ions/nutrients/wastes (glomerular filtration, tubular reabsorption, tubular secretion), variation in urine solute concentration (countercurrent mechanism and hormonal influences), and micturition. (7%)
15. Digestive System, including four major digestive processes, influences of nervous system and hormones, exploration of details of each portion of alimentary canal and accessory organs. (4%)
16. Endocrine System, including definitions and link to nervous system, general functions, three major categories of hormones, categories of disorders (hyposecretion, hypersecretion, abnormality of target cell), receptor responsiveness, details of each endocrine gland and the major hormones produced, actions of those hormones and feedback mechanisms, details of most common endocrine disorders (hypo/hyperthyroid, diabetes). (8%)
17. Reproductive System including essential functions in the male/female, sex differentiation, spermatogenesis, semen, oogenesis, ovarian cycle, uterine cycle and other information as time permits (fertilization, early development, implantation, placentation, labor and birth). (4%)
18. Critical Thinking activities, including group work on diagnosis of disorders based on symptoms and explanations of processes. (14%)

11B.

LAB CONTENT:

LAB CONTENT: List Percents

Overall: Hands-on experience with processes and concepts, and visual explanations of processes of the human body.

1. Overview of Organ Systems, including identification of major organs on models, and naming of major organ systems, functions and organs. (2%)
2. Microscope, including proper use and care of microscope, calculation of field size and estimation of size of object in field. (5%)
3. Cells and Tissues, including identification of the four major types of tissues and subtypes, with functions and locations for each subtype. (7%)
4. Transport, including wet lab and computer simulations (PhysioEx) of diffusion and transport through membranes. (7%)
5. Nervous System, including computer simulation (ADAM) of neuron anatomy and establishment of membrane potential and action potentials. (9%)
6. Reflexes and Senses, including various experiments with human reflexes and sensory physiology. (7%)
7. Muscular System, including computer simulation (ADAM) of muscle anatomy and function on the microscopic and whole muscle level. (7%)
8. Whole Muscle Function, including computer simulation of frog muscle (PhysioEx). Spring Semester only. (7%)
9. ECG and Cardiovascular System, including recording, reading and interpreting ECG recordings for baseline activity and exercise, measuring heart rate with ECG, listening to heart sounds, discussion of murmurs, and measurement of pulse and blood pressure. (7%)
10. Cardiovascular System, including computer simulation (PhysioEx) of frog heart function and effects of electrical stimulation, temperature and chemical substances, and computer simulation (ADAM) of heart muscle function. (6%)
11. Blood, including concept of blood typing with simulated blood, concept and practice of universal precautions in handling body fluids, testing own blood for type, hemoglobin content and hematocrit. (7%)
12. Blood Slides, including identification of erythrocytes, platelets and various leukocytes, and defining causes of anemia and polycythemia. (2%)
13. Respiratory System, including measurement of respiratory capacities and volumes, and identification of structures on slides. (8%)
14. Urinary System, including analysis of simulated urine samples and determination of origin of any detected abnormalities, and identification of structures on slides. (7%)
15. Digestive System, including determination of appropriate conditions for enzymatic digestion of

carbohydrates, proteins and fats, and identification of structures on slides. (7%)

16. Acid/Base, including measurement of pH of various solutions and determination of the function of a buffer and the role of plasma as a buffer. (1%)

17. Discussion of assigned articles read outside of class. (4%)

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Lab
3. Observation and Demonstration
4. Discussion
5. Other: Recitation, reports, and student panels
 - Films and video programs
 - Computer-assisted instruction

13. ASSIGNMENTS: 9.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1. Assigned textbook readings and writing answers to questions. 2. Preparation of laboratory reports. 3. Reports and preparation of graphs and charts. 4. Computer-assisted instruction assignments.

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
 NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
 SKILL DEMONSTRATION
 MULTIPLE CHOICE
 OTHER (Describe)
Laboratory reports and homework

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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Silverthorne	<i>Human Physiology (4/e).</i>	Pearson/ Benjamin-Cummings, -	(2008).
College of Alameda	<i>Human Physiology Lab Manual</i>	College of Alameda, -	(2008).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes [] No []

Are nonprint materials adequate? Yes [] No []

Are electronic/online resources available? Yes [] No []

Are services adequate? Yes [] No []

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- CHEM 001A: General Chemistry

Subject course and pre/corequisite is: Adjunctive

Entry Skills: 1. Solve a wide variety of numerical problems involving all of the topics listed in the course content section. 2. Calculate numerical answers and round the results to the appropriate number of significant figures. 3. Compare and contrast the differences between the states and types of matter, at both the macroscopic and the molecular level. 4. Apply rules of nomenclature to name different types of compounds and write their formulas. 5. Balance chemical equations and calculate the quantity of products obtained in chemical reactions. 6. Predict the products and write equations for double-displacement reactions. 7. Give a molecular level explanation of each of the gas laws. 8. Determine the electronic structure of atoms and predict or explain their periodic properties. 9. Diagram the electron-dot (Lewis) structure of any molecule, and use it to predict the three-dimensional shape and polarity of the molecule. 10. Discuss the types of intermolecular forces present in various substances, and evaluate the relative strengths of those forces. 11. Predict relative solubilities of various compounds. Estimate the values of colligative properties of solutions. 12. Accurately measure quantities in the laboratory. Work safely and efficiently in the laboratory. 13. Organize data and calculations clearly in laboratory reports. Analyze the results of laboratory experiments.

- CHEM 030A: Introductory General Chemistry

Subject course and pre/corequisite is: Adjunctive

Entry Skills: 1. Solve numerical problems involving the topics listed in the course content: unit conversions, density, heat, stoichiometry, gas laws, solution concentrations, pH, titrations. 2. Calculate numerical answers and round the results to the appropriate number of significant figures. 3. Discuss the differences between the states and types of matter. 4. Discuss and diagram the structure of the atom and electron configurations. 5. Apply rules of nomenclature to name different types of compounds and write formulas. 6. Predict the products and write equations for double-displacement reactions. 7. Balance and classify chemical equations. 8. Determine electron-dot structures and overall geometry of small molecules. 9. Explain the origin of the properties of gases at the molecular level. 10. Discuss types of intermolecular forces present in various substances, and evaluate the relative strengths of those forces. 11. Compare and contrast the properties of acids and bases. 12. Work safely and efficiently in the laboratory. Accurately measure quantities in the laboratory. 13. Analyze the results of laboratory experiments.

Recommended Preparation:

- BIOL 002: Human Anatomy

Subject course and pre/corequisite is: Adjunctive

Entry Skills: 1. Describe the molecular, cellular, tissue, organ, organ system and organismal levels of structure for all human organ systems, and apply this information in discussions and on exams. 2. Define and correctly use terminology in regard to structure of the human body, in discussions and on exams. 3. Describe the details of structure of the human body and be able to apply them to the "big picture" in discussions and on exams. 4. Describe the basics of the molecular, cellular, tissue, organ, organ system and organismal levels of function for all human organ systems, and apply this information in discussions and on exams. 5. Define and correctly use terminology in regard to basic function of the human body, in discussions and on exams. 6. Label anatomical diagrams using correct terminology on laboratory practical exams. 7. Correctly focus and adjust lighting on microscope slides, to locate and identify tissues and organs of the human body during laboratory. 8. Dissect mammalian organs and identify parts during laboratory. 9. Recognize and name structures on the human body and three-dimensional models on laboratory practical exams. 10. Infer three-dimensional structures from two dimensional drawings, pictures, or microscope views, during laboratory. 11. Think independently and reason through new material in a way that not only reflects facts learned about a particular topic but also an understanding of the overall structure and function of the human body, and express this reasoning in discussions and on exams.

12. Explain issues of structure and basic function of the human body in a way that a medical patient could understand. 13. Realize the value of studying every day, accept responsibility for the learning process, and express that understanding in discussions. 14. Assess personal needs in regard to study time and methods, and discuss with instructor. 15. Create useful study materials that enhance learning of course topics. May include flashcards, drawings, diagrams, etc. 16. Work well independently and in small groups. Show both self-direction and motivation, and also contribute to group work. 17. Budget in-laboratory and at-home study time appropriately to learn the material, working at a level and pace that demonstrates preparation for success in professional school. Demonstrate this with steady high scores on assignments or consistent improvements in course work. 18. Show proficiency in taking multiple-choice exams to prepare for testing at the professional school level and for state board exams. 19. Show proficiency in taking lab practical exams, responding to questions quickly and accurately, effectively handling the pressure of a timed exam.

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: Krista Granieri **STATE CONTROL NUMBER:** CCC000348875
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO: BIOL 010 **3. COURSE TITLE:** Introduction to Biology

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info[X] COA New Course [] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP** 0401.00 **NO.**

5. UNITS: 4 **HRS/WK LEC:** 3 Total: 52.5 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE
 Transfers to CSU and UC Fulfills requirement of natural science in general education for the AA degree.

8. COURSE/CATALOG DESCRIPTION
 Introduction to biology through study of the structure, function, interrelationships, genetics, ecology and evolution of all life forms. Enhanced with selected laboratory experiments and required field trips. Not open for credit to students who have completed or are currently enrolled in BIOL 1A or 1B.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
CSU(Area B2) IGETC (Area 5)
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Apply reasoning skills successfully in order to recognize and formulate concepts central to the field of biology, and analyze the impact that these concepts have on plant and animal life
2. Pose and solve problems of biological import by employing systematic questioning and analyzing of data and alternatives to either support or negate hypotheses related to specific study such as genetics, etc.;
3. Present findings, solutions or conclusions in written or oral presentations which attempt to address biological issues or problems of a personal or global nature;
4. Use critical thinking skills and biological expertise to sift mass-market information and make informed decisions regarding general biological issues.
5. Participate as a member of a team to carry out laboratory experiments, dissections and exercises.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT: List Percents

1. Scientific method 3%

Including: metric measurement, contributions of Pasteur and Tyndall, historical and current overview of hypothesis generation and testing, development and acceptance of theories, peer review process and methods of scientific communication.

2. Chemical principles 2%

Including: atoms, elements, subatomic particles, chemical bonds, properties of water, pH, structure and functions of carbohydrates, lipids, nucleic acids and proteins.

3. Cellular/subcellular anatomy and physiology 10%

Including: Cell Theory, contributions of Hook, Leeuwenhoek and others, diversity and types of cells,

structure and function of organelles, cellular communication, mechanisms for the movement of substances in/out of cells.

4. Cell division 10%

Including: various mechanisms utilized by organisms such as mitosis, meiosis, binary fission and budding. Relationship to sexual and asexual reproduction, inheritance and cell division.

5. Cellular Respiration & Photosynthesis 10%

Including: Energy transformations and thermodynamics, structure and function of ATP and other energy-related molecules, Enzyme function, Oxidative Phosphorylation and photosynthesis.

6. Origins & Diversity of Life 10%

Including: Geological timescale, fossils, taxonomy and phylogeny of the six kingdoms and three domains of life, trends in evolutionary history, adaptations of plants and animals to land, basic characteristics of the various phyla of plants, animals, fungi, protists, bacteria and archae.

7. Evolution and natural selection 10%

Including: the history of the Theory of Evolution, contributions of Darwin, Wallace and others, mechanisms and types of natural selection, microevolution and allele frequencies, macroevolution and speciation, evidence for evolution, Modern Synthesis.

8. Patterns of Inheritance 10%

Including: contributions of Mendel, phenotypes, genotypes, allelic variations, Punnett squares, dominance patterns, chromosome structure and aberrations, genetic disorders, sex linked diseases.

9. DNA structure and function 10%

Including: Molecular structure of DNA, contributions of Franklin, Watson, Crick and others, replication, mutation, mechanisms and regulation of protein synthesis, biotechnology applications.

10. Human anatomy and physiology 10%

Including: structures and functions of various body systems, hierarchy of tissues, organs, organ systems, optional health topics (such as diet, cardio fitness, drug use, mental health).

11. Human reproduction and development 5%

Including: reproductive system structures and functions, contraception, pregnancy and development, sexually transmitted infections.

12. Ecology 10%

Including: Biomes of the world, population dynamics and community ecology, co-evolution, trophic levels, energy cycling and ecosystems, global climate change, conservation ecology.

11B.

LAB CONTENT:

Lab Materials & Methods: Scientific Method, Metric System	6.25%
Microscopy & cellular and sub-cellular structures	12.50%
Functions of biological membranes: diffusion and osmosis	6.25%
Cellular metabolism	6.25%
Human reproduction & development	6.25%
Plant Diversity, Anatomy & Ecology	6.25%
Animal Diversity, Anatomy & Ecology	6.25%
Human Anatomy & Physiology	12.50%
Genetics	6.25%
DNA Structure & Function	6.25%

Biochemistry & Nutrition
Microbial Diversity, Anatomy & Ecology
Cell Division
Ecology

6.25%
6.25%
6.25%
6.25%

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Lab
3. Discussion
4. Other:
 1. Instructor-led and/or small group discussion of biology-related case studies.
 2. Instructor-driven lecture on biological concepts and related topics.
 3. Multimedia presentations to illustrate specific areas of interest.
 4. Optional field trips to increase knowledge of applied biology.
 5. Instructor demonstration and student repetition of laboratory techniques.
 6. Laboratory investigations into applied biology.

13. ASSIGNMENTS: 7.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1. Assigned readings from textbook and/or primary scientific research 2. Library/internet research 3. Written laboratory reports 4. Worksheets requiring diagramming, answering open ended questions, quantitative analysis

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
 NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
 SKILL DEMONSTRATION
 MULTIPLE CHOICE
 OTHER (Describe)

1. Evaluation of written understanding of topic and ability to solve a novel problem.
2. Evaluation of ability to use basic math to solve biological problems.
3. Evaluation of ability to employ systematic questioning and data analysis.
4. Assessing understanding of structure-function relationships and biological terminology.

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Krogh	<i>Biology: A Guide to the Natural World (5/e).</i>	Benjamin Cummings, -	(2010).
COA Biology Department	<i>Biology 10 Lab Manual</i>	-Available through Kinkos, -	(2011).
Campbell	<i>Biology: Concepts and Connections (7th/e).</i>	Pearson,	(2012).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

Laboratory exercises in photocopy form

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: Krista Granieri **STATE CONTROL NUMBER:** CCC000363796
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO: BIOL 011 **3. COURSE TITLE:** Principles of Biology

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info[X] COA New Course [] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP** 0401.00 **NO.**

5. UNITS: 3 **HRS/WK LEC:** 3 Total: 52.5 **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE
 Transfers to four-year institutions. Fulfills the requirement for the Science major. Fulfills the requirement of Natural Science in General Education for the Associate of Science degree. Acceptable for credit: CSU, UC.

8. COURSE/CATALOG DESCRIPTION
 Fundamentals of biology for the non-major: Scientific inquiry, biological chemistry, cell structure and function, DNA and genetics, evolution and ecology, and an overview of living organisms.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only [X]
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
Certificate of Achievement in Biotechnology
- g. Meets GE/Transfer requirements (specify):
Acceptable for credit at CSU and UC, AA/AS area 1, CSU area B2, IGETC area 5
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Differentiate between a hypothesis and a theory in writing on exams.
2. Discuss the principles of biology as the study of living things including biological hierarchies, classification of living things, chemical processes of the cell and organisms.
3. Explain how all organisms are connected by cell structure, energy sources and evolutionary lineage in class discussion and on exams.
4. Explain cellular processes including respiration, photosynthesis, mitosis, meiosis and transcription/translation in class discussion and on exams.
5. Describe taxonomy of living things demonstrating similarities in structures and evolutionary origins on exams.
6. Develop methods for translating biological ideas into own words on exams and class projects.
7. Take an active role in own education by taking personal responsibility for learning, understanding the need to stay on top of material given, and learning to explain topics in own words.
8. Realize the value of studying every day, accept responsibility for the learning process, and express that understanding in discussions.
9. Assess personal needs in regard to study time, methods, and learning style and discuss with instructor;
10. Apply knowledge of learning styles to acquire more efficient study skills and improve test scores.
11. Improve confidence in scientific knowledge and ability to apply knowledge to related situations in class discussions and on exams.
12. Develop an interest in current topics in science and be able to discuss them with fellow students during class time.
13. Discuss current scientific findings and related news stories in written essays.
14. Recall all reference information learned in class to refresh knowledge of subject matter during review time and for future reference.
15. Be proficient at taking multiple-choice exams to prepare for testing at the next level.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT: List Percents

1. Scientific method 3%

Including: metric measurement, contributions of Pasteur and Tyndall, historical and current overview of hypothesis generation and testing, development and acceptance of theories, peer review process and methods of scientific communication.

2. Chemical principles 2%

Including: atoms, elements, subatomic particles, chemical bonds, properties of water, pH, structure and functions of carbohydrates, lipids, nucleic acids and proteins.

3. Cellular/subcellular anatomy and physiology 10%

Including: Cell Theory, contributions of Hook, Leeuwenhoek and others, diversity and types of cells, structure and function of organelles, cellular communication, mechanisms for the movement of substances in/out of cells.

4. Cell division 10%

Including: various mechanisms utilized by organisms such as mitosis, meiosis, binary fission and budding. Relationship to sexual and asexual reproduction, inheritance and cell division.

5. Cellular Respiration & Photosynthesis 10%

Including: Energy transformations and thermodynamics, structure and function of ATP and other energy-related molecules, Enzyme function, Oxidative Phosphorylation and photosynthesis.

6. Origins & Diversity of Life 10%

Including: Geological timescale, fossils, taxonomy and phylogeny of the six kingdoms and three domains of life, trends in evolutionary history, adaptations of plants and animals to land, basic characteristics of the various phyla of plants, animals, fungi, protists, bacteria and archae.

7. Evolution and natural selection 10%

Including: the history of the Theory of Evolution, contributions of Darwin, Wallace and others, mechanisms and types of natural selection, microevolution and allele frequencies, macroevolution and speciation, evidence for evolution, Modern Synthesis.

8. Patterns of Inheritance 10%

Including: contributions of Mendel, phenotypes, genotypes, allelic variations, Punnett squares, dominance patterns, chromosome structure and aberrations, genetic disorders, sex linked diseases.

9. DNA structure and function 10%

Including: Molecular structure of DNA, contributions of Franklin, Watson, Crick and others, replication, mutation, mechanisms and regulation of protein synthesis, biotechnology applications.

10. Human anatomy and physiology 10%

Including: structures and functions of various body systems, hierarchy of tissues, organs, organs systems, optional health topics (such as diet, cardio fitness, drug use, mental health).

11. Human reproduction and development 5%

Including: reproductive system structures and functions, contraception, pregnancy and development, sexually transmitted infections.

12. Ecology 10%

Including: Biomes of the world, population dynamics and community ecology, co-evolution, trophic levels, energy cycling and ecosystems, global climate change, conservation ecology.

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Discussion
3. Other: 1. Instructor-led and/or small group discussion of biology-related case studies.
2. Instructor-driven lecture on biological concepts and related topics.
3. Multimedia presentations to illustrate specific areas of interest.
4. Optional field trips to increase knowledge of applied biology.
5. Instructor demonstrations.

13. ASSIGNMENTS: 6 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1. Assigned readings from textbook and/or primary scientific research 2. Library/internet research 3. Worksheets requiring diagramming, answering open ended questions, quantitative analysis

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
 NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
 SKILL DEMONSTRATION
 MULTIPLE CHOICE
 OTHER (Describe)

1. Evaluation of written understanding of topic and ability to solve a novel problem.
2. Evaluation of ability to use basic math to solve biological problems.
3. Evaluation of ability to employ systematic questioning and data analysis.
4. Assessing understanding of structure-function relationships and biological terminology.

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Krogh	<i>Biology: A Guide to the Natural World, (5/e).</i>	Benjamin Cummings, -	(2010).
Campbell	<i>Biology: Concepts and Connections (7th/e).</i>	Pearson,	(2012).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes [] No []
 Are nonprint materials adequate? Yes [X] No []
 Are electronic/online resources available? Yes [X] No []
 Are services adequate? Yes [X] No []

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- [X] Primarily college level
 [] NOT primarily college level

16. Designate Occupational Code (check ONE only):

- [] A Apprenticeship
 [] B Advance Occupational
 [] C Occupational
 [] D Possible Occupational
 [X] E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000363181
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit []	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 016

3. COURSE TITLE:

BIOL 016

4. COURSE: COA New Fee Based Course []
COA Course Changes only in Non-Catalog Info []
COA New Course[X]
COA Course Changes in Catalog Info []
COA - Course Reactivation []
COA Course Reactivation []
TOP NO.

5. UNITS: **HRS/WK LEC:** 0 Total: **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

8. COURSE/CATALOG DESCRIPTION

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes No If yes, how many modules:
 - b. Open entry/open exit: Yes No
 - c. Grading Policy: Both Letter Grade or Pass/No Pass Pass/No Pass Letter Grade Only
 - d. Eligible for credit by Exam: Yes No
 - e. Repeatable according to state guidelines: Yes No If yes, number of allowable repeats:
 - f. Required for degree/certificate (specify):
 - g. Meets GE/Transfer requirements (specify):
 - h. C-ID Number:
- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes No

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
- Are nonprint materials adequate? Yes No
- Are electronic/online resources available? Yes No
- Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000355453
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit []	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 018

3. COURSE TITLE:

BIOL 018

4. COURSE: COA New Fee Based Course []
COA Course Changes only in Non-Catalog Info []
COA New Course[X]
COA Course Changes in Catalog Info []
COA - Course Reactivation []
COA Course Reactivation [] **TOP NO.**

5. UNITS: **HRS/WK LEC:** 0 **Total:** **HRS/WK LAB:** 0 **Total:** **HRS/WK TBA:** 0 **Total:**

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

8. COURSE/CATALOG DESCRIPTION

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- [] Primarily college level
- [] NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- [] ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
- Are nonprint materials adequate? Yes No
- Are electronic/online resources available? Yes No
- Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000370575
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit []	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
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Course Is A Basic Skill Course []

2. DEPT/COURSE NO:

BIOL 019

3. COURSE TITLE:

BIOL 019

4. COURSE: COA New Fee Based Course []
COA Course Changes only in Non-Catalog Info []
COA New Course [X]
COA Course Changes in Catalog Info []
COA - Course Reactivation []
COA Course Reactivation [] **TOP NO.**

5. UNITS: **HRS/WK LEC: 0 Total:** **HRS/WK LAB: 0 Total:** **HRS/WK TBA: 0 Total:**

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

8. COURSE/CATALOG DESCRIPTION

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
 - b. Open entry/open exit: Yes [] No [X]
 - c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only []
 - d. Eligible for credit by Exam: Yes [] No [X]
 - e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
 - f. Required for degree/certificate (specify):
 - g. Meets GE/Transfer requirements (specify):
 - h. C-ID Number:
- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- [] Primarily college level
- [] NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- [] ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
- Are nonprint materials adequate? Yes No
- Are electronic/online resources available? Yes No
- Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000376549
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit []	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
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Course Is A Basic Skill Course
[]

2. DEPT/COURSE NO:

BIOL 028

3. COURSE TITLE:

BIOL 028

4. COURSE: COA COA COA New COA COA - Course COA Course **TOP**
New Fee Course Course[X] Course Reactivation[] Reactivation[] **NO.**
Based Changes only in Changes
Course[] Non-Catalog in
Info[] Catalog
Info[]

5. UNITS: **HRS/WK LEC:** 0 Total: **HRS/WK LAB:** 0 **HRS/WK TBA:** 0 Total:
Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

8. COURSE/CATALOG DESCRIPTION

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
 - b. Open entry/open exit: Yes [] No [X]
 - c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only []
 - d. Eligible for credit by Exam: Yes [] No [X]
 - e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
 - f. Required for degree/certificate (specify):
 - g. Meets GE/Transfer requirements (specify):
 - h. C-ID Number:
- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- [] Primarily college level
- [] NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- [] ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
- Are nonprint materials adequate? Yes No
- Are electronic/online resources available? Yes No
- Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: Reza Majlesi **STATE CONTROL NUMBER:** CCC000368604
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO: BIOL 031 **3. COURSE TITLE:** Nutrition

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course [] COA Course Changes in Catalog Info [X] COA - Course Reactivation [] COA Course Reactivation [] **TOP** 0401.00 **NO.**

5. UNITS: 4 **HRS/WK LEC:** 4 Total: 70 **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Transfers to 4-year institutions. Fulfills the requirement for the science major. Fulfills the requirement of Natural Sciences in General Education for the Associate in Science Degree. Acceptable for credit: UC and USC

8. COURSE/CATALOG DESCRIPTION

Principle of human nutrition: Food from which nutrients come, the way in which the body make use of nutrients and problems of over and under nutrition

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Upon completion of this course, the student should possess sufficient knowledge and critical thinking skills to demonstrate the following:
 1. To analyze and evaluate the relationship between diet and health by comparing and contrasting food and nutrients as to their use and abuse;
 2. To determine through analysis of data the types, quantity, and safety of food presently available in the United States;
 3. To pose problems and seek solutions relative to information gathering in the "marketplace" to assist in sound decision making pertaining to personal nutrition and health;
 4. To present findings and conclusions based on systematic research through written assignments and/or oral reports which enhance the role of nutrition in personal health practices.

Competency #1: Resources: Identifies, organizes, plans and allocates resources.

1. Time – selects goal-relevant activities, ranks them, allocates time and prepares and follows schedules. Materials and facilities – acquires, stores, allocates and uses materials or space efficiently.

Competency #2: Interpersonal: Works with others

1. Participates as member of a Team – contributes to group efforts. Exercises Leadership – communicates ideas to justify position, persuades, and convinces others, responsibly challenges existing procedures and policies. Negotiates - works toward agreements involving exchange of resources, resolves divergent interests. Works with Diversity – works well with men and women from diverse backgrounds.

Competency #3: Information: Acquires and uses information

1. Acquires and evaluates information Organizes and maintains information Interprets and communicates information

Competency #4: Systems: Understands complex interrelationships

1. Understands Systems – knows how social, organizational, and technological systems work and operates effectively with them.

Competency #5: Technology: Works with a variety of technologies.

1. Applies Technology to Task – understand overall intent and proper procedures for setup and operation of equipment. Maintains and troubleshoots equipment – prevents, identifies, or solves problems with equipment, and other technologies.

Skill #1: Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens and speaks

1. Reading – locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules. Writing – communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters,

directions, manuals, reports, graph, and flow-chart. Arithmetic/Mathematics – performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques. Listening – receives, attends to, interprets and responds to verbal messages and other cues

Skill #2: Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn and reason.

1. Creative Thinking – generates new ideas. Decision-Making – specific goals and constraints, generate alternative, considers risks, evaluates and chooses best alternative. Problem Solving – recognizes problems and devises and Implements plan of action. Seeing things in the mind's eye – organizes and processes symbols, pictures, graphs, objects, and other information. Reasoning – discovers a rule or principle underlying the relationship between two or more objects and applies it in solving problems.

Skill #3: Personal Qualities: Displays responsibility, self-esteem sociability, self-management, and integrity and honesty.

1. Responsibility – exerts a high level of effort and perseveres towards goal attainment. Sociability – assesses self accurately, sets personal goals, monitors progress, and exhibits self-control. Integrity/Honesty – chooses ethical courses of action.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

- 10% 1. Definition of nutritional terms.
- 10% 2. Social and cultural factors affecting nutrition.
- 10% 3. Digestion, absorption, and metabolism.
- 15% 4. Basic nutrients:
 - a. Carbohydrates
 - b. Fats
 - c. Proteins
 - d. Vitamins
 - e. Minerals
 - f. Water
- 15% 5. Food in the life cycle:
 - a. Pregnancy
 - b. Lactation
 - c. Childhood
 - d. Teens
 - e. Adulthood
 - f. Aging
- 10% 6. Weight loss and weight gain:
- 15% 7. Diet and disease:
 - a. Chronic disease
 - b. Dental
 - c. Food borne diseases
 - d. Additives
- 15% 8. Consumerism:
 - a. Menu selection and budgeting
 - b. Food protection legislation

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

- 1. Lecture
- 2. Field Trips
- 3. Mediated Learning
- 4. Other: Audiovisual aids
Anatomical models

13. ASSIGNMENTS: 8 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1. Reading, text and supplemental materials 2. Computer analysis of diet 3. Individual analysis of diet 4. Library research

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)
Discussion

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Sizer and Whitney	<i>Nutrition, Concepts and Controversies (12/e).</i>	West Publishing Co., Minneapolis, MN	(2011). Rationale: -

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000380353
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 048AB

3. COURSE TITLE:

Winter Birds and Habitats of Alameda National Wildlife Refuge

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course [X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP** 0401.00 **NO.**

5. UNITS: 1 **HRS/WK LEC:** 6 Total: 105 **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Requests from individuals for information and class about birds of new Alameda Refuge.

8. COURSE/CATALOG DESCRIPTION

Introduction to the birds and habitats of Alameda National Wildlife Refuge in the Winter. Lectures in class and at the Refuge.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Know and understand habitats of Alameda Refuge.
2. Identify Winter birds of the Refuge.
3. Investigate interactions of birds and habitats in Winter at the Refuge.
4. Investigate migration and behavior of Winter birds at the Refuge.

Competency #3: Information: Acquires and uses information

1. a. Acquires and Evaluates information b. Organizes and Maintains information c. Interprets and Communicates information

Skill #1: Basic Skills: Read, Writes, Performs Arithmetic and Mathematical operations, listens and speaks

1. a. Reading – locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules. b. Writing – communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts. c. Listening – receives, attends to, interprets, and responds to verbal messages and other cues.

Skill #2: Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn and reason

1. a. Seeing Things in the Mind's Eye – Organizes and processes symbols, pictures, graphs, objects, and other information. b. Reasoning – discovers a rule or principle underlying the relationship between two or more objects and applies it in solving problems.

Skill #3: Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty.

1. a. Responsibility – exerts a high level of effort and perseveres towards goal attainment.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

5% Brief history of Alameda National Wildlife Refuge.

25% Identify, describe, and discuss habitats at Refuge.

70% Identify, describe, and discuss birds and their migration and behavior using the Refuge in the Winter.

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture

2. Other: Slides

Lectures and observations in the field

13. ASSIGNMENTS: 12 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: Learn birds and habitats described and observed in class. Observations in the field outside of class time using field guides.

ASSIGNMENTS ARE: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

COMPUTATION SKILLS

NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)

SKILL DEMONSTRATION

MULTIPLE CHOICE

OTHER (Describe)

Discussions

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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Dunn & Blom	<i>Field Guide to the Birds of North America National Geographic</i> (3/e).	National Geographic Society, -	(1999). Rationale: -
Handouts Binoculars			

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed.
Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000357797
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 048AC

3. COURSE TITLE:

Spring Birds and Habitats of Alameda National Wildlife Refuge

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP** 0410.00 **NO.**

5. UNITS: 1 **HRS/WK LEC:** 6 Total: 105 **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Requests from individuals for information and class about birds of new Alameda Refuge.

8. COURSE/CATALOG DESCRIPTION

Introduction to birds and habitats of Alameda National Wildlife Refuge in Spring. Lectures in class and at the Refuge

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Know and understand habitats of Alameda Refuge.
2. Identify Spring birds at Refuge.
3. Investigate interactions of birds and habitats at Refuge in Spring.
4. Investigate migration and behavior of birds at Refuge.

Competency #3: Information: Acquires and uses information

1. a. Acquires and Evaluates information b. Organizes and Maintains information c. Interprets and Communicates information

Skill #1: Basic Skills: Read, Writes, Performs Arithmetic and Mathematical operations, listens and speaks

1. a. Reading – locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules. b. Writing – communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts. c. Listening – receives, attends to, interprets, and responds to verbal messages and other cues.

Skill #2: Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn and reason

1. a. Seeing Things in the Mind's Eye – Organizes and processes symbols, pictures, graphs, objects, and other information. b. Reasoning – discovers a rule or principle underlying the relationship between two or more objects and applies it in solving problems.

Skill #3: Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

5% Brief history of Alameda Refuge.

25% Identify, describe, and discuss habitats at Refuge.

70% Identify, describe, and discuss birds and their migration and behavior using the Refuge in the Spring.

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

- 1. Lecture
- 2. Other: Slides
In field lectures and observations

13. ASSIGNMENTS: 12 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: Learn birds and habitats described and observed in class. Observations in the field outside of class time using field guides.

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)
Discussions

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Dunn & Blom	<i>Field Guide to the Birds of North America National Geographic</i> (3/e).	National Geographic Society, -	(1999). Rationale: -
Handouts Binoculars			

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed.

Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000372487
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 048AD

3. COURSE TITLE:

Bay Area Butterflies

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP 0401.00 NO.**

5. UNITS: 1 **HRS/WK LEC:** 3 Total: 52.5 **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

a. Requests from students for natural history/ecology course b. Opportunity to use a popular taxon to present ecological principles.

8. COURSE/CATALOG DESCRIPTION

Introduction to the natural history of Bay Area Butterflies, including life cycle, species relationships, survival and reproductive strategies, and ecological/geographical distribution. Lectures in class and in the field.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Investigate life history stages, including general anatomical, physiological and behavioral differences between each stage.
2. Analyze butterfly taxonomy at the family level.
3. Analyze the reasons for endangerment and extinction in local butterflies.
4. Identify common butterflies.
5. Explore the evolutionary relationship between certain butterflies and their food plants.

Competency #3: Information: Acquires and uses information

1. a. Acquires and Evaluates information b. Organizes and Maintains information c. Interprets and Communicates information

Skill #1: Basic Skills: Read, Writes, Performs Arithmetic and Mathematical operations, listens and speaks

1. a. Reading – locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules. b. Writing – communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts. c. Listening – receives, attends to, interprets, and responds to verbal messages and other cues.

Skill #2: Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn and reason

1. a. Seeing Things in the Mind's Eye – Organizes and processes symbols, pictures, graphs, objects, and other information. b. Reasoning – discovers a rule or principle underlying the relationship between two or more objects and applies it in solving problems.

Skill #3: Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty.

1. Responsibility – exerts a high level of effort and perseveres towards goal attainment.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

- 5% Introduction to biotic communities of the Bay Area.
- 10% Describe generalized butterfly life history.
- 5% Describe taxonomic relationships.
- 25% Term paper on individual species or other pertinent topic.
- 10% Butterfly/plant co-evolution.
- 5% Human/butterfly interactions.
- 40% Identification/discussion of butterflies in the field.

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Other: Slides
 - Field demonstrations and discussions
 - Library research

13. ASSIGNMENTS: 6 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: Formal term paper on a topic acceptable to instructor. Observations and identification of butterflies outside of class time using checklist and field guide.

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

Additional objective test questions, such as fill-in-blank, matching, short (2-3 sentences) answer.

15. TEXTS, READINGS, AND MATERIALS:

- A. Textbooks:
-

Author	Title and Edition	Publisher	Date of Publication*
Tilden, J.W. and A.C. Smith	<i>A Field Guide to Western Butterflies</i>	Houghton Mifflin Co., -	(1986). Rationale: -
Steiner, S.J.	<i>Butterflies of the S.F. Bay Region; A County Species List (5/e).</i>	S.F. Bay Wildlife Society , -	(1997). Rationale: -

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed.
Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000349737
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 048AE

3. COURSE TITLE:

Arrowhead Marsh Wetlands Education

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP** 0401.00 **NO.**

5. UNITS: 0.5 **HRS/WK LEC:** 0 Total: **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Program offered with Golden Gate Audubon Society to provide training (educational background) for teachers.

8. COURSE/CATALOG DESCRIPTION

Survey of wildlife, plants and ecosystems of Arrowhead Marsh prepares teachers to lead classroom and field activities related to Arrowhead Marsh.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Relate water quality tests to ecological concepts such as foodwebs and discuss test results in context of ecological concepts.
2. Demonstrate ability to work in teams on problem solving
3. Verbally demonstrate knowledge and understanding of items in #12

Competency #3: Information: Acquires and uses information

1. a. Acquires and Evaluates information b. Organizes and Maintains information c. Interprets and Communicates information

Skill #1: Basic Skills: Read, Writes, Performs Arithmetic and Mathematical operations, listens and speaks

1. a. Reading – locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules. b. Writing – communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts. c. Listening – receives, attends to, interprets, and responds to verbal messages and other cues.

Skill #2: Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn and reason

1. a. Seeing Things in the Mind's Eye – Organizes and processes symbols, pictures, graphs, objects, and other information. b. Reasoning – discovers a rule or principle underlying the relationship between two or more objects and applies it in solving problems.

Skill #3: Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty.

1. Responsibility – exerts a high level of effort and perseveres towards goal attainment.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

- 10% History of Arrowhead Marsh
- 10% Human relationships to Arrowhead Marsh
- 25% Ecosystems of marsh, including plants, tidal cycle, birds and their habitats
- 25% Ecological concepts such as food webs, food chains, ecosystems, bio-diversity, succession
- 15% Training in water quality testing
- 15% Elementary school curriculum ideas on concepts listed above

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Observation and Demonstration
3. Other: Lecture with slides
Field Observations

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
 NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
 SKILL DEMONSTRATION
 MULTIPLE CHOICE
 OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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Jessica Thomson Fiorillo	<i>San Leandro Creek 1853 - 1993</i>	Aquatic Habitat Institute, -	(1994). Rationale: -
Chris Richards	<i>Guide to East Bay Creeks</i>	Oakland Museum, -	(1995). Rationale: -
Curriculum guide developed by Golden Gate Audubon staff and instructors 1999.			

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed.

Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000358634
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit []	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 049

3. COURSE TITLE:

BIOL 049

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP NO.**

5. UNITS: **HRS/WK LEC:** 0 Total: **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

8. COURSE/CATALOG DESCRIPTION

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes No If yes, how many modules:
 - b. Open entry/open exit: Yes No
 - c. Grading Policy: Both Letter Grade or Pass/No Pass Pass/No Pass Letter Grade Only
 - d. Eligible for credit by Exam: Yes No
 - e. Repeatable according to state guidelines: Yes No If yes, number of allowable repeats:
 - f. Required for degree/certificate (specify):
 - g. Meets GE/Transfer requirements (specify):
 - h. C-ID Number:
- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes No

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
- Are nonprint materials adequate? Yes No
- Are electronic/online resources available? Yes No
- Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000346163
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit []	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 080

3. COURSE TITLE:

BIOL 080

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP NO.**

5. UNITS: **HRS/WK LEC:** 0 Total: **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

8. COURSE/CATALOG DESCRIPTION

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- [] Primarily college level
- [] NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- [] ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
- Are nonprint materials adequate? Yes No
- Are electronic/online resources available? Yes No
- Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000364162
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: BIOL

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

BIOL 248AA

3. COURSE TITLE:

Natural History of Alameda National Wildlife Refuge

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP 0401.00 NO.**

5. UNITS: 0.5 **HRS/WK LEC:** 9 Total: 157.5 **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Requests by people for information on soon to be Alameda National Wildlife Refuge. Need to inform public about new refuge.

8. COURSE/CATALOG DESCRIPTION

Analysis of the natural history of Alameda National Wildlife Refuge. Review of Birds, Mammals and their food chains.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. analyze natural history of organisms found at refuge.
2. critically evaluate complexity of relationships of organisms found at refuge.
3. Examine organisms found at refuge.
4. know what a national wildlife refuge is.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

5% What a National Wildlife Refuge is.

5% Brief history of Alameda Natural wildlife refuge and future of refuge.

40% Natural history and identification of organisms at the refuge including:

Birds Least and Caspian Terns
 California and Western Gulls
 Northern Harrier
 Geese and Ducks
 Herons/Egrets
 Shorebirds
 Passerines
 Mammals Harbor Seal, Gray Fox, Sea Lions
 Planleton
 Fish
 Insects
 Plants

10% Food Chains/Food Webs of the refuge

40% Visit to refuge with continuation of lectures on topics above with organisms and refuge in view.

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Observation and Demonstration
3. Field Trips
4. Other: Slides
Hands on with some specimens

13. ASSIGNMENTS: 18 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: No outside assignments to be turned in to instructor, but various reading assignments will be given.

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
 NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
 SKILL DEMONSTRATION
 MULTIPLE CHOICE
 OTHER (Describe)
Discussions

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed.

Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

C. College Catalog pg 102-103

CHEMISTRY (CHEM)

Why Study Chemistry? Chemistry addresses the fundamental nature of substances and the changes that substances undergo. Students learn problem-solving skills rooted in the scientific world view. Specifically, you will learn about the chemical aspects of everyday life enabling you to understand the chemical foundations of the environment, energy, disease (causes and prevention), and the chemical basis of nutrition. The study of chemistry helps you understand the fundamentals controlling the interactions of elements and molecules which form the basis for our world and the universe. Knowledge of the discipline enables you to practice the protocols and techniques for working safely with chemicals. Modern civilization is based on chemistry and its effects upon the environment and ourselves. Some of the consequences are considered better than others and studying chemistry allows us to search for alternatives that may be practical or feasible.

What can you do with Chemistry? Some people are motivated primarily by curiosity about nature and/or about how things work. Questions that might be answered in studying chemistry include: the chemical composition of rocks from this or other planets, the chemical composition of the atmosphere, or the chemical reactions behind technologies such as rocket propulsion and automobile airbag deployment. Chemistry is essential in the practice of medicine in allowing us to understand the chemistry underlying biology, pharmacology, and human physiology.

The COA chemistry program is designed to provide you with a solid grasp of the basics to achieve your long-term goals. **Careers in chemistry include:** analytical chemist, biotechnologist, biochemist, chemical engineer, dietitian, environmental chemist, food and drug inspector, forensic chemist, geochemist, health professional, perfumer, pharmacist, professor, and many others.

CHEM 1A

General Chemistry

5 units, 3 hours lecture, 3 hours lecture-demonstration, 3 hours laboratory (GR)

Prerequisite: Math 203 or 211D

Recommended preparation: Chem 30A or 50

Acceptable for credit: CSU, UC

General principles of chemistry: Measurements, atomic theory, chemical nomenclature, chemical composition, stoichiometry, reactions in aqueous solution, thermochemistry, electron configurations, periodic properties, chemical bonding, gases, liquids, solids, and solutions. 1905.00

AA/AS area 1; CSU area B1, B3; IGETC area 5A/5C

CHEM 1B

General Chemistry

5 units, 3 hours lecture, 3 hours lecture-demonstration, 3 hours laboratory (GR)

Prerequisite: Chem 1A

Acceptable for credit: CSU, UC

General principles of chemistry: Kinetics, equilibrium, acid-base equilibria, buffers, solubility equilibria, entropy and free energy, electro-chemistry, nuclear chemistry, coordination chemistry, and an introduction to organic chemistry. 1905.00

AA/AS area 1; CSU area B1, B3; IGETC area 5A/5C

CHEM 30A

Introductory General Chemistry

4 units, 3 hours lecture, 3 hours laboratory (GR)

Prerequisite: Math 201 or 208 or 210D

Acceptable for credit: CSU, UC

Fundamental principles of general chemistry: Metric measurements, matter and energy, atomic structure, chemical nomenclature, chemical bonding, chemical reactions, stoichiometry, gas laws, nuclear chemistry, properties of liquids, solids, solutions, acids and bases. 1905.00

AA/AS area 1; CSU area B1, B3; IGETC area 5A/5C

CHEM 30B

Introductory Organic and Biochemistry

4 units, 3 hours lecture, 3 hours laboratory (GR)

Prerequisite: Chem 30A

Acceptable for credit: CSU, UC

Introduction to basic organic chemistry and biochemistry: Hydrocarbons; organic functional groups, nomenclature, and reactions; polymers, carbohydrates, proteins, enzymes, lipids, nucleic acids, protein synthesis, and metabolic pathways. 1905.00

AA/AS area 1; CSU area B1, B3; IGETC area 5A/5C

CHEM 48AA-FZ

Selected Topics in Chemistry

.5-5 units, 0-5 hours lecture, 0-15 hours laboratory (GR or P/NP)

Acceptable for credit: CSU

See section on Selected Topics. 1905.00

CHEM 49

Independent Study in Chemistry

.5-5 units, .5-5 hours lecture (GR)

Acceptable for credit: CSU

See section on Independent Study. 1905.00

CHEM 50**Beginning Chemistry**

4 units, 3 hours lecture, 3 hours laboratory (GR)

Recommended preparation: Math 201 or 210D

This is a preparatory course for Chem 1A for students who have not had high school chemistry.

Acceptable for credit: CSU, UC

Principles of basic chemistry: Metric measurements, matter and energy, atomic structure, chemical nomenclature, chemical reactions, stoichiometry, chemical bonding, gas laws, properties of liquids, solids, solutions, acids and bases. 1905.00

AA/AS area 1; CSU area B1, B3; IGETC area 5A/5C

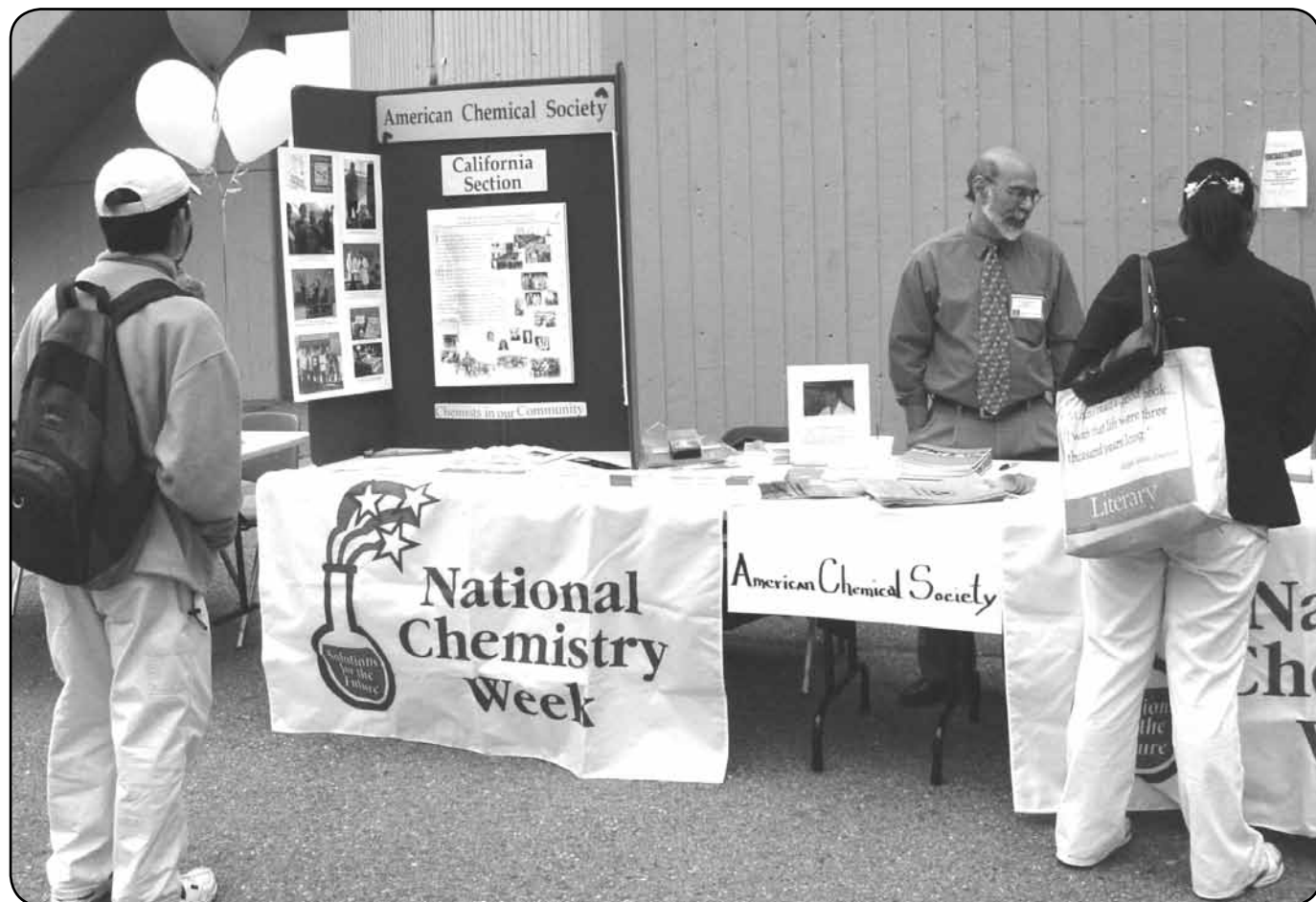
CHEM 248AA-FZ**Selected Topics in Chemistry**

.5-5 units, 0-5 hours lecture, 0-15 hours laboratory (GR or P/NP)

See section on Selected Topics. 1905.00

For all program degree and certificate updates, please visit:

<http://alameda.peralta.edu>



D. Chemistry Course Outlines of Record



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Course Search Results		
Actions	Department	Course Number Title
	College of Alameda	CHEM 001A General Chemistry *Active* peralta peralta Curric Comm App Date:
	College of Alameda	CHEM 001B General Chemistry *Active* peralta peralta Curric Comm App Date:
	College of Alameda	CHEM 001C CHEM 001C *Active* peralta peralta Curric Comm App Date:
	College of Alameda	CHEM 008A CHEM 008A *Active* peralta peralta Curric Comm App Date:
	College of Alameda	CHEM 030A Introductory General Chemistry *Active* Eric Peter Olds Curric Comm App Date:
	College of Alameda	CHEM 030B Introductory Organic and Biochemistry *Active* peralta peralta Curric Comm App Date:
	College of Alameda	CHEM 041 CHEM 041 *Active* peralta peralta Curric Comm App Date:
	College of Alameda	CHEM 50 Beginning Chemistry *Active* Shari Weiss Curric Comm App Date:

Legend	
	Course Outline (pdf)
	Course Outline (word)
	Course Impact Report
	Distance Education Addendum
	Course Compare Report
	SLO Report
	Course Attachments
	Fee-Based Class Proposal
	Edit
	Copy

Help	
Click on the WR icon to view a course outline. Click on the Copy icon to copy a course to edit. Click More for Guidelines on Course Revision.	

Governet

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000372475
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: CHEM

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

CHEM 001A

3. COURSE TITLE:

General Chemistry

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP NO.**

5. UNITS: 5 **HRS/WK LEC:** 6 Total: 105 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Required course for Chemistry and Biology majors. Prerequisite for Biology 1A and Chemistry 1B. Prerequisite for medical school, dental school, and pharmacy school and any career path in the sciences.

8. COURSE/CATALOG DESCRIPTION

General principles of chemistry: Measurements, atomic theory, chemical nomenclature, chemical composition, stoichiometry, reactions in aqueous solution, thermochemistry, electron configurations, periodic properties, chemical bonding, gases, liquids, solids, and solutions.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only [X]
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
CSU area B1, B3; IGETC area 5
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Solve a wide variety of numerical problems involving all of the topics listed in the course content section.
2. Calculate numerical answers and round the results to the appropriate number of significant figures.
3. Compare and contrast the differences between the states and types of matter, at both macroscopic and molecular levels.
4. Apply rules of nomenclature to name different types of compounds and write their formulas.
5. Balance chemical equations and calculate theoretical yields of products obtained in chemical reactions.
6. Predict products of and write equations for double-displacement reactions.
7. Give molecular level explanations of the gas laws.
8. Determine the electronic structure of atoms and predict or explain their periodic properties.
9. Draw Lewis structures of molecules and use to predict three-dimensional shapes and polarities of molecules.
10. Discuss types of intermolecular forces present in various substances, and evaluate relative strengths of these forces.
11. Predict relative solubilities of various compounds. Estimate the values of colligative properties of solutions.
12. Accurately measure quantities in the laboratory. Work safely and efficiently in the laboratory.
13. Organize data and calculations clearly in laboratory reports. Analyze the results of laboratory experiments.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT: List Percents

1. Matter and Measurement: 8%
Classifications and properties of matter, units of measurement, uncertainty and significant figures, problem solving and dimensional analysis.
2. Atoms, Molecules, and Ions: 8%
Atomic theory of matter, discovery of atomic structure, atomic weights, introduction to the periodic table, ionic and Molecular compounds, nomenclature.
3. Stoichiometry: Calculations with Chemical Formulas and Equations 9%
Balancing chemical equations, percent composition of compounds, mole concept and molar mass, finding empirical and molecular formulas, stoichiometry calculations including limiting reactants and theoretical yields.
4. Aqueous Reactions and Solution Stoichiometry 9%
Precipitation reactions, acid-base reactions, redox reactions, oxidation numbers, molarity and dilutions, solution stoichiometry and titrations.
5. Gases 9%
Empirical gas laws, ideal gas law, gas mixtures and partial pressures, kinetic-Molecular theory, meaning of temperature, diffusion and effusion, real gases and the Van der Waals equation.
6. Thermochemistry 9%
First law of thermodynamics, enthalpy, calorimetry, Hess's law, enthalpies of formation.
7. Electronic Structure of Atoms 8%
Wave and particle natures of light, energy quantization and photons, line spectra, Bohr model, wave and particle nature of matter (in particular of electrons), atomic orbitals, electron configurations.
8. Periodic Properties of the Elements 8%
Connection between electronic structure and the periodic table, Periodic properties and trends (size, ionization energy, electron affinity), Concept of effective nuclear charge.
9. Basic Concepts of Chemical Bonding 8%
Ionic and covalent bonding, electronegativity and bond polarity, Lewis structures, exceptions to the octet rule, bond energies.
10. Molecular Geometry and Bonding Theories 8%
VSEPR model for central atom geometry and molecular shapes, polarity of molecules, valence bond theory, hybrid orbitals, multiple bonds, molecular orbital theory for diatomic molecules.
11. Intermolecular Forces and Properties of Liquids, and Solids: 8%
Phase changes. vapor pressure, phase diagrams, types of solids.
12. Properties of Solutions 8%
Concentration, solubility, colligative properties.

11B.

LAB CONTENT:

LAB CONTENT: List Percents

Measurements, uncertainty, density, and graphing data
Using physical properties to identify and separate substances
Empirical formulas
Stoichiometry
Gravimetric analysis
Double replacement reactions
Redox reactions
Gas laws
Calorimetry: heat of reaction, heat of solution, heat of fusion

Emission spectra
Molecular models
UV/Visible spectrophotometry
Solution concentration
Acid-base titration 15-20 experiments per semester are weighted equally.

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Observation and Demonstration
3. Discussion
4. Other: guided problem solving
 - written feedback on homework, tests, and exams
 - supervised laboratory experiments to be carried out by the students
 - written feedback on laboratory reports
 - molecule visualization with models and computer software
 - internet content and tutorials

13. ASSIGNMENTS: 13.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: • Homework assignments from the textbook involving calculations and explanations • Laboratory reports, including data, observations, calculations, conclusions, and analysis of results • Quizzes, exams, and final exam (Exams will require students to show their work and problem-solving methods.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
 NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
 SKILL DEMONSTRATION
 MULTIPLE CHOICE
 OTHER (Describe)

Effective communication by way of laboratory reports and class participation.

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Brown, Lemay & Bursten	<i>Chemistry the Central Science</i> (10/e).	Pearson (Prentice Hall), -	(2006).
Oxtoby, Gillis & Nachtrieb	<i>Principles of Modern Chemistry</i> (4/e).	Saunders, -	(1999). Rationale: -
Jones & Atkins	<i>Chemistry – Molecules Matter & Change</i> (4/e).	Freeman, -	(1997). Rationale: -
Atkins & Jones	<i>Chemical Principles – The Quest for Insight</i>	Freeman, -	(1999). Rationale: -
Mahan & Myers	<i>University Chemistry</i> (4/e).	Benjamin Cummings, -	(1987). Rationale: -
Various Laney Instructors	<i>Laney Chem 1A Lab Manual</i>	Laney College or College of Alameda, -	(2005).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes [] No []
 Are nonprint materials adequate? Yes [] No []
 Are electronic/online resources available? Yes [] No []
 Are services adequate? Yes [] No []

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

Computer labs have been made available for which the computers have been set up with molecular viewing software. Various websites also offer virtual chemistry texts.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
 B Advance Occupational
 C Occupational
 D Possible Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- MATH 203: Intermediate Algebra
Subject course and pre/corequisite is: Sequential
Entry Skills: 1) Perform basic arithmetic; 2) Work with radicals and exponents; 3) Solve word problems; 4) Know how to graph; 5) Understand number systems; 6) Factor and solve quadratic equations; 7) Work with functions, linear equations, and inequalities; 8) Rearrange and solve algebraic equations 9) Understand and be able to use logarithms

Recommended Preparation:

- CHEM 030A: Introductory General Chemistry
Entry Skills: 1. Making and communicating measurements; 2. Atomic theory; 3. Periodic table of the elements: elemental symbols, important families, patterns, and how to use; 4. Nomenclature and formulas of elements and compounds; 5. Chemical reactions: what they are and basic types of reactions; 6. The meaning of and how to balance chemical reaction equations, the mole concept; 7. Use of balanced chemical equations to solve stoichiometry problems (i.e. calculate theoretical yields); 8. Basic atomic-electronic structure and how to determine electron configurations; 9. Chemical bonding, Lewis structures, and using VSEPR theory to predict molecular geometries; 10. Concepts of energy, temperature, and states of matter; 11. Properties of gases; 12. Properties of solutions, meaning and units of concentration; 13. Acids and bases, pH;
or
- CHEM 50
Subject course and pre/corequisite is:
Entry Skills: 1. Making and communicating measurements; 2. Atomic theory; 3. Periodic table of the elements: elemental symbols, important families, patterns, and how to use; 4. Nomenclature and formulas of elements and compounds; 5. Chemical reactions: what they are and basic types of reactions; 6. The meaning of and how to balance chemical reaction equations, the mole concept; 7. Use of balanced chemical equations to solve stoichiometry problems (i.e. calculate theoretical yields); 8. Basic atomic-electronic structure and how to determine electron configurations; 9. Chemical bonding, Lewis structures, and using VSEPR theory to predict molecular geometries; 10. Concepts of energy, temperature, and states of matter; 11. Properties of gases; 12. Properties of solutions, meaning and units of concentration; 13. Acids and bases, pH;

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000349820
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: CHEM

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

CHEM 001B

3. COURSE TITLE:

General Chemistry

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP NO.**

5. UNITS: 5 **HRS/WK LEC:** 6 Total: 105 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Required course for Chemistry and Biology majors. Prerequisite for Organic Chemistry and Biochemistry Prerequisite for medical school, dental school, and pharmacy school and any career path in the sciences.

8. COURSE/CATALOG DESCRIPTION

General principles of chemistry: Kinetics, equilibrium, acid-base equilibria, buffers, solubility equilibria, entropy and free energy, electrochemistry, nuclear chemistry, coordination chemistry, and an introduction to organic chemistry.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only [X]
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
CSU area B1, B3; IGETC area 5
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Solve a wide variety of numerical problems and explain various chemical phenomena at the molecular level.
2. Use Le Chatlier's Principle to predict how a system at equilibrium will respond to a perturbation.
3. Perform calculations with equilibrium constants to predict equilibrium concentrations and extents of reaction.
4. Explain how a buffer works and calculate the pH of buffer solutions. Make a buffer of predetermined pH.
5. Use the 2nd Law and Gibbs energy to predict spontaneity of reactions under standard and nonstandard conditions.
6. Diagram an electrochemical cell and show the direction electron flow and ion flow.
7. Determine the voltage of an electrochemical cell under standard and nonstandard conditions.
8. Discuss factors that affect reaction rates and use rate laws to predict concentration changes with time.
9. Write nuclear reactions for various nuclear decay processes and calculate energy released for these.
10. Predict the type of nuclear decay a particular isotope will undergo.
11. Rationalize the color and magnetic properties of coordination compounds using crystal-field theory.
12. Construct diagrams of the molecular structure of various organic compounds.
13. Work safely and efficiently in the laboratory. Accurately measure quantities in the laboratory.
14. Organize data and calculations clearly in laboratory reports. Analyze the results of laboratory experiments.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT: List Percents

- Chemical Equilibrium: Understand equilibrium constants and how to use them. 10% Understand Le Chatelier's Principle and how to use it.
- Aqueous Chemical Equilibria: Acid/base equilibria, pH, buffers, titration curves, 30% pH indicators, solubility products.
- Thermodynamics: entropy, 2nd Law, Gibbs Free Energy, spontaneous processes, 10% Gibbs energy and the equilibrium constant, temperature dependence of the equilibrium constant.
- Electrochemistry: Recognizing and balancing redox reactions, electrochemical cells, 10% cell potentials, Gibbs energy and the Nernst equation, batteries, corrosion, electrolysis
- Reaction Rates (also called kinetics): empirical differential and integrated rate laws, 10% half life for 1st order rate laws, temperature dependence of reaction rate (Arrhenius behavior), activation energy, frequency factor, catalysis, reaction mechanisms and rate laws.
- Nuclear Chemistry: radioactive decay follows a first order rate law, types of radioactive decay, 10% transmutations, balanced nuclear equations, nuclear stability and the protons/neutrons ratio, calculating energy release during a nuclear reaction, fission, fusion, radiation and health, estimating radiation doses.
- Coordination Chemistry of the Transition Metals: Complexes, nomenclature, isomerism, 10% crystal field theory, color and magnetism, spectrochemical series.
- Organic Chemistry: Hydrocarbons, functional groups, nomenclature, structure and isomerism, 10% chirality, amino acids.

11B.

LAB CONTENT:

LAB CONTENT: List Percents

Le Chatelier's principle
Determination of an equilibrium constant
Acid-base indicators
Relative strengths of acids
Titration curve of a weak acid and determination of the acid's pKa.
Preparation of buffer solutions of predetermined pH.
Thermodynamics of Borax solubility
Electrochemistry
Applications of the Nernst equation
Kinetics: Determination of a rate Law and a rate Constant.
Kinetics: Temperature dependence of a rate constant.
Relative stabilities of precipitates and complex ions
Qualitative analysis
Molecular modeling: structures of organic molecules 10-15 experiments per semester are weighted equally.

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Observation and Demonstration
3. Discussion
4. Other: guided problem solving
 - written feedback on homework, tests, and exams
 - supervised laboratory experiments to be carried out by the students
 - written feedback on laboratory reports
 - molecule visualization with models and computer software
 - internet content and tutorials

13. ASSIGNMENTS: 13.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: • Homework assignments involving calculations and explanations. • Laboratory reports, including data, observations, calculations, conclusions, and analysis of results • Quizzes, exams, and final exam (Exams will require students to show their work and problem solving methods.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
 NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
 SKILL DEMONSTRATION
 MULTIPLE CHOICE
 OTHER (Describe)

Effective communication by way of laboratory reports and class participation.

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Brown, Lemay & Bursten	<i>Chemistry the Central Science</i> (10/e).	Pearson (Prentice Hall), -	(2006).
Oxtoby, Gillis & Nachtrieb	<i>Pocket Guide to Mobile Connectivity</i> (4/e).	Saunders, -	(1999). Rationale: -
Jones & Atkins	<i>Chemistry – Molecules Matter & Change</i> (4/e).	Freeman, -	(1997). Rationale: -
Atkins & Jones	<i>Chemical Principles – The Quest for Insight</i>	Freeman, -	(1999). Rationale: -
Mahan & Myers	<i>University Chemistry</i> (4/e).	Benjamin Cummings, -	(1987). Rationale: -
various Laney Instructors	<i>Laney Chem 1b Lab Manual</i>	College or College of Alameda, -	(2005).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes [] No []

Are nonprint materials adequate? Yes [] No []

Are electronic/online resources available? Yes [] No []

Are services adequate? Yes [] No []

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- CHEM 001A: General Chemistry
Subject course and pre/corequisite is: Sequential
Entry Skills: Students should have knowledge of subjects and ability to use principles covered in Chem 1A including: • making measurements of properties of substances and reporting those measurements clearly with correct uncertainty conventions (significant figures). • Dalton's atomic

theory: why and how chemical equations are balanced. • stoichiometry: using mole concept, molar mass, and balanced equations to calculate theoretical yields. • chemical nomenclature for molecular and ionic substances. • empirical gas laws, ideal gas law, and how to use these. • electronic structure of atoms: how to determine ground state electron configurations and what they mean. • the connection between electronic structure and the periodic table. • chemical bonding: covalent and ionic bonds, Lewis structures, VSEPR to predict central atom geometry. • bond energies and their connection with thermochemistry. • 1st Law of Thermodynamics, enthalpy, calorimetry, Hess's Law, standard enthalpies of formation. • Understanding of intermolecular forces and their importance in liquids and molecular solids. • solutions, concentration (molarity, molality, etc.), solubility, and colligative properties. • phase diagrams and how to use them.

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000364792
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: CHEM

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit []	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

CHEM 001C

3. COURSE TITLE:

CHEM 001C

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP NO.**

5. UNITS: **HRS/WK LEC:** 0 Total: **HRS/WK LAB:** 0 Total: **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

8. COURSE/CATALOG DESCRIPTION

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
 - b. Open entry/open exit: Yes [] No [X]
 - c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only []
 - d. Eligible for credit by Exam: Yes [] No [X]
 - e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
 - f. Required for degree/certificate (specify):
 - g. Meets GE/Transfer requirements (specify):
 - h. C-ID Number:
- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- [] Primarily college level
- [] NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- [] ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
- Are nonprint materials adequate? Yes No
- Are electronic/online resources available? Yes No
- Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000369811
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: CHEM

1. REQUESTED CREDIT CLASSIFICATION:

Community Degree Credit Non-Degree Credit Non-Credit Stand Alone
Services [] [] [] Course
(Fee-based) []
[]
Course Is A Basic Skill Course
[]

2. DEPT/COURSE NO:

CHEM 008A

3. COURSE TITLE:

CHEM 008A

4. COURSE: COA COA COA New COA COA - Course COA Course **TOP**
New Fee Course Course[X] Course Reactivation[] Reactivation[] **NO.**
Based Changes
Course[] only in
Non-Catalog in
Info[] Catalog
Info[]

5. UNITS: **HRS/WK LEC:** 0 Total: **HRS/WK LAB:** 0 **HRS/WK TBA:** 0 Total:
Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

8. COURSE/CATALOG DESCRIPTION

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [] No [X]

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

13. ASSIGNMENTS: 0 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

ASSIGNMENTS ARE: (Check one. See definition of college level):

- [] Primarily college level
- [] NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- [] ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
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*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
- Are nonprint materials adequate? Yes No
- Are electronic/online resources available? Yes No
- Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: Eric Peter Olds **STATE CONTROL NUMBER:** CCC000360638
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: CHEM

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

CHEM 030A

3. COURSE TITLE:

Introductory General Chemistry

4. COURSE: COA New Fee Based Course []
COA Course Changes only in Non-Catalog Info []
COA New Course []
COA Course Changes in Catalog Info [X]
COA - Course Reactivation []
COA Course Reactivation []
TOP NO.

5. UNITS: 4 **HRS/WK LEC:** 3 Total: 52.5 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Chem 30A serves as a basic introduction to general chemistry for students whose only preparation is elementary algebra. The course is well suited for students preparing to enter nursing and allied health fields. The course satisfies the Associate Degree General Education requirement for Natural Science major at the Associate in Arts and Associate in Science level. Acceptable for credit: CSU.

8. COURSE/CATALOG DESCRIPTION

Fundamental principles of inorganic chemistry: Metric measurements, matter and energy, atomic structure, chemical nomenclature, chemical bonding, chemical reactions, stoichiometry, gas laws, nuclear chemistry, properties of liquids, solids, solutions, acids and bases.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only [X]
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
CSU area B1, B3; IGETC area 5
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Making and communicating measurements;
2. Atomic theory;
3. Periodic table of the elements: elemental symbols, important families, patterns, and how to use;
4. Nomenclature and formulas of elements and compounds;
5. Chemical reactions: what they are and basic types of reactions;
6. The meaning of and how to balance chemical reaction equations, the mole concept;
7. Use of balanced chemical equations to solve stoichiometry problems (i.e. calculate theoretical yields);
8. Basic atomic-electronic structure and how to determine electron configurations;
9. Chemical bonding, Lewis structures, and using VSEPR theory to predict molecular geometries;
10. Concepts of energy, temperature, and states of matter;
11. Properties of gases;
12. Properties of solutions, meaning and units of concentration;
13. Acids and bases, pH;

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT: List Percents

- 1) Measurements, calculations, matter, energy, and temperature; 10%
- 2) Elements, compounds, and Dalton's atomic theory; 10%
- 3) Basic atomic structure, protons, neutrons, electrons, ions; 10%
- 4) The mole concept, the atomic mass scale, and the periodic table of elements; 10%

- 5) Nomenclature of chemical compounds, meaning of chemical formulas; 10%
- 6) Chemical reaction types, balancing equations, and stoichiometry problems; 10%
- 7) Modern atomic-electronic structure, quantum chemistry, connection with periodic table; 5%
- 8) Chemical bonds, Lewis structures, VSEPR theory for molecular geometries; 10%
- 9) Gases; 5%
- 10) Intermolecular forces, solids, and liquids; 5%
- 11) Solutions: Concentration units, properties of solutions; 10%
- 12) Equilibrium: including acid/base equilibrium and buffers. 5%

11B.

LAB CONTENT:

LAB CONTENT - Experiment:

- 1) Metric Measurements and Density; 15) Line Emission Spectra and Flame Tests;
- 2) Using Physical Properties to identify an unknown liquid; 16) Periodic Properties of Some Elements;
- 3) Paper Chromatography; 17) Charles' Law;
- 4) Graphing; 18) Determination of %Oxygen in Air;
- 5) Physical and Chemical Changes; 19) Cooling and Warming Curves for a Pure Substance;
- 6) Heat of Combustion and Heat of a Phase Change; 20) Connection between Boiling Point and Atmospheric Pressure;
- 7) Specific Heat of a Metal; 21) Solubility and Molecular Structure;
- 8) Chemical Changes; 22) Concentrations of Solutions;
- 9) Double Replacement Reactions; 23) Concentration of Sodium Chloride;
- 10) Single Replacement Reactions; 24) Finding pH of solutions;
- 11) Empirical Formula of Magnesium Oxide; 25) Titration of acetic acid in vinegar;
- 12) Water of Hydration; 26) Molecular Model and VSEPR lab.
- 13) Thermal Decomposition of Sodium Bicarbonate;

20-25 labs are completed each semester and weighted equally. So for example if 20 labs are completed, each lab is 5% of the lab grade.

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Observation and Demonstration
3. Other: Laboratory experiments
 - Problem solving sessions
 - Written feedback on homework, tests, and exams
 - Molecule visualization with models and computer software
 - Internet content and tutorials

13. ASSIGNMENTS: 7.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1) Questions and problems from text and handouts; 2) Laboratory experiments and lab reports (includes analysis and discussion of results); 3) Tests and final examination.

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

COMPUTATION SKILLS

NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)

SKILL DEMONSTRATION

MULTIPLE CHOICE

OTHER (Describe)

Effective communication by way of laboratory reports.

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Steven S. Zumdahl	<i>Introductory Chemistry (7/e).</i>	Houghton Mifflin, -	(2010). Rationale: -
Various Laney Instructors	<i>Laney Chem 30A Laboratory Manual</i>	Laney College and/or College of Alameda, -	(2006).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes [] No []

Are nonprint materials adequate? Yes [] No []

Are electronic/online resources available? Yes [] No []

Are services adequate? Yes [] No []

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- MATH 201: Elementary Algebra
Subject course and pre/corequisite is: Sequential
Entry Skills: 1. Satisfactory comprehension in the following areas: a. Solving linear equations with one variable and linear systems of two variables: application to solving word problems dealing with money, interest and principal, distance, rate and time, chemistry, perimeter, area and volume, consecutive integers... b. Simplifying polynomials including the four basic operations and factoring. c. Simplifying algebraic fractions, exponential and radical expressions; d. Graphing and interpreting linear and quadratic equations; e. Solving inequalities; application problems; f. Solving quadratic equations in one unknown. 2. A satisfactory understanding of the concepts and the foundation for the skills listed above, in order to continue the work in mathematics and to apply these principles to related fields such as chemistry; 3. Logical thinking: assessing given information, exploring alternative approaches, arriving at conclusions based on evidence, and applying applicable concepts; 4. Satisfactory ability to analyze a mathematical situation of any type listed above, organize a method of solution, and perform the solution in a clear written or oral dissertation.

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000375532
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: CHEM

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

CHEM 030B

3. COURSE TITLE:

Introductory Organic and Biochemistry

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP NO.**

5. UNITS: 4 **HRS/WK LEC:** 3 Total: 52.5 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Chemistry 30B serves as a basic introduction to organic and biochemistry for students whose only chemistry preparation at the college level is Chemistry 30A. The course is well suited for students preparing to enter nursing and allied health fields. Chemistry 30B satisfies the Associate Degree General Education requirement for the Natural Science major at the Associate in Arts and Associate in Science level. Acceptable for credit: CSU.

8. COURSE/CATALOG DESCRIPTION

Introduction to basic organic chemistry and biochemistry; Hydrocarbons; organic functional groups, nomenclature, and reactions; polymers, carbohydrates, proteins, enzymes, lipids, nucleic acids, protein synthesis, and metabolic pathways.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only [X]
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
CSU area B1, B3; IGETC area 5
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Students completing Chem 30B will have knowledge of and competence in:
 1. Nomenclature and structure of various classes of organic compounds and functional groups;
 2. Measurement and observation of various physical properties of organic compounds;
 3. Chemical reactions characteristic of various classes of organic compounds;
 4. Nomenclature and structure of bio-molecules: lipids, carbohydrates, proteins (including enzymes), vitamins, nucleic acids, etc.:
 5. Applying the above to describing various metabolic and other chemical pathways important to life: digestion, energy production and storage, oxygen and CO₂ transport, the genetic code, protein production, etc.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT

- (1) Saturated hydrocarbons. (2) Unsaturated hydrocarbons. 10%
- (3) Alcohols, phenols, ethers and their sulfur analogues. (4) Aldehydes and ketones. 10%
- (5) Carboxylic acids, esters, and other acid derivatives; acids & bases, pH scale. 10%
- (6) Amines & amides. 5%
- (7) Stereoisomerism. 5%
- (8) Carbohydrates. (9) Lipids. (10) Proteins. 15%
- (11) Nucleic acids. 7%
- (12) Metabolism and enzymes, an overview. 10%
- (13) Carbohydrate metabolism. 10%

- (14) Fatty acid metabolism. 6%
(15) Amino acid metabolism. 6%
(16) Hormones and the control of metabolic interrelations. 6%

11B.

LAB CONTENT:

Laboratory Content (Experiments from Laney Lab Manual):

- (1) Lab safety. (2) Properties of organic compounds.
- (3) Molecular models. (4) Physical properties of organic compounds.
- (5) Reactions of hydrocarbons.
- (6) Alcohols and phenols.
- (7) Aldehydes, ketones, and carboxylic Acids.
- (8) Aspirin Synthesis. (9) Amino acids & proteins.
- (10) Enzymes. (11) Carbohydrates.
- (12) Lipids. (13) Saponification (making soap).
- (14) Preparation of hand cream.
- (15) Vitamins.

Approximately 15 laboratory experiments are completed each semester and weighted equally.

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Observation and Demonstration
3. Other: Demonstrations
 - Laboratory experiments
 - Problem solving sessions
 - Written feedback on homework, tests, and exams
 - Molecule visualization with models and computer software
 - Internet content and tutorials

13. ASSIGNMENTS: 7.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1) Questions and problems from the text and from handouts; 2) Laboratory experiments and reports (including analysis and discussion of laboratory results); 3) Tests and final examination.

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
 NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)

- SKILL DEMONSTRATION
 MULTIPLE CHOICE
 OTHER (Describe)
 Effective communication by way of laboratory reports.

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Ira Blei & George Odian	<i>General Organic and Biochemistry</i>	W. H. Freeman, -	(2005).
Cheli Fossum (Laney College)	<i>Laney Chem 30B Lab Manual</i>	Laney College or College of Alameda , -	(2005).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes [] No []
 Are nonprint materials adequate? Yes [] No []
 Are electronic/online resources available? Yes [] No []
 Are services adequate? Yes [] No []

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
 B Advance Occupational
 C Occupational
 D Possible Occupational
 E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- CHEM 030A: Introductory General Chemistry
Subject course and pre/corequisite is: Sequential
Entry Skills: 1. Making and communicating measurements; 2. Atomic theory; 3. Periodic table of the elements: elemental symbols, important families, patterns, and how to use; 4. Nomenclature and formulas of elements and compounds; 5. Chemical reactions: what they are and basic types; 6. The meaning of and how to balance chemical reaction equations, the mole concept; 7. Use of balanced chemical equations to solve stoichiometry problems (i.e. calculate theoretical yields); 8. Basic atomic-electronic structure and how to determine electron configurations; 9. Chemical bonding, Lewis structures, and using VSEPR theory to predict molecular geometries; 10. Concepts of energy, temperature, and states of matter; 11. Properties of gases; 12. Properties of solutions, understanding and using units of concentration; 13. Acids and bases, pH

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/07/2010
ORIGINATOR: Shari Weiss **STATE CONTROL NUMBER:** CCC000514054
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: CHEM

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit []	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

CHEM 50

3. COURSE TITLE:

Beginning Chemistry

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP** 1905.00 **NO.**

5. UNITS: 4 **HRS/WK LEC:** 3 Total: 52.5 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Recommended preparatory course for Chemistry 1A as opposed to Chem 30A which is intended primarily for allied health majors. Will increase Chem 1A retention (now typically about 50%) by preparing students with no high school chemistry. Satisfies Associate Degree General Education requirement for Natural Science. Satisfies requirement for Associate in Science Degree.

8. COURSE/CATALOG DESCRIPTION

This is a preparatory course for Chem 1A for students who have not had high school chemistry. Principles of basic chemistry: Metric measurements, matter and energy, atomic structure, chemical nomenclature, chemical reactions, stoichiometry, chemical bonding, gas laws, properties of liquids, solids, solutions, acids and bases. 1905.00

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only [X]
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Solve problems involving the use of conversion factors.
2. Calculate numerical answers and round the results to the appropriate number of significant figures.
3. Discuss the differences between the states and types of matter.
4. Discuss and diagram the structure of the atom and electron configurations.
5. Apply rules of nomenclature to name different types of compounds and write formulas.
6. Predict the products and write equations for double-displacement reactions.
7. Solve problems involving conversions between masses and moles.
8. Balance chemical equations and solve stoichiometry problems of various types.
9. Determine electron-dot structures and overall geometry of small molecules.
10. Explain and calculate properties of gases.
11. Discuss types of intermolecular forces present in various substances, and evaluate the relative strengths of those forces.
12. Compare and contrast the properties of acids and bases. Calculate the pH of various solutions.
13. Demonstrate safe and effective laboratory techniques and procedures.
14. Analyze the results of laboratory experiments.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

1. Measurements and Calculations 8%
 - a. The metric system
 - b. Unit conversions using dimensional analysis
 - c. Uncertainty in measurements
 - d. Significant Figures

- e. Density
- 2. Matter and Energy 8%
 - a. States of matter
 - b. Physical and chemical properties and changes
 - c. Elements and compounds
 - d. Mixtures and pure substances
 - e. Energy and energy changes
- 3. Elements, Atoms, and Ions 6%
 - a. Element symbols
 - b. Dalton's Atomic Theory
 - c. Atomic Structure
 - d. Isotopes
 - e. Organization of the Periodic Table
 - f. Ions
- 4. Nomenclature 8%
 - a. Names of polyatomic ions
 - b. Naming ionic compounds
 - c. Naming binary molecular compounds
 - d. Naming acids
- 5. Introduction to chemical reactions 4%
 - a. Evidence for chemical reactions
 - b. Writing and balancing chemical equations
- 6. Reactions in Aqueous Solutions 8%
 - a. Precipitation reactions
 - b. Acid-base reactions
 - c. Oxidation-reduction reactions
 - d. Predicting products of double-displacement reactions
 - e. Writing ionic equations for double-displacement reactions
 - f. Classifying reactions
- 7. Chemical Composition 6%
 - a. The mole, molar mass, conversions of masses to moles
 - b. Percent composition of compounds
 - c. Determination of empirical and molecular formulas
- 8. Chemical Quantities 8%
 - a. Stoichiometry calculations: mole to mole, mass to mass, and variations
 - b. Limiting reactant calculations
 - c. Percent yield
- 9. Modern Atomic Theory 8%
 - a. Electromagnetic radiation and energy
 - b. Bohr model and wave mechanical model of the atom
 - c. Electron configurations of atoms
 - d. Periodic properties
- 10. Chemical Bonding 8%
 - a. Ionic vs. covalent bonds
 - b. Electronegativity and bond polarity
 - c. Electron configurations of ions
 - d. Stable electron configurations
 - e. Lewis structures
 - f. Molecular geometry: VSEPR model
- 11. Gases 7%
 - a. Pressure
 - b. Boyle's, Charles's, and Avogadro's Laws
 - c. The ideal gas law
 - d. Law of partial pressures
 - e. Kinetic molecular theory of gases and consequences

- f. Gas stoichiometry
- 12. Liquids and Solids 7%
 - a. Energy requirements for changes of state
 - b. Intermolecular forces
 - c. Boiling point and vapor pressure
 - d. Types of solids
- 13. Solutions 7%
 - a. Solubility
 - b. Molarity and mass percent
 - c. Dilutions
 - d. Stoichiometry of reactions in solution
 - e. Titrations
- 14. Acids and Bases 7%
 - a. Definitions of acids and bases
 - b. Autoionization of water
 - c. pH
 - d. Buffers

11B.

LAB CONTENT:

Laboratory experiments that support the above topics, including quantitative and qualitative experiments and analysis of data:

- Metric measurements and density
- Physical properties
- Paper chromatography
- Separation of mixtures
- Molecular modeling
- Specific heat
- Chemical and physical changes
- Determination of empirical formulas
- Stoichiometry
- Double replacement and single replacement reactions
- Gas laws
- Line emission, flame tests
- Periodic properties
- Solubility and structure
- Concentration of solutions
- pH of solutions
- Titration

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Lab
3. Discussion
4. Other: guided problem solving, demonstrations

13. ASSIGNMENTS: 7.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1. Homework assignments from the textbook involving calculations and explanations 2. Laboratory calculations, observations, and conclusions 3. Quizzes and exams that require students to show their problem-solving methods 4. Comprehensive final exam

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
 NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
 SKILL DEMONSTRATION
 MULTIPLE CHOICE
 OTHER (Describe)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Zumdahl, Steven S.	<i>Basic Chemistry (6/e).</i>	Houghton Mifflin,	(2008).
Fossum et. al.	<i>Chemistry 50/30A Lab Manual</i>	Laney,	(2008).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes No
 Are nonprint materials adequate? Yes No
 Are electronic/online resources available? Yes No
 Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed.
 Librarian comments:

Needs more in the area of chemistry. Still outdated.

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

- C. Readings listed in A and B above are: (Check one. See definition of college level):
- [X] Primarily college level
 - [] NOT primarily college level

16. Designate Occupational Code (check ONE only):

- [] A Apprenticeship
- [] B Advance Occupational
- [] C Occupational
- [] D Possible Occupational
- [X] E Non-Occupational

17. Levels Below Transfer:

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- MATH 201: Elementary Algebra
Subject course and pre/corequisite is: Sequential
Entry Skills: Students should have: 1. Satisfactory comprehension in the following areas: a. Solving linear equations with one variable and linear systems of two variables: application to solving word problems dealing with money, interest and principal, distance, rate and time, chemistry, perimeter, area and volume, consecutive integers... b. Simplifying polynomials including the four basic operations and factoring. c. Simplifying algebraic fractions, exponential and radical expressions; d. Graphing and interpreting linear and quadratic equations; e. Solving inequalities; application problems; f. Solving quadratic equations in one unknown. 2. A satisfactory understanding of the concepts and the foundation for the skills listed above, in order to continue the work in mathematics and to apply these principles to related fields such as chemistry; 3. Logical thinking: assessing given information, exploring alternative approaches, arriving at conclusions based on evidence, and applying applicable concepts; 4. Satisfactory ability to analyze a mathematical situation of any type listed above, organize a method of solution, and perform the solution in a clear written or oral dissertation.
or
- HS algebra
Subject course and pre/corequisite is:

E. College Catalog pg 178-179

PHYSICS (PHYS)

The study of Physics is the study of the universe, beginning with the fundamental structures of nature such as energy and matter. Ideas in physics have led to great developments such as relativity, superconductivity, the semiconductor chip, lasers, and string theory.

Careers in physics include: basic and applied research, engineering, science education, and almost any field requiring you to think analytically about whole systems. It is also excellent preparation for higher educational pursuits in professional schools in medicine and patent law.

In the **Physics Department at College of Alameda**, conceptual understanding, problem-solving, and laboratory exercises are well integrated in the curriculum. You will spend time working with other students in class, discussing physics concepts and solving problems together.

PHYS 4A

General Physics with Calculus

5 units, 4 hours lecture, 3 hours laboratory (GR)

Prerequisite: Math 3A

Recommended preparation: Phys 10

Acceptable for credit: CSU, UC

Comprehensive study of major topics of physics: Motion, forces, gravity, energy, momentum, rotation, equilibrium, fluids, oscillations, waves, and sound. 1902.00

AA/AS area 1; CSU area B1, B3; IGETC area 5A/5C

C-ID PHYS 205

PHYS 4B

General Physics with Calculus

5 units, 4 hours lecture, 3 hours laboratory (GR)

Prerequisite: Phys 4A and Math 3B

Acceptable for credit: CSU, UC

Comprehensive study of major topics of physics: Thermodynamics, electric forces and fields, magnetic forces and fields, electricity, and AC and DC circuits. 1902.00

AA/AS area 1; CSU area B1, B3; IGETC area 5A/5C



PHYS 4C

General Physics with Calculus

5 units, 4 hours lecture, 3 hours laboratory (GR)

Prerequisite: Phys 4B and Math 3C

Acceptable for credit: CSU, UC

Comprehensive study of major topics of physics: Light, interference, relativity, quantum physics, atoms, molecules, and nuclei. 1902.00

AA/AS area 1; CSU area B1, B3; IGETC area 5A/5C

PHYS 10

Introduction to Physics

4 units, 4 hours lecture (GR or P/NP)

Recommended preparation: Math 201 or 210D, and Math 202

Not open for credit to students who have completed or are currently enrolled in Phys 2A-2B or 4A-4B-4C.

Acceptable for credit: CSU, UC

Elementary introduction to the field of physics: Mechanics, heat, electricity and magnetism, sound, optics, and modern physics. 1902.00

AA/AS area 1; CSU area B1; IGETC area 5A

PHYS 48AA-FZ

Selected Topics in Physics

.5-5 units, 0-5 hours lecture, 0-15 hours laboratory (GR or P/NP)

Acceptable for credit: CSU

See section on Selected Topics. 1902.00

PHYS 49

Independent Study in Physics

.5-5 units, .5-5 hours lecture (GR)

Acceptable for credit: CSU

See section on Independent Study. 1902.00

PHYS 248AA-FZ

Selected Topics in Physics

.5-5 units, 0-5 hours lecture, 0-15 hours laboratory (GR or P/NP)

See section on Selected Topics. 1902.00

F. Physics Course Outlines of Record



Welcome,
Colleges:
College of Alameda

Log Out

CurricUNET Home
 Search

Search

Course
Program
Users

Links

ASSIST
Bloom's Taxonomy
Peralta Home Page
Special Characters

Course Search Results	
Actions	Department Course Number Title
	College of Alameda PHYS 004A General Physics with Calculus *Active* Patricia Tsai Curric Comm App Date: 04/15/2013
	College of Alameda PHYS 004B General Physics with Calculus *Active* peralta peralta Curric Comm App Date:
	College of Alameda PHYS 004C General Physics with Calculus *Active* peralta peralta Curric Comm App Date:
	College of Alameda PHYS 010 Introduction to Physics *Active* Patricia Tsai Curric Comm App Date: 08/25/2014

Legend

- Course Outline (pdf)
- Course Outline (word)
- Course Impact Report
- Distance Education Addendum
- Course Compare Report
- SLO Report
- Course Attachments
- Fee-Based Class Proposal
- Edit
- Copy

Help

Click on the WR icon to view a course outline. Click on the Copy icon to copy a course to edit. Click More for Guidelines on Course Revision.

Governet

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: Patricia Tsai **STATE CONTROL NUMBER:** CCC000345944
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE: 04/15/2013
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: PHYS

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

PHYS 004A

3. COURSE TITLE:

General Physics with Calculus

4. COURSE: COA New Fee Based Course []
COA Course Changes only in Non-Catalog Info[X]
COA New Course []
COA Course Changes in Catalog Info []
COA - Course Reactivation []
COA Course Reactivation []
TOP NO.

5. UNITS: 5 **HRS/WK LEC:** 4 Total: 70 **HRS/WK LAB:** 3 Total: 52.5
HRS/WK TBA: 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Physics 4A is the first semester of a three-semester sequence that provides a comprehensive survey of the major topics of physics for students majoring in engineering or the physical sciences.

8. COURSE/CATALOG DESCRIPTION

Comprehensive study of major topics of physics: Motion, forces, gravity, energy, momentum, rotation, equilibrium, fluids, oscillations, waves, and sound.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only [X]
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
AA/AS area 1, CSU areas B1, B3, B4, IGETC area 5
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Analyze physical situations involving motion, forces, gravity, energy, momentum, rotation, equilibrium, fluids, oscillations, waves, and sound.
2. Solve computational problems in these areas using algebra, trigonometry, and calculus.
3. Work as a team member in discussing examples and applications of physics in these areas, and in performing laboratory experiments.
4. Experiment with and measure physical phenomena in the areas studied.
5. Write clear and concise laboratory reports analyzing and discussing the results of physics experiments conducted in the laboratory.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

1. Translation:

- Kinematics in One Dimension.
- Newton's Laws in One Dimension.
- Scalars & Vectors.
- Kinematics in 2 dimensions: Projectile Motion.
- Newton's Laws in Two Dimensions.
- Friction and Resistive Forces.
- Circular Motion and Forces.
- Newton's Law of Universal Gravitation.

2. Conservation Laws

- Energy, Work, and Power
- Linear Momentum and Collisions

3. Rotation

- Rotational Kinematics
- Rotational Dynamics
- Static Equilibrium
- Rotational Energy and Angular Momentum
- Elasticity of Materials

4. Additional topics

- Fluids
- Simple Harmonic Oscillations
- Mechanical Waves & Sound

11B.

LAB CONTENT:

I) In laboratory sessions, students will:

- plan their measurements, predict results, and perform measurements.
- analyze data, using correct units and significant figures.

II) Through discussion and written reports, students relate the experimental results to the physical concepts discussed in the lecture.

III) Experiments include:

- Graph Matching
- Velocity and Acceleration
- Dynamics
- Forces in Equilibrium
- Conservation of Momentum
- Ballistic Pendulum
- Introduction to Rotation
- Static Equilibrium
- Oscillations
- Fluids
- Waves

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Lab
3. Discussion
4. Other: 1) Discussions explore concepts of physics and mathematical representations of physical quantities.
2) Examples demonstrate setting up and solving computational problems.
3) In class applications allow students to solve problems in class, and discuss related concepts.
4) Classroom demonstrations physical principles.
5) Laboratory exercises allow for hands on learning.

13. ASSIGNMENTS: 9.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1) Knowledge is enhanced through assigned readings. 2) Critical thinking and knowledge in use is facilitated through a) written responses to questions requiring conceptual reasoning. b) written responses to questions requiring analytical reasoning. 3) Proficiency with presentation of results is facilitated through written lab reports.

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

Knowledge mastery and application is assessed through the:

- 1) Evaluation of written explanations of topics.
- 2) Evaluation of solutions to analytical problems.
- 3) Evaluation of written laboratory reports.

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Giancoli, D.	<i>Physics for Scientists and Engineers</i> (4/e).	Pearson Prentice Hall, New Jersey	(2009).
Tsai	<i>Laboratory Experiments for Physics 4A</i>	-, -	(2013).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

C Occupational

D Possible Occupational

E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- MATH 003A: Calculus I

Subject course and pre/corequisite is: Sequential

Entry Skills: • Determine the existence of limits of algebraic and transcendental functions, including polynomial, trigonometric and rational functions; • Determine the point-wise continuity of algebraic and transcendental functions; • Compute the derivative of algebraic functions, including polynomial, transcendental, rational, and composites of any of the mentioned functions, including the derivatives of implicit equations; • Solve word problems involving the derivative, including maximum/minimum, and related word problems; • Compute higher order derivatives; • Graph algebraic equations in two variables, using first and second derivatives to specify points and behavior patterns; • Compute the anti-derivative of certain functions; • Apply elementary

techniques such as substitution to evaluate definite integrals. • Think logically • Demonstrate a satisfactory ability to analyze a mathematical situation of any type listed above, organize a method of solution, and perform the solution in a clear written or oral dissertation.

Recommended Preparation:

- PHYS 010: Introduction to Physics

Subject course and pre/corequisite is: Sequential

Entry Skills: • Demonstrate familiarity with general concepts of physics such as motion, force, energy, momentum, gravity, waves, sound; • Understand methods of using algebra and trigonometry in setting up and solving situational problems

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000361082
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: PHYS

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

PHYS 004B

3. COURSE TITLE:

General Physics with Calculus

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP NO.**

5. UNITS: 5 **HRS/WK LEC:** 4 Total: 70 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Physics 4B is the second semester of a three semester sequence that provides a comprehensive survey of the major topics of physics for students majoring in engineering or the physical sciences.

8. COURSE/CATALOG DESCRIPTION

Comprehensive study of major topics of physics: Thermodynamics, electric forces and fields, magnetic forces and fields, electricity, and AC and DC circuits.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only [X]
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
AA/AS area 1, CSU areas B1, B3, IGETC area 5
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Demonstrate a critical understanding of temperature, internal energy, thermodynamics, electric and magnetic forces, AC and DC circuits, and electromagnetic fields by solving computational problems, performing laboratory experiments, and passing examinations.
2. Work as a team member in discussing examples and applications of physics in these areas, and in performing laboratory experiments.
3. Solve physics problems of moderate difficulty in these areas using the methods of calculus.
4. Experiment with and measure physical phenomena in the areas studied.
5. Write clear and concise laboratory reports analyzing and discussing the results of physics experiments conducted in the laboratory.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT: List Percents

- | | |
|---|-----|
| <ul style="list-style-type: none"> 1. Temperature Internal Energy First Law of Thermodynamics Heat Engines and Refrigerators Entropy | 25% |
| <ul style="list-style-type: none"> 2. Electric Force Electric Fields Electric Potential and Energy Capacitance | 25% |
| <ul style="list-style-type: none"> 3. Current and Resistance | 25% |

DC Circuits
Magnetic Force
Magnetic Fields

4. Generating Electricity 25%
Inductance
AC Circuits
Electromagnetic Waves

11B.

LAB CONTENT:

Each lab session is a three hour exercise in planning and carrying out a measurement of a physical system and includes data collection, data reduction, statistical analysis, and assessment of reliability of results. Students work together in groups in taking data and calculating results, and then write individual lab reports in which they analyze and discuss their results. The lab exercises comprise approximately 15-20% of the course grade and include the following titles:

Specific Heat
Heat engines
Electric Field and Potential
Introduction to DC Circuits
Series and Parallel Circuits
Introduction to Magnetism
Charge to Mass Ratio of the Electron
Time-Dependent Circuits
AC Circuits

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Discussion
3. Other: Lecture presentation of physics concepts
Discussion of mathematical representations of physical quantities
Examples of setting up and solving physical situational problems
Students solve problems in class, and discuss related concepts
Classroom demonstrations of physical principles
Laboratory exercises

13. ASSIGNMENTS: 9.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: Conceptual questions Problem solving Lab reports

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)
(Laboratory experiments and reports)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Halliday, Resnick, Walker	<i>Fundamentals of Physics</i> (8/e).	Wiley, -	(2008).
Andrew Elby	<i>Portable TA, Volume I</i>	Prentice Hall, -	(1998). Rationale: -
Tsai	<i>"Lab Manual" for Physics 4B</i>	-, -	(2007).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

16. Designate Occupational Code (check ONE only):

- A Apprenticeship
- B Advance Occupational
- C Occupational
- D Possible Occupational
- E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- PHYS 004A: General Physics with Calculus
Subject course and pre/corequisite is: Sequential
Entry Skills: • Demonstrate a critical understanding of kinematics, dynamics, gravity, energy, momentum, rotation, equilibrium, fluids, oscillations, waves, and sound. • Solve physical problems of moderate difficulty in these areas using the methods of calculus. • Write clear and concise laboratory reports analyzing and discussing the results of physics experiments.
and
- MATH 003B: Calculus II
Subject course and pre/corequisite is: Sequential
Entry Skills: • Compute integrals of algebraic expressions by several methods, including by parts, partial fraction expansion, and trigonometric substitution; • Calculate areas between two plane curves; • Calculate volumes of certain three-dimensional figures; • Find volumes of plane regions between two curves revolved around a vertical or horizontal axis; • Find arc length and the surface area of curves revolved around vertical or horizontal axes; • Determine the convergence/divergence of algebraic and transcendental sequences and series, and their radius of convergence where appropriate; • Use power series to approximate algebraic and transcendental functions over appropriate intervals. • Demonstrate a satisfactory ability to analyze a mathematical situation of any type listed above, organize a method of solutions, and perform the solution in a clear written or oral dissertation.

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: peralta peralta **STATE CONTROL NUMBER:** CCC000376003
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE:
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: PHYS

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

PHYS 004C

3. COURSE TITLE:

General Physics with Calculus

4. COURSE: COA New Fee Based Course [] COA Course Changes only in Non-Catalog Info [] COA New Course[X] COA Course Changes in Catalog Info [] COA - Course Reactivation [] COA Course Reactivation [] **TOP NO.**

5. UNITS: 5 **HRS/WK LEC:** 4 Total: 70 **HRS/WK LAB:** 3 Total: 52.5 **HRS/WK TBA:** 0 Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC: **AVERAGE ENROLLMENT:**

7. JUSTIFICATION FOR COURSE

Physics 4C is the third semester of a three-semester sequence that provides a comprehensive survey of the major topics of physics for students majoring in engineering or the physical sciences.

8. COURSE/CATALOG DESCRIPTION

Comprehensive study of major topics of physics: Light, interference, relativity, quantum physics, atoms, molecules, and nuclei.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [] Pass/No Pass [] Letter Grade Only [X]
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
AA/AS area 1, CSU areas B1, B3, B4, IGETC area 5
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation:

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Demonstrate a critical understanding of geometric and wave optics, special relativity, quantum physics, atoms, molecules, and nuclei by solving computational problems, performing laboratory experiments, and passing examinations.
2. Work as a team member in discussing examples and applications of physics in these areas, and in performing laboratory experiments.
3. Solve physics problems of moderate difficulty in these areas using the methods of calculus.
4. Experiment with and measure physical phenomena in the areas studied.
5. Write clear and concise laboratory reports analyzing and discussing the results of physics experiments conducted in the laboratory.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

LECTURE CONTENT: List Percents

1. Light 25%
Mirrors and Lenses
Interference
Diffraction and Polarization

2. Special Relativity 25%
Thermal Radiation
Quantum States
Wave Functions

3. Atoms 25%
Molecules

Solids
Nuclei

4. Fission and Fusion 25%
Nuclear Radiation
Elementary Particles
Astrophysics

11B.

LAB CONTENT:

Each lab session is a three hour exercise in planning and carrying out a measurement of a physical system and includes data collection, data reduction, statistical analysis, and assessment of reliability of results. Students work together in groups in taking data and calculating results, and then write individual lab reports. The lab exercises comprise approximately 15-20% of the course grade and include the following titles:

Ray Tracing
Lenses
Speed of Light
Photoelectric Effect
Spectroscope Calibration
Spectroscopy
Diodes
Nuclear Physics
Field Trip(s)

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Discussion
3. Other: Lecture presentation of physics concepts
Discussion of mathematical representations of physical quantities
Examples of setting up and solving physical situational problems
Students solve problems in class, and discuss related concepts
Classroom demonstrations of physical principles
Laboratory exercises

13. ASSIGNMENTS: 9.5 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: Conceptual questions Problem solving Lab reports

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
 NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)
(Laboratory experiments and reports)

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Halliday, Resnick, Walker	<i>Fundamentals of Physics</i> (8/e).	Wiley, -	(2008).
Tsai	<i>"Lab Manual" for Physics 4C</i>	-, -	(2007).

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? Yes No

Are nonprint materials adequate? Yes No

Are electronic/online resources available? Yes No

Are services adequate? Yes No

Specific materials and/or services needed have been identified and discussed. Librarian comments:

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

Primarily college level

NOT primarily college level

16. Designate Occupational Code (check ONE only):

A Apprenticeship

B Advance Occupational

- [] C Occupational
- [] D Possible Occupational
- [X] E Non-Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

PREREQUISITE(S):

- PHYS 004B: General Physics with Calculus
Subject course and pre/corequisite is: Sequential
Entry Skills: • Demonstrate a critical understanding of thermodynamics, electric and magnetic forces, AC and DC circuits, and electromagnetic fields. • Solve physical problems of moderate difficulty in these areas using the methods of calculus. • Write concise and clear laboratory reports communicating the results of physics experiments.
- MATH 003C: Calculus III
Subject course and pre/corequisite is: Sequential
Entry Skills: • Perform algebraic operations on vectors in two or three spaces; • Understand functions of two and three variables, including the visualization of surfaces defined by functions of two variables; • Compute derivatives of algebraic and transcendental functions of several variables; • Compute the integral of algebraic and transcendental functions of several variables, where functions are in the Cartesian or the Polar Coordinate System; • Use concepts above to solve practical problems, including flow and equilibrium problems. • Students must demonstrate a satisfactory ability to analyze a mathematical situation of any type listed above, and organize a method of solution, and perform the solution in a clear written or oral dissertation.

PERALTA COMMUNITY COLLEGE DISTRICT COURSE OUTLINE

COLLEGE: College of Alameda **STATE APPROVAL DATE:** 09/19/2007
ORIGINATOR: Patricia Tsai **STATE CONTROL NUMBER:** CCC000354169
BOARD OF TRUSTEES APPROVAL DATE:
CURRICULUM COMMITTEE APPROVAL DATE: 08/25/2014
CURRENT EFFECTIVE DATE:

DIVISION/DEPARTMENT: PHYS

1. REQUESTED CREDIT CLASSIFICATION:

Community Services (Fee-based) []	Degree Credit [X]	Non-Degree Credit []	Non-Credit []	Stand Alone Course []
Course Is A Basic Skill Course []				

2. DEPT/COURSE NO:

PHYS 010

3. COURSE TITLE:

Introduction to Physics

4. COURSE: COA COA COA COA COA - Course COA Course **TOP** 1901.00
New Fee Course New Course Reactivation[] Reactivation[] **NO.**
Based Changes Course[] Changes
Course[] only in in
Non-Catalog Catalog
Info[X] Info[]

5. UNITS: 4

HRS/WK LEC: 4 Total: 70

HRS/WK

HRS/WK TBA: 0 Total:

LAB: 0

Total:

6. NO. OF TIMES OFFERED AS SELECTED TOPIC:

AVERAGE ENROLLMENT:

7. JUSTIFICATION FOR COURSE

Physics 10 provides a broad survey of all of physics at an introductory level that meets general education requirements or prepares students for more advanced physics series.

8. COURSE/CATALOG DESCRIPTION

Elementary study of major topics of physics: motion, forces, energy, momentum, rotation, oscillation, sound, electromagnetics, light, quantum physics, atoms, nuclei, and relativity.

9. OTHER CATALOG INFORMATION:

- a. Modular: Yes [] No [X] If yes, how many modules:
- b. Open entry/open exit: Yes [] No [X]
- c. Grading Policy: Both Letter Grade or Pass/No Pass [X] Pass/No Pass [] Letter Grade Only []
- d. Eligible for credit by Exam: Yes [] No [X]
- e. Repeatable according to state guidelines: Yes [] No [X] If yes, number of allowable repeats:
- f. Required for degree/certificate (specify):
- g. Meets GE/Transfer requirements (specify):
AA/AS area 1, CSU areas B1, IGETC area 5
- h. C-ID Number:

- i. Are there prerequisites/corequisites/recommended preparation for this course? Yes [X] No []
Date of last prereq/coreq validation: 08/25/2014

10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS): (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Apply the fundamental laws of physics to analyze situations involving mechanics, heat, electricity, magnetism, sound, optics and modern physics.
2. Calculate physical quantities using elementary mathematics as applied to physical situations.
3. Discuss everyday phenomena, and relate observations to the fundamental laws of physics.

11A. COURSE CONTENT: List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

- I. Unit 1, Mechanics. 34%
 - A. Motion in 1 dimension.
 - B. Motion in 2 dimensions: Projectile Motion and Circular Motion.
 - C. Newton's Laws of Motion.
 - D. Newton's Law of Universal Gravitation.
 - E. Conservation of Energy.
 - F. Conservation of Momentum.
- II. Unit 2, Fluids, Thermodynamics, Electricity, Magnetism. 33%
 - A. Pressure; fluid flow.
 - B. Laws of Thermodynamics.
 - C. Heat Engines, Carnot Efficiency, Heat Pumps, Refrigerators.
 - D. Static electricity: Conductors and insulators; Coulomb's Law.
 - E. Electrical Circuits, Current, Voltage, Power, Electrical costs.
 - F. Magnetism.
- III. Unit 3, Waves, Light, and Modern Physics. 33%
 - A. Mechanical, sound, and light waves.
 - B. Optics.
 - C. Atomic physics.

- D. Nuclear physics: Mass-to-energy conversion. Radioactive decay, fission, fusion.
- E. Fundamental forces.

11B.

LAB CONTENT:

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Lecture
2. Observation and Demonstration
3. Discussion
4. Projects
5. Multimedia Content
6. Threaded Discussions
7. Other: 1) Discussions explore concepts of physics and mathematical representations of physical quantities.
2) Examples and demonstrations applying concepts and principles of physics to specific situations.
3) Threaded discussions allow students to apply concepts and principles of physics to specific situations.
4) Projects using everyday items allow for hands on learning.

13. ASSIGNMENTS: 8 hours/week. (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments: 1) Knowledge is enhanced through assigned readings. 2) Critical thinking and knowledge are facilitated through a) written responses to questions requiring conceptual reasoning. b) responses to questions requiring analytical reasoning. 3) Proficiency with presentation of results is facilitated through written reports on hands-on projects using everyday items.

ASSIGNMENTS ARE: (Check one. See definition of college level):

- Primarily college level
- NOT primarily college level

14. STUDENT ASSESSMENT: (Grades are based on): (Check as many boxes as are applicable. Note: For degree credit, AT LEAST ONE of the first three boxes must be checked. If "ESSAY" is not checked, please explain why here.)

- ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

Why "ESSAY" is not checked:

- COMPUTATION SKILLS
- NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)
- SKILL DEMONSTRATION
- MULTIPLE CHOICE
- OTHER (Describe)

- Knowledge mastery and application is assessed through the:
- 1) Evaluation of written explanations of topics.
 - 2) Evaluation of solutions requiring application of mathematics.
 - 3) Evaluation of written reports using everyday items for hands-on learning.

15. TEXTS, READINGS, AND MATERIALS:

A. Textbooks:

Author	Title and Edition	Publisher	Date of Publication*
Griffith, W. Thomas. Brosing, Juliet W.	<i>The Physics of Everyday Phenomena (7/e).</i>	McGraw-Hill, -	(2012). Rationale: -

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

1. Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

- Are print materials adequate? Yes [] No []
- Are nonprint materials adequate? Yes [X] No []
- Are electronic/online resources available? Yes [X] No []
- Are services adequate? Yes [X] No []

Specific materials and/or services needed have been identified and discussed. Librarian comments:

Department will meet with Library to assess needs for support for course. Collections are not adequate in contemporary physics for reading and research materials to use as background and additional materials to the textbook. Online and articles databases, however, have adequate, if superior, specific research materials and reports. No research paper is listed as an assignment.

2. Other Resources: Identify types, location, and availability of other resources and materials required for this course.

C. Readings listed in A and B above are: (Check one. See definition of college level):

- [X] Primarily college level
- [] NOT primarily college level

16. Designate Occupational Code (check ONE only):

- [] A Apprenticeship
- [] B Advance Occupational
- [] C Occupational
- [] D Possible Occupational

17. Levels Below Transfer:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

1a. Prerequisites/Corequisites/Recommended Preparation:

Recommended Preparation:

- MATH 201: Elementary Algebra

Subject course and pre/corequisite is: Sequential

Entry Skills: • Simplify expressions involving fractions, decimals, and variables using the correct order of operations • Work with formulas from a variety of different disciplines (use formulas to calculate values) • Solve equations and use them to solve practical problems o first degree equations and inequalities o Second degree quadratic equations and inequalities o radical equations involving square root • Solve Systems of equations and inequalities and use them to solve practical problems • Translate a verbal expression into a variable expression. • Solve basic word problems in one and two variables • Graph linear equations in two variables • Find the equation of a line

- MATH 202: Geometry

Entry Skills: - Identify points and lines in the plane - Measure angles using a protractor and indirect methods - Use basic facts involving parallel lines to prove angles are equal. - Find the areas of regular polygons

G. Science Annex Floor Plan

H. Shuttle Schedule

Mornings

(7:00 a.m. to 12:07 p.m.)

Atlantic/ Webster	Atlantic/ Challenger	Wind River	Webster/ Atlantic	BART:	
				Lake Merritt Arrives	Lake Merritt Departs
			7:00	7:07	7:15
7:20	7:22	7:25	7:30	7:37	7:45
7:50	7:52	7:55	8:00	8:07	8:15
8:20	8:22	8:25	8:30	8:37	8:45
8:50	8:52	8:55	9:00	9:07	9:15
9:20	9:22	9:25	9:30	9:37	9:45
9:50	9:52	9:55	10:00	10:07	10:15
10:20	10:22	10:25	10:30	10:37	10:45
10:50	10:52	10:55	11:00	11:07	11:15
11:20	11:22	11:25	11:30	11:37	11:45
11:50	11:52	11:55	12:00	12:07	drop-off only



Afternoons/Evenings

(3:30 p.m. to 6:30 p.m.)

Atlantic/ Webster	Atlantic/ Challenger	Wind River	Webster/ Atlantic	BART:	
				Lake Merritt Arrives	Lake Merritt Departs
				3:30	3:37 3:45
3:50	3:52	3:55	4:00	4:07	4:15
4:20	4:22	4:25	4:30	4:37	4:45
4:50	4:52	4:55	5:00	5:07	5:15
5:20	5:22	5:25	5:30	5:37	5:45
5:50	5:52	5:55	6:00	6:07	6:15
6:20	6:22	6:25	drop-off (Alameda drop-off only)	only	no service



Holidays

The shuttle does *not* run on:

New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Day After Thanksgiving Day, between Christmas Eve and New Year's Day

Bicycle Information

Bicyclists must secure, load and unload their own bicycles.

Bicyclists are responsible for the loss or damage to bicycles being transported on the Estuary Crossing Shuttle.

Bicycle Racks

Exterior: Bicycle racks are mounted on the front of the bus, and can hold up to two standard bicycles.

Interior – Leaning: Secure bicycles to the rack by stretching bungee cord across the bicycles and back toward the window. Bicycles should not extend into the aisle.

Front seats are reserved for seniors and individuals with disabilities. Please move if requested.

Alameda Shuttle Stops

- #1) Atlantic Ave. by Webster St.
- #2) Marina Village - College of Alameda satellite campus (Atlantic Ave. by Challenger Dr.)
- #3) Wind River – Wind River Way
- #4) Webster St. by Atlantic Ave.

Public parking is not permitted at the Alameda stops.

Oakland Shuttle Stops

- #5) Harrison St. by 8th St.
- #6) Lake Merritt BART (Madison St. betw 8th & 9th St., near Laney College)



Sponsored by:



WIND RIVER



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**BAY AREA
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Effective January 2, 2014



Estuary Crossing Shuttle

creating connections • linking communities

Cost: Free

Who Can Ride:

- General Public
- Commuters to BART
- Pedestrians – Tube alternate
- Bicyclists – fits 10 bicycles
- Students – travels between College of Alameda and Laney College

**Hours of Operation
(weekdays only):**

7:00 am – 12:07 pm
3:30 pm – 6:30 pm

Frequency:

Runs every 30 minutes

For more information:

www.EstuaryXINGshuttle.org

(510) 747-7936

(415) 513-5777 (emergency #)

I. Exchange of Property Agreement

**PERALTA COMMUNITY COLLEGE DISTRICT
RESOLUTION NO. 07/08-59**

TO EXCHANGE REAL PROPERTY

WHEREAS, the City of Alameda ("City") has approved the implementation of "Wilver 'Willie' Stargell Avenue," which was formerly known as "Tinker Avenue," ("Stargell Avenue") and its extension as an arterial four-lane roadway between Main Street and Webster Street ("Stargell Extension Project") and, subject to separate Peralta Community College District Board of Trustee ("Board") approval, the donation by Peralta Community College District ("District") of certain real property located within the proposed right of way for the Stargell Extension Project ("College ROW Property"); and

WHEREAS, the donation of the College ROW Property will sever approximately two acres of real property from the College of Alameda campus ("College"), creating a remainder parcel ("College Remainder Parcel") as more particularly depicted on Attachment "A" hereto; and

WHEREAS, the Community Improvement Commission of the City of Alameda ("CIC") has proposed an exchange of the College Remainder Parcel with the District ("Proposed Exchange") for certain real property located at 860 Atlantic Avenue in the City, APN No. 074-1343-006 ("Property"); and

WHEREAS, the District has entered into, conditioned upon the Board's approval, that certain Agreement of Property Exchange and Joint Escrow Instructions ("Exchange Agreement") dated as of May 13, 2008 for the Proposed Exchange; and

WHEREAS, the District has conducted the following investigation of the Property the feasibility and cost of converting the building to classroom use pursuant to all applicable laws and regulations ("Due Diligence"), and has found that: (1) there are certain restrictions ("CCR's") on the Property which (a) create an architectural committee to review and approve exterior changes to the building on the Property, (b) create an association to perform certain maintenance of common areas and which require an annual assessment for such maintenance of approximately \$16,161 a year and possibly special assessments to reimburse the Property's association for any special maintenance, (c) requires the District to maintain the building at its own cost and expense, and (d) allows shared parking between 960 Atlantic and the Property; and (2) a 1915 Bond assessment in the amount of \$70,000 per year until the year 2013 ("Assessment"); and

WHEREAS, the terms and conditions terms of the Proposed Exchange and the Exchange Agreement are as follows: (1) the City shall indemnify the District for any challenges filed during the Notice of Determination period (which period is thirty (30) days after the filing of the Notice of Determination with the County Clerk), (2) the City has agreed, in the event that the Proposed Exchange does not occur and the City condemns the College ROW Property, not to introduce this Resolution into evidence for purposes of determining the value of the College ROW Property, (3) the Developer shall indemnify the District in the event that the Proposed Exchange does not occur and Caltrans condemns the College ROW Property and introduces this Resolution into evidence

for purposes of determining the value of the College ROW Property for attorney's fees and costs to defend such action not to exceed \$25,000.00, (4) although no use for the College Remainder Parcel has been proposed, the District agrees not to oppose a mixed use, commercial or affordable housing use for the College Remainder Parcel, and (5) the closing of the Proposed Exchange under the Exchange Agreement is no later than August 7, 2008 ("Closing"); and

WHEREAS, pursuant to California Education Code Section 81430, the District has reviewed the District's need for use of the College Remainder Parcel for school classroom buildings for the time period prior to September 30, 2008 ("Finding Period"), and the Board hereby finds according to California Education Code Section 81430 that the College Remainder Parcel "is not and will not at the time of delivery of title or possession be needed for school classroom buildings by the College" ("Classroom Use Finding"); that the Classroom Use Finding shall only be relevant and applicable to the Finding Period and shall be automatically revoked on September 30, 2008 if the Closing has not occurred on or before such date; and the need for school classroom buildings is diminished by the Dedication in Resolution 07/08-58 and exchange for Property, a building that can be used for classroom purposes.

WHEREAS, the Board finds that the conditions of California Education Code Section 81432, which must be satisfied prior to any exchange of the District's real property, have been or will be met prior to Closing; and

WHEREAS, in conjunction with the Board's decision to adopt this Resolution of Order to Exchange Real Property, the Board, as a Responsible Agency has adopted under Resolution No. 07/08-51 certain findings as required under the California Environmental Quality Act, Public Resources Code, Division 13, Sections 21000 *et seq.*; and

WHEREAS, the Board hereby approves the Proposed Exchange, ratifies the Exchange Agreement, approves the Due Diligence and waives the Contingency Period under the Exchange Agreement, and orders the Closing pursuant to the Exchange Agreement.

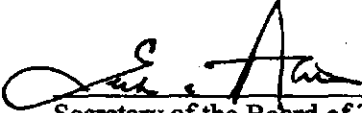
NOW, THEREFORE, BE IT RESOLVED that the Board hereby adopts this Order to Exchange the College Remainder Parcel with the City; and

BE IT FURTHER RESOLVED that the Board has received the report required under California Public Resources Code Section 21151.2 from the City's Planning Commission and as the "Governing Board" pursuant to Government Code section 53094(b) hereby renders the City's zoning ordinances inapplicable to classroom facilities planned for the Property; and

BE IT FURTHER RESOLVED that the Chancellor, as Secretary of the Board, is authorized and directed to execute the necessary exchange documents and the Grant Deed for the College Remainder Parcel ("Closing Documents"), deliver them to escrow and, upon the satisfaction of all conditions precedent to the closing of the transactions set forth in the Exchange Agreement, deliver the Closing Documents to the City and accept a Grant Deed for the Property vesting title in fee to the Property in the District. The time within which judicial review of this decision pursuant to California Code of Civil Procedure Section 1094.5 must be sought is governed by the California Code of Civil Procedure Section 1094.6.

PASSED AND ADOPTED at a regular meeting of the Board of Trustees of the Peralta Community College District held on this 24th day of June, 2008, by a unanimous vote:

AYES: Trustees González Yuen, Guillén, Gulassa, Handy, Hodge, Riley, and Withrow.
NOES: None
ABSTAIN: None
ABSENT: None


Secretary of the Board of Trustees
Peralta Community College District
Alameda County
State of California

J. Board of Trustee Minutes- November 18, 2008



BOARD OF TRUSTEES
OF THE
PERALTA COMMUNITY COLLEGE DISTRICT
MINUTES
NOVEMBER 18, 2008

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

González Yuen Pr__ Ab__Hodge Pr__ Ab__Thompson Pr__ Ab__ Guillén Pr Ab Riley Pr Ab Tobor Pr Ab Handy Pr__ Ab__ Withrow Pr__Ab Gulassa Pr _ Ab __ The Regular Meeting of the Board of Trustees will begin at 4:30 P.M. in the Boardroom, District Administrative Center, 333 East Eighth Street, Oakland. The first item of business will be to announce the matters to be discussed in Closed Session. Immediately following that announcement, the Board will enter Closed Session. The Regular Meeting in Open Session will reconvene at 7:00 P.M.

Present: Trustee Gulassa, Trustee Gonzalez Yuen, Trustee Guillen, Trustee Hodge, Trustee Handy, Trustee Withrow, Trustee Riley, and Student Trustee Thompson.
Absent: Student Trustee Tobor.

REPORT OF CLOSED SESSION ACTIONS 7:01 P.M.

There were no items to report out of closed session.

APPROVAL OF THE AGENDA 7:02 P.M.

MINUTES 7:03 P.M.

MOTION: Motion by Trustee Gonzalez Yuen, second by Trustee Guillen to approve.

1. [Consider Minutes of the Board Meeting of October 28, 2008. Copies of the minutes of the Board of Trustees' Meetings are posted on Granicus. As a matter of policy \(Board Policy 1.10\), no action shall be taken on any item not identified as an "action item."](#)

Notes with edits were submitted by Trustee Guillen. Trustee Gonzalez Yuen would like to wait to see those changes first before voting on approving the minutes. The minutes will be reviewed at the next Board meeting.

ASSOCIATED STUDENT GOVERNMENT REPRESENTATIVES REPORT 7:04 P.M.

At this time in the meeting, representatives of the associated student governments will be afforded an opportunity to address the Board. (Please provide your name and position, and line-up to speak.)

Merritt College representative reported on their student activities. She thanks everyone for their efforts to help students in need of Financial Aid.

COMMUNICATIONS FROM MEMBERS OF THE PUBLIC 7:20 P.M.

This portion of the agenda provides an opportunity for members of the public to address the Board on matters not included on this agenda. A maximum of 15 minutes (3 minutes per individual maximum) will be provided for speakers under this

agenda item. Requests to speak which cannot be honored within the time limit will be scheduled for subsequent meetings in the order received. Under the Brown Act, Trustees and District staff are not allowed to discuss and/or take formal action at today's meeting on items brought before them under this item. Trustees and District staff are only allowed to respond briefly. Persons submitting cards to address an item included on the agenda will be called upon at the time the agenda item is considered by the Board. Cards must be received prior to the Board's consideration of the item and honored in the order the cards are received by the recording secretary.

Speaker Drisker is a Laney loan only student. She will submit her written comments for the minutes. Speaker Queen is a Laney student asked for a health fee for health services to help with stress problems.

Speaker is a Laney student upset that there was no back-up program to deal with the Fi Aid problems. She wants an explanation of the delays and a plan, and if it will occur in the future and how long it will take.

Speaker Gavaine asks for help during these difficult times. Speaker Reece is not a Fi Aid student, but he sees the pain of suffering students. He feels the Board is in breach of contract with them. He wants the Board to communicate to say where there are problems, and he wants to ensure that the community needs are met.

Speaker Baker is a student and a foster student. She lives off of Fi Aid. She's brought in all of her papers. She doesn't know who her counselor is, and she can't get a response to confirm the status of her case. She wants to know how long it will take for her to receive her payment. Speaker Nassberg wants to thank the Board for moving quickly to get out checks. The loan issue is festering on the horizon, and this issue needs to be clarified. He wants to know who will be making an investigation and analysis. Fi Aid counselors can't do anything, no meetings to give them updates, and can't access information. EPOS gave books, but gave him the wrong edition. He was given the 9th edition and not the 10th edition. Speaker Casey, a Laney student, reported that they are paying for late fees. Transfer students getting letters of explanation to the next school? Late fees and paying for books? What compensation will these students receive? For 3 months she's tried to speak to people or look online and she hasn't received much information. Late fees for books, books running out, and other late fees. It was pointed out that Follett gives book vouchers, and individual campuses have that information for students in need.

MOTION: Motion by Trustee Gonzalez Yuen, second by Trustee Withrow reconsider approving the agenda.

AYES:	Trustee Gulassa, Trustee Gonzalez Yuen, Trustee Guillen, Trustee Hodge, Trustee Handy, Trustee Withrow, and Trustee Riley.
NOES:	None
ABSTAIN:	None
ABSENT:	None

The motion passed.

MOTION: Motion by Trustee Guillen, second by Trustee Riley remove Items 5 and 15 from the agenda.

AYES:	Trustee Gulassa, Trustee Gonzalez Yuen, Trustee Guillen, Trustee Hodge, Trustee Handy, Trustee Withrow, and Trustee Riley.
NOES:	None
ABSTAIN:	None
ABSENT:	None

The motion passed.

[IDENTIFICATION OF ITEMS TO BE REMOVED FROM THE CONSENT CALENDAR FOR DEBATE 7:35 P.M.](#)

Item 18

[IDENTIFICATION OF ITEMS TO REMAIN ON THE CONSENT CALENDAR AND PULLED FOR DISCUSSION 7:37 P.M.](#)

Items 4, 21, 27

REPORTS AND PRESENTATIONS 7:40 P.M.

2. [Program of Distinction - College of Alameda, Apparel Design](#) Presenters: Derek Piazza and OJ Roundtree [A report will be given on the Apparel Design and Merchandising Program \(ADAM\), which provides educational training that prepares students with the vocational knowledge and skills needed to successfully secure a career in the vast fields of apparel design and manufacturing. The ADAM Program fosters a well-balanced educational environment which promotes professionalism, integrity and high standards of performance as they relate to the everyday operations of the apparel industry. The ADAM discipline offers a Two Year Certificate of Completion.](#)

An update was given on this program.

3. [Report by the Maas Company](#) Presenters: Vice Chancellor Allen and Maas Company representatives

Background Materials

An overview was presented on this project. Trustee Gonzalez Yuen asked about enrollment growth forecast, and he wanted to know if we had 5 and 10 year growth information, and yes, they can provide this information. Trustee Guillen asked to ensure that the company appropriately allocates necessary space, and recoding of space will occur. 860 Atlantic is considered swing space at this time. Trustee Gonzalez Yuen asked about Laney college actual lab space, and Maas feels it's insufficient quality and quantity of space, and final documents will reflect that. VC Ikharo shared that major planning will occur, and they will go to the community to speak to the stakeholders. Some buildings may need to come down, and priority decisions will need to be made. Trustee Gulassa asked about if financial resources and maintenance are included in the projections. Total cost of ownership will be reviewed in the document.

INFORMATIONAL ITEMS AND ORAL REPORTS 8:00 P.M.

CHANCELLOR

Chancellor's Report

Financial Aid Report Presenter: James Bracy Website Upgrade Report Presenters: Jeffrey Heyman, Jonathan Olkowski, Fabian Banga, and Michael Orkin Foundation Dinner Report Presenter: Associate Vice Chancellor and Special Assistant Jelks Vice Chancellors' Reports Enrollment and Accreditation Update Presenter: Vice Chancellor Allen Self-study timetable Update Presenter: Vice Chancellor Allen Student Health survey Update Presenter: Jeanette Dong General Services Update Presenter: Vice Chancellor Ikharo Budget Update Presenter: Vice Chancellor Smith

A Financial Aid update was given. The Chancellor explained why we went to Regent. It gave more financial aid to our students if we applied as a 4 district unit, rather than as a single unit system. The system also has to be connected to the State and Fed agencies. 55% had information lacking, remaining 24% will be finished in the next ten days, and 24% is complete. SAFE system is looking to expire. The Chancellor apologized to the students for these delays. Some of the students' have received partial payments, or aren't carrying the full load. Eligibility will expand through summer school and the entire academic year. COA is almost complete with their reviews. Merritt will be done within the next week, and then efforts can be focused on BCC and Laney. VC Allen apologized for all of the problems. He reviewed the statistics and the final numbers that still need to be reviewed, 2730 files district-wide still need to be reviewed. This data will be publicized in the future on the website. Gulassa wants to know how students are contacted by phone and/or e-mail. It is expected that the job will be completed within ten days. Students will also get letters. Students will be told who they can contact at the colleges to get an update on the status of the situation. Guillen asked about the emergency outreach we're taking to get Fi Aid specialists and workers to help us to get through the files and to help that this isn't repeated. Guillen asked about the posting information.

Merritt College gave a report to discuss the nursing student claims. Dr. Berry and Dr. Kenney addressed the student allegations from a prior Board meeting. The claims were reviewed individually. Student success suggestions were presented by the program for the future to help to alleviate the allegations. Guillen asked how the number 80% was arrived, and that was explained. This fall class used the new criteria model. The past class did not have those criteria of the State Chancellor's

standard's of admission. Trustee Hodge wanted an update on the summer Bridge program. The class can't be mandated. Trustee Riley asked clarifying that the Bridge program was voluntary, where this year there was an average of 7 students, and 37 students in the past. They think that economics played a part in that decision, in that students had to work. They are looking at the Bridge program in the future, but they don't know if it will be available in the future. Trustee Hodge wanted to know if the course could be offered online. They haven't explored that option. Trustee Hodge would have liked to been prepared for this discussion. She thinks the time of and other components of the Bridge program should be examined to help our failing students. Trustee Gulassa asks about what's been done to counter the allegations.

Alton Jelks gave an update on a website program that had been offered to the Merritt College nursing program. The college doesn't feel it's the right time to accept this program. Trustee Gulassa asked that reports be condensed. It's been asked that this issue be deferred, to return to the next meeting with full documentation.

Chancellor was asked to decide what is critical tonight in his reports. Website Upgrade report was given.

VC Allen gave an update. One week from today the Board will receive a pdf and a hard copy self-studies.

VC Smith gave a budget update. \$24.2 - 27.8 Billion budget short-falls are expected. 7.7%, possibly going up to 10% unemployment, the community colleges are the key to reneventing the State's budget woes. State benefits of the community colleges were presented.

Trustee Gonzalez Yuen asked for the specific impacts that are being considered on Peralta's budget. VC Smith will present something in December. A projected budget can't be presented until the State budget is established. A pre-adoption update will be presented. How are faculty and staff and colleges involved in making budget priorities and communications? The Chancellor reported on this. Trustee Gonzalez Yuen shared that communication doesn't always go to the grassroots level. Jeff will also create a bulletin on these issues, with hard and web copies. Trustee Gulassa asks for continued communications along these lines.

[Colleges' Reports](#)

Merritt College Presenter: President Adams

[Berkeley City College Presenter: President Inclan](#)

Report from the Academic Senate and comments on the CIPD report (Item 26) Presenter: DAS President Bielanski

President Inclan acknowledged the hard work of the staff working on the self-study.

[College of Alameda Presenter: President Herring](#)

President Herring reported that there was a fabulous staff and faculty talent show was held last week.

[Laney College Presenter: President Chong](#)

Dr. Webb shared that all 600 employees work hard with passion and stress on the District goals. She commends the hard work of all of those working on the self-study in draft form. They are working on Ed Master plans, SLO assessments, and Facilities master plans.

Report from the Academic Senate and comments on the CIPD report Presenter: DAS President Bielanski

Dr. Bielanski commented on the CIPD report, which are attached to the minutes.

[Background Materials](#)

[COMMENTS FROM THE BOARD OF TRUSTEES](#)

(Announce any upcoming Board committee meetings.) Board Listening Session 12 - 1:30 p.m. 12/2 Merritt College, Student Lounge Board Committee Meetings: Facilities 11/20 4-6 p.m.; Construction Delivery methods 12/2 5 - 7 p.m.; Student Services 12/4 4 - 5:30 p.m.

Trustee Withrow shared that some of the Trustees went to NY to meet with financial advisors. The management of our funds are very competitive. He's confident that our staff is one top of the finances, for the long-run. Trustee Guillen expressed his thanks for his hard work on our investments. The Board Facilities meeting has been changed to Tuesday 11/25 from 4-6 pm.

CONSENT/CALENDAR (FOR ACTON) 8:30 PM

All action items are to be considered to be a part of a consent calendar. Trustees are given the opportunity to pull specific items off the consent calendar for discussion and action. All items that have not been pulled by a Trustee will be considered in a block for comments by the public and action by the Board. Any contract approval is subject to negotiation and execution by the Chancellor.

MOTION: Motion by Trustee Guillen, second by Trustee Withrow to approve the consent calendar, including Items 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, and 40.

AYES:	Trustee Gulassa, Trustee Gonzalez Yuen, Trustee Guillen, Trustee Hodge, Trustee Handy, Trustee Withrow, and Trustee Riley.
NOES:	None
ABSTAIN:	None
ABSENT:	None

The motion passed.

Item 21 - Trustee Handy abstains; Trustee Hodge votes no

Item 16 - Trustee Gonzalez Yuen votes no. The consent calendar passes.

4. [Consider Approval of Resolution 08/09-21 on Student Health Centers](#) Presenters: [Trustee Guillén and Jeanette Dong](#)
[Consider approval of resolution 08/09-21 to improve health services for Peralta students.](#)

[Background Materials](#)

Trustee Hodge wanted to know why a resolution was presented. Trustee Guillen wanted to articulate the goals that the student services committee have to partner with the city on this project.

5. Consider Approval of Contract Extension for Sustainable Peralta Organizing and Coordinating Services - Jack Ian Lin
Presenter: Vice Chancellor Sadiq Ikharo It is requested that the Board authorize the extension of an existing independent contractor agreement until June 30, 2009 for the purpose of organizing and coordinating the Sustainable Peralta Initiative. Since August 2006, Mr. Jack Lin has worked in the following seven areas: (1) aiding General Services staff and managers in furthering or beginning Sustainability projects; (2) coordinating selection and project development for comprehensive energy and water resource savings; (3) researching, writing, evaluating model administrative and board policies for sustainability planning for the District; (4) staffing the Chancellor's Advisory Committee on Sustainability; (5) coordinating and organizing logistics, speakers, and volunteers for the 2007 Peralta Conference on Sustainability; (6) engaging community organizations and businesses into partnering with Peralta for sustainability; and (7) bringing recycling back to campuses. His current contract has reached the Chancellor authorized limit of \$25,000; the extension is in the amount of \$35,000 for the extension period. Funding Source: Measure A and General Fund. All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

6. Consider Approval of Board Policy 6.64, Use of College Facilities (revised) Presenter: General Counsel Nguyen

Presented for Trustee consideration and approval is Board Policy 6.64, Use of College Facilities, revised, which proceeds with recommended approval from the Board's Policy Review Committee. The Chancellor recommends approval.

[Background Materials](#)

7. Consider Approval of Board Policy 2.20, Arrangements for Recommending College and District-Wide Policy (revised) Presenter: General Counsel Nguyen Presented for Trustee consideration and approval is Board Policy 2.20, Arrangements for Recommending College and District-Wide Policy, revised, which proceeds with recommended approval from the Board's Policy Review Committee. The Chancellor recommends approval.

[Background Materials](#)

8. Consider Approval of Board Policy 5.15, Code of Instructional Standards(revised) Presenter: General Counsel Nguyen Presented for Trustee consideration and approval is Board Policy 5.15, Code of Instructional Standards, revised, which proceeds with recommended approval from the Board's Policy Review Committee. The Chancellor recommends approval.

[Background Materials](#)

9. Consider Approval of Board Policy 6.60, Safety Policy (revised) Presenter: General Counsel Nguyen Presented for Trustee consideration and approval is Board Policy 6.60, Safety Policy, revised, which proceeds with recommended approval from the Board's Policy Review Committee. The Chancellor recommends approval.

[Background Materials](#)

10. Consider Approval of Board Policy 6.66, Sexual Assault Policy (revised) Presenter: General Counsel Nguyen Presented for Trustee consideration and approval is Board Policy 6.66, Sexual Assault Policy, revised, which proceeds with recommended approval from the Board's Policy Review Committee. The Chancellor recommends approval.

[Background Materials](#)

11. Consider Approval of Board Policy 6.70, Disaster Policy (revised) Presenter: General Counsel Nguyen Presented for Trustee consideration and approval is Board Policy 6.70, Disaster Policy, revised, which proceeds with recommended approval from the Board's Policy Review Committee. The Chancellor recommends approval.

[Background Materials](#)

12. Consider Approval of Board Policy 6.80, Facilities Planning (revised) Presenter: General Counsel Nguyen Presented for Trustee consideration and approval is Board Policy 6.80, Facilities Planning, revised, which proceeds with recommended approval from the Board's Policy Review Committee. The Chancellor recommends approval.

[Background Materials](#)

13. Consider Approval of Board Policy 1.10, Meetings of the Board of Trustees (revised) Presenter: General Counsel Nguyen Presented for Trustee consideration and approval is Board Policy 1.10, Meetings of the Board of Trustees, revised, which proceeds with recommended approval from the Board's Policy Review Committee. The Chancellor recommends approval.

[Background Materials](#)

14. Consider Approval of Resolutions 08/09-18 and 08/09-19 Changing Plan Administrators, and Resolution 08/09-24 to adopt a written plan for public school 403(b) tax-deferred annuity programs Presenter: Vice Chancellor Smith Consider approval of engaging the services of ING to replace Keenan for the District's tax-deferred 403(b) & 457 Plan

administration. Due to increasing administrative complexities and external regulation from the IRS, the District intends to use ING to ensure that we: * are compliant with IRS laws * can preserve as many investment options as possible * minimize administrative costs to both the employee and the District. After screening several companies, ING has the best organizational fit and is suited to meet our needs and expectations. All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

15. Consider Approval of Resolution 08/09-20, OPEB Refunding Bonds Preliminary Official Statement and the Indenture of Trust Presenter: Vice Chancellor Smith This Resolution approves the Preliminary Official Statement which describes the proposed issue of 2008 Taxable OPEB (Other Post-Employment Benefit) Refunding Bonds, which the Board authorized at its regular meeting on October 28. At the October 28 meeting, Bond Counsel indicated to the Board that the Preliminary Official Statement would be presented for approval at a subsequent Board meeting. The new Resolution is intended to comply with the Board's directive and also with S.E.C. requirements for approval of preliminary official statements. The Resolution also approves the final form of the Indenture of Trust relating to the Refunding Bonds. Drafts of these two documents will be provided to the Board prior to the meeting. The Chancellor recommends approval.

[Background Materials](#)

[Resolution](#)

16. Consider Approval of Contract Extension with CIBER, Inc. (Student Administration Technical Consulting) Presenter: Vice Chancellor Smith Consider approval for a contract extension for CIBER to October 31, 2008, to provide continued Student Administration Technical deployment activities of Peralta's Oracle/PeopleSoft HRSA after the system goes live. The estimated cost for this extension is \$95,040 for Student Administration Technical Consulting (Scope of Work #14). On April 4, 2008, CIBER Scope of Work #12 for PeopleSoft Human Resource specific activities and Scope of Work #13 for Student Financials Functional consulting were approved by the Board. Scope of Work #14 which pertains specifically to the Student Administration Technical Deployment consulting should also have been included at the April 4th meeting. All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

17. Annual Organizational Meeting Presenter: Assistant Epstein In accordance with the Education Code, Trustees must select a date to hold the annual organizational meeting. It is recommended that the annual organizational meeting be scheduled for December 9, 2008, as part of the regular Board of Trustees meeting. The Chancellor recommends approval.
21. [Consider Request Authorization to approval of Independent Contractor Agreement for Gary Yee, consulting services for the East Bay Career Advancement Academy \(EBCAA\), Peralta Community College District](#) Presenter: [President Frank Chong](#) The amount to be approved shall not exceed \$72,000. Any contract approval is subject to negotiation and execution by the Chancellor. The Chancellor's recommends approval. Mr. Yee's Scope of work as senior Consultant to the East Bay Career Advancement Academy: * Review status, progress and challenges of seven sites and district management of East Bay Career Advancement Academy (EBCAA). * Recommend and assist in short term and long term strategies to improve productivity, visibility, and efficiency of CAA model at all sites (Alameda, Berkeley, Laney, Merritt, Contra Costa Community College District), especially during the spring 2009 semester, to meet target of 27 cohorts and 600 students in the 2008-09 academic year. * Connect sites and central administration in responsive and transparent fashion, including:
 - a. Faculty and staff recruitment
 - b. Professional development for faculty and staff

- c. Identification of community partners as integral part of recruitment, case management, and job placement, as required
- d. Establishment of Community Advisory Council to provide advisory strategic planning and feedback to EBCAA
- e. Ongoing support for emerging programs and struggling programs at sites. * Advice to senior staff as to policy directions necessary to incorporate lessons learned into overall plan to ensure sustainability beyond initial grant period. * Assist in implementation of required CalPASS data management protocols for student data tracking * Provide interface with state-wide partners, including other CAA sites statewide, Career Ladders Project, and State Chancellor's office.

[Background Materials](#)

Trustee Handy was concerned about this issue. She feels that contracts are often given to people who are already inside of the District. Other individuals want to try to get into the district, and she wants positions to be opened up so that we find the best people for the positions. She feels that when people retire that the positions should be opened to the public and different people in the District to try to get new things to happen, and to represent different areas of our populations.

MOTION: Motion by Trustee Withrow, second by Trustee Gonzalez Yuen to approve to extend the meeting for 15 minutes.

AYES:	Trustee Handy, Trustee Guillen, Trustee Gulassa, Trustee Hodge, Trustee Riley, Trustee Withrow, and Trustee Gonzalez Yuen.
NOES:	None
ABSTAIN:	None
ABSENT:	None

The motion passed.

- 22. Consider Request Authorization for approval of Independent Contractor Agreement for The Workforce Collaborative (TWC) to provide strategic and operational outreach, referral, and case management support to the East Bay Career Advancement Academy (EBCAA), Peralta Community College District Presenter: President Chong The Workforce Collaborative will sub-contract with community partners to develop a community-based outreach strategy to identify and recruit students and case manager from the community into the colleges as EBCAA students. The amount to be approved shall not exceed \$235,000. Fiscal Agent: State Chancellor's Office, Sacramento. Any contract approval is subject to negotiation and execution by the Chancellor. Chancellor's recommends approval.

[Background Materials](#)

- 23. Consider the 2007-08 East Bay Career Advancement Academy (EBCAA), Peralta Community College District, Memorandum of Understanding Amendment and the Contra Costa Community College District Presenter: President Chong Consider approval of an amendment to the 2007-08 Memorandum of Understanding (MOU) for the Career Advancement Academy (EBCAA), Peralta Community College District and the Contra Costa Community College District. The effective date and period of performance of the MOU was July 1, 2007 through June 30, 2008. The funder, the Chancellor's Office, California Community Colleges, extended the end date of the period of performance of the grant from June 30, 2008 to September 30, 2008. The funding shall not exceed \$200,000. The purpose of this amendment is to retroactively extend the period of performance under the Memorandum of Understanding so that it will correspond with the period of performance set by the Chancellor's Office, California Community Colleges. Any contract approval is subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

- 24. Consider Request for Authorization to approval of Independent Contractor Agreement for Randy Tillery Presenters: Vice Chancellor Wise Allen and President Chong Consider request for authorization to approve the independent contract agreement for Randy Tillery for consulting services for the After School Pathways Implementation Grant at Laney College and future writing grants for the Peralta Community College District. The amount to be approved shall

not exceed \$40,000. Any contract approval is subject to negotiation and execution by the Chancellor. The Chancellor recommends approval. Scope of Work: * Development of job description and partner role descriptions for Coordinator, Counselor, and major outreach and workforce partners. Includes development of scopes of work, MOU formats, and oversight of partner selection process. * Development of advisory and implementation team processes including facilitation of early meetings, development of meeting protocols (agenda formats, minute formats if necessary, decision making protocols). * Supervision and development budget revisions and submission to CCCCO during early phases of project implementation. * Development of project work plan, case management protocols, data tracking/sharing, and other project processes. * Development of brochures and outreach materials for participants and outreach partners. * Development of local evaluation rubric and preliminary implementation with case management partner. * Will be writing more grants in the future

[Background Materials](#)

25. Consider Approval of a Grant Application for Laney College from the Employment Development Department to support the Oakland Green Jobs Corp project Presenter: Vice Chancellor Allen Consider submission of a \$500,000 grant request to the Employment Development Department under the Governor's Gang Reduction Intervention and Prevention Initiative (CalGrip) to supplement the Oakland Green Jobs Corp project led by Laney College. This grant request will permit Laney College to extend its activity on the Oakland Green Jobs Corp in partnership with the City of Oakland, Cypress Mandela Training Center, and Growth Sector. The grant will specifically target at-risk young adults in Oakland for green jobs training and job placement. Source of Funding: Employment Development Department, State of California. Any contract approval is subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

26. Consider Approval of Program and Course Additions, Deactivations and Changes Presenter: Vice Chancellor Allen Included for approval are proposed course additions as recommended by the Council for Instruction, Planning and Development (CIPD). The packet entitled "Curriculum and Instruction Recommendations -November 2008" contains curriculum items approved by the college curriculum committees and CIPD in November 2008. The Chancellor recommends approval.

[Background Materials](#)

27. [Consider Approval of Resolution 08/09-22, Accept Bid and Award Contract, HVAC for ITE Data Processing Center at Peralta Community College District \(Bid No. 08-09/09\), Nick Stavrianopoulos Construction and Painting Presenter: Vice Chancellor Ikharo This project scope includes the HVAC \(heating, ventilation and air conditioning\) and fire suppression system replacement at the District server room located at the District Administrative Complex. This replacement is necessary due to the age of the existing HVAC equipment and its inability to keep the increased data server load cool, and the fact that the existing data system fire suppression system \(halon\) is inadequate. If the halon system were discharged, there would be a risk of serious environmental consequences \(halon depletes stratospheric ozone at a rate of 16 times that of CFC-11, a common refrigerant.\) Production of halon is prohibited in the USA, meaning that if discharged during an incident, halon would be difficult to obtain. The HVAC system replacement will occur during the winter when cooling demand is low. The work will be staged so that one of the existing HVAC units, or its replacement, will be available at all times. Work is expected to begin in early January and is anticipated to take approximately four months. A formal bid was conducted for this project \(08-09/09\), and a bid opening was held on October 17, 2008. Three bids were received, as follows: CONTRACTOR LOCATION TOTAL BID Nick Stavrianopoulos Construction and Painting Danville, CA \\$346,500 American Mechanical Services, Inc. Walnut Creek, CA \\$617,000 American Air Conditioning, Plumbing & Heating San Leandro, CA \\$622,465 The lowest responsible and responsive bid was submitted by Nick Stavrianopoulos Construction and Painting, in the amount of \\$346,500. This company's experience and qualifications were reviewed by the project consultant, KYJ Associates, and in-house staff and deemed acceptable. The company has provided a cost breakdown showing appropriate tasks and subcontractors. This resolution formally accepts the bid and authorizes the contract award to Nick Stavrianopoulos Construction and Painting for the HVAC for ITE Data Processing Center at Peralta Community College District. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1,](#)

[District-Wide Projects, "Heating, air, and ventilation systems." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.](#)

[Background Materials](#)

This item is no longer pulled for discussion.

28. Consider Approval of Resolution 08/09-23, Accept Bid and Award Contract, Upgrades to Classroom P-218, P-206B and "R" Building Restrooms at Merritt College (Bid No. 08-09/07), A. M. Woo Construction, Inc. Presenter: Vice Chancellor Ikharo This project consists of classroom upgrades, new carpet tile flooring, painting walls and doors, installation of suspended acoustical ceiling, installation of light fixtures along with adjustment of electrical wiring in rooms P-218 and P206B. Building "R" work includes replacement of countertops and mirrors in the Men's and Women's restrooms. This restroom work in Building "R" was not part of the building modernization that was completed in 2007. This is one of the previously Board approved Merritt Modernization and Short-Term Projects. A formal bid was conducted for this project (08-09/07), and a bid opening was held on October 7, 2008. Four bids were received, as follows: CONTRACTOR LOCATION TOTAL BID
- A. M. Woo Construction, Inc. Oakland, CA \$40,700 Antrim Engineering and Construction Livermore, CA \$47,000 Eternal Construction, Inc. South San Francisco, CA \$47,600 Bay Construction Co. Oakland, CA \$66,000 The lowest responsible and responsive bid was submitted by A.M. Woo Construction, Inc., in the amount of \$40,700. This resolution formally accepts the bid and authorizes the contract award to A.M. Woo Construction, Inc. for Upgrades to Classroom P-218, P-206B and "R" Building Restrooms at Merritt College. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, Merritt College, "Classroom and facilities repairs and grounds improvements." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

29. Consider Approval of Resolution 08/09-26, Accept Bid and Award Contract, Gateway to College Project at Laney College (Bid No. 08-09/10), Guru Electric and General Construction Presenter: Vice Chancellor Ikharo This project involves interior improvements for classrooms, a meeting/copy space, storage space and four office spaces, including new finishes, power and communications, and lighting conduits for future audio-visual technology, and upgraded fire alarm and mechanical systems, in upper Building A. These spaces will be refurbished to accommodate the Gateway to College Program. This project is one of the previously approved Laney College Phase II Short-Term Projects, funded by Measure A. A formal bid was conducted for this project (08-09/10), and a bid opening was held on November 5, 2008. Eleven bids were received, as follows: CONTRACTOR LOCATION TOTAL BID Guru Electric & General Construction San Jose, CA \$150,000.00 Antrim Engineering & Construction Livermore, CA \$158,000.00 A & E Emaar Albany, CA \$183,950.00 JUV Construction Oakland, CA \$186,700.00 Hung Construction Oakland, CA \$191,000.00 Rodan Builders, Inc. Belmont, CA \$193,500.00 Bay Construction Co. Oakland, CA \$198,000.00 Icenogle Daly City, CA \$200,000.00 PCRB, Inc. Concord, CA \$206,700.00 River View Construction, Inc. Sacramento, CA \$237,775.00 Gold Spring Construction Co. Oakland, CA \$245,853.00 The lowest responsible and responsive bid was submitted by Guru Electric and General Construction, in the amount of \$150,000. This resolution formally accepts the bid and authorizes the contract award to Guru Electric and General Construction for the Gateway to College Project at Laney College. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, Laney College, "Equipment, technology upgrades, and facility and classroom improvements." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

30. Consider Approval of Appropriation of Measure A Funds to Purchase Copiers for Berkeley City College Utilizing a Piggyback Contract with University of California Presenter: Vice Chancellor Ikharo Approval is requested for an appropriation of Measure A funds in the amount of \$58,146.48 to purchase six copiers for Berkeley City College. This is an outright purchase, not a lease. The college has been leasing copiers since 2004, and the lease is expiring. It has

been determined that it is more cost efficient to purchase the copiers rather than leasing. This procurement is a one-time purchase. Maintenance costs for the copiers will be paid from the general fund. Approval is requested to authorize the District to piggyback on the State of California/University of California contract #708/OP/038 to purchase the copiers from Ricoh. This is allowable under Public Contract Code Section 20652. The pricing is as follows: Equipment Price 2 Ricoh mp6000sp Copier/Printer/Scanner \$19,435.20 3 Ricoh mp4000sp Copier/Printer/Scanner \$19,744.80 1 Ricoh mpC6000 color printer \$18,966.48 TOTAL: \$58,146.48 Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, Berkeley City College, "Equipment, technology upgrades, and facility and classrooms improvements." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

31. Consider Approval of Amendment to Agreement for Architectural Services with Gelfand Partners Architects for College of Alameda Modernization and Short-Term Projects Presenter: Vice Chancellor Ikharo Approval is requested for an amendment to the Agreement for Architectural Services with Gelfand Partners Architects for College of Alameda Modernization and Short-Term Projects. The increased fee is to provide additional architectural services for the ADA Restroom Upgrade Project in the not-to-exceed amount of \$5,841. Under the amendment the following additional services will be provided: * Cost Estimation Services for the ADA Restroom Upgrade in the amount of \$3,960. * \$370 - an amount missed on the Board approval of May 20, 2008 - the Board approved \$50,000 and the proposal was \$50,370. * Reimbursable expenses of \$1,511, which is 3% of the total fee (\$50,370) for the Restroom ADA Upgrade Project. This amount was not included in the original Board approval. This will bring their existing contract to a total of \$189,141, which includes the not-to-exceed reimbursable amount of \$1,511. Construction for the Restroom Upgrade Project is targeted for the summer of 2009. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, College of Alameda, "Remodeling and equipping classroom and campus facilities," and "Handicapped accessibility." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

32. Consider Approval to Accept a Proposal from Johnson Controls, Inc. to Furnish and Install a Duress Button at the College of Alameda Office of Admissions & Records Room A228 Presenter: Vice Chancellor Ikharo Approval is requested to accept a proposal from Johnson Controls, Inc. for the amount of \$972 to furnish and install a duress button in the Admissions & Records office at the College of Alameda. During the installation of the Cougar Village portables at the College of Alameda, the Admissions & Records office was equipped with a duress button. However the Admissions & Records office moved into a new portable location, and the College has requested installation of the duress button for the required security. Although the cost is below the bid threshold, Board approval is required because the total of purchase orders issued to Johnson Controls, Inc. exceeds the threshold amount of \$72,400. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, District-Wide Projects, "Security systems, fencing, site improvements." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

33. Consider Approval to Negotiate a Design-Build Contract with Gilbane Building Company for the Laney College Athletic Fields Complex Project Presenter: Vice Chancellor Ikharo Approval is requested for the Chancellor to negotiate a design-build contract with Gilbane Building Company for the Laney College Athletic Fields Complex Project. A formal Request for Proposals (RFP No. 07-08/47) was conducted for this project. Sixteen companies expressed interest and were sent questionnaires, which they were required to complete for evaluation prior to receiving authorization to submit their RFP response. Five responses were received, and all five firms were approved to proceed with their RFP submittals. Three firms submitted RFPs. The submittals were reviewed, and the firms were interviewed by a committee consisting of three representatives from the District and one from Laney College. Following are the three firms and their total scores: FIRM TOTAL SCORE Robert A. Bothman, Inc 356 Gilbane Building Company 324 West Bay Builders 239

[Background Materials](#)

34. Consider Approval to Negotiate an Agreement with Cordoba Corporation to Provide Project Management/Construction Management Services for the Laney College Athletic Fields Complex Project Presenter: Vice Chancellor Ikharo Approval is requested for the Chancellor to negotiate an agreement with Cordoba Corporation to provide project management and construction management services for the Laney College Athletic Fields Complex project. Cordoba Corporation was selected from the previously Board approved short list of project management firms, based on their relevant experience with design-build projects. Cordoba has local presence in Oakland. It is critical for Cordoba to begin services during the contract negotiation period with Gilbane Building Company. Their services will commence under an independent contract. Upon negotiation of the final agreement, Board approval of the fee will be requested at a future meeting. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, Laney College "Athletic Fields, Gym and Facilities." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

35. Consider Approval of Agreement with MSE Group to Provide Construction Management Services for the Building Repairs and Genomics Lab in Building D at Merritt College Presenter: Vice Chancellor Ikharo Approval is requested for an agreement with MSE Group to provide construction management services for the building repairs and Genomics Lab in Building D at Merritt College, in the not-to-exceed amount of \$83,270.00. The scope of services will include monthly reports on project activities, and to bring all items of concern on scope, cost issues, and scheduling to the District's attention. The scope of work will also include, but not limited to, field surveys, development of preliminary scope of work, assist in the design and bidding process for the project, and final close-out. The projected date of completion is December 31, 2009. MSE was selected from the previously Board approved short list of project management firms. This approval will allow MSE Group to provide construction management services for the Building Repairs and Genomics Lab project in Building D at Merritt College. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, Merritt College "Classroom and facilities repairs and grounds improvements." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

36. Consider Approval of Agreement for Architectural Services with Murakami-Nelson Architectural Corporation for the Berkeley City College (Build-Out) Tenant Improvement and Media Center. Presenter: Vice Chancellor Ikharo Approval is requested for an agreement with Murakami-Nelson Architectural Corporation to provide architectural services to investigate, program, and design the tenant improvements on the third, fourth, and fifth floors at Berkeley City College, in the not-to-exceed amount of \$ 484,600.00. As a result of the increase in enrollment at Berkeley City College (a 50% increase in FTES from Spring 2006 to Spring 2008), it is now desirable to complete the build-out of the Berkeley City College facility. This work will include build-out of lecture and laboratory space, faculty offices, and media lab space. The preliminary scope requirements are: * Third Floor - Distance Education Instruction Lab, Faculty Offices, Counseling Offices, Storage. * Fourth Floor - Computer Labs, Large Classrooms, Video Labs, Storage, Lecture Rooms, Art Classrooms. * Fifth Floor - Storage Area, Student Activities Area, Wet and Dry Science Labs. * Produce documents for interior building alterations to comply with adopted codes and ordinances (for a submittal to the Division of the State Architect). * Assist the District in securing DSA approval(s). Murakami-Nelson Architectural Corporation is located in Oakland and was selected from the previously Board approved short list of architectural firms. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, Berkeley City College, "Equipment, technology upgrades and facility and classroom improvement and expansions." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends ratification.

[Background Materials](#)

37. Consider Approval of Agreement for Architectural Services with Fisher Friedman Associates for 860 Atlantic Avenue Facility Tenant Improvements Presenter: Vice Chancellor Ikharo Approval is requested for an agreement with Fisher Friedman Associates to provide architectural services to investigate, program, and design the tenant improvements at 860 Atlantic Avenue, in the not-to-exceed amount of \$106,000.00. The recent District acquisition of the 860 Atlantic Avenue facility will serve as temporary swing space for the College of Alameda Science Program during the construction of Buildings C and D at College of Alameda. This work will include tenant improvements of existing laboratory space, faculty offices, and creating lecture space to serve the College of Alameda Science Program. It should be noted that Buildings C and D are housing other departments such as Liberal Arts, Apparel Design, etc. The preliminary scope requirements for this agreement are: * Produce documents for interior building alterations to comply with adopted codes and ordinances (for a submittal to the Division of the State Architect). * Assist the District in securing DSA approval(s). * Monthly Reports. Fisher Friedman Associates is located in Emeryville and was selected from the previously Board approved short list of architectural firms. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, College of Alameda "Equipment, technology upgrades and facility and classroom improvement and expansions." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

38. Consider Approval of Agreement for DSA Inspector of Record with Jason R. Zalinski for Laney Short Term Projects Presenter: Vice Chancellor Ikharo Approval is requested for an agreement with Jason R. Zalinski to serve as the DSA Inspector of Record for the Laney Modernization and Short-Term Projects, in the not-to-exceed amount of \$114,800. The services to be provided as DSA Inspector of Record include providing DSA Form 5 prior to the beginning of each project, on-site inspections, daily reports during construction for each project, adherence to all DSA regulations for accessibility, fire/life safety and structural compliance. Duties will also include review all contractor pay applications, provide support and verified reports (DSA Form 6) for each completed project, and project closeout. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, Laney College "Equipment, technology upgrades and facility and classroom improvements." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

39. Consider Approval of Resolution 08/09-25, Accept Bid and Award Contract, Fabrication and Installation of District-Wide Interior and Exterior Signage and Wayfinding Signage (Bid No. 08-09/15) Presenter: Vice Chancellor Ikharo This project involves the removal of existing signs and the fabrication and installation of a comprehensive signage and wayfinding program for all District-Wide campuses and support facilities and the District Administrative Complex. The scope of work includes all regulatory and code signage, interior wayfinding signage, and exterior wayfinding signage. A formal bid was conducted for the project (08-09/15) and a bid opening will be held on November 13, 2008. Information on the bid results and the recommended bidder will be available to the Board and the public on the evening of the Board meeting. It is critical to expedite the award and begin the project implementation as soon as possible, as there are legal implications that need to be met by the District. This project will provide campus signage in accordance with the Peralta Community College District Signage Standards Manual. The Signage Standards Manual was developed with the intention of conveying a consistent and unified image that reflects the organization's role in instilling academic excellence throughout its student constituency. The resulting signage is expected to serve as a valuable communication tool that enhances the everyday experience of students, teachers, and visitors alike. Additionally, the standardization of signage according to the manual will reduce the burden on campus facility managers responsible for signage specifications. By streamlining the process, specifying new and replacement signage becomes less time and cost intensive. The manual was created to establish a PCCD system for multiple campus sign installation guidelines. Developed for the variety of site conditions and architectural environments across the Peralta Community College District, the signage manual presents standards that offer a high degree of flexibility while allowing a recognizable Peralta Community College District visual image to emerge at each campus. The signage standards presented in the manual conform to Title III ADA requirements and California Building Code regulations (and their judicial interpretations) as of the publication date of the manual. Funding Source: Measure A, as approved by the voters in Peralta's constituency and authorized under Resolution 05/06-45, Exhibit A-1, District-Wide Projects,

"Communication, bell and fire alarm systems." All Board recommended contracts are subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials](#)

40. Consider Approval of Short-Term Assignments - Hiring of Non-Academic Classified Short-Term Employees on an Emergency Basis Presenter: Director of Human Resources Fong Pursuant to AB500, attached is a report that contains the name, classification, and date of hire, assignment end date, hourly rate, classification, position title, location, background and experience department, and fund source of candidates recommended for short-term assignments in non-academic classified positions. Below are the names and classifications of these candidates. Each candidate's assignment will not exceed the District's established fiscal-year limit of 184 days.
18. [Consider Draft Board Meeting Calendar, 2009 Presenter: Assistant Epstein A draft Board meeting calendar for 2009 is presented for Trustee consideration. The Chancellor recommends approval.](#)

[Background Materials](#)

MOTION: Motion by Trustee Gonzalez Yuen to have two meetings in September, and to remove the November 24th meeting.

Trustee Withrow suggested there just be one meeting in September, and no meeting after Labor Day. Trustee Handy wants to ensure that there is not a Board meeting during the Congressional Black Caucus. It was suggested that the Board cut the agenda and just have business items only on the agenda. The motion dies for a lack of the second. The motion failed for lack of a second.

MOTION: Motion by Trustee Riley, second by Trustee Hodge remove the November 24th meeting date from the calendar.

AYES: Trustee Handy, Trustee Gulassa, Trustee Hodge, Trustee Riley, and Trustee Withrow.
NOES: Trustee Guillen, and Trustee Gonzalez Yuen.
ABSTAIN: None
ABSENT: None

The motion passed.

19. Consider Approval of Resolution 08/09-17, Peralta TV partnership with Bishop Watkins, and the Overcomers with Hope/2nd Chance Program Presenter: Jeffrey Heyman Consider Approval of Resolution 08/09-17 recognizing Peralta TV and Bishop Watkins, and the Overcomers with Hope/2nd Chance Program intent to form a partnership to serve at-risk youth and to provide a broadcast outlet for their video programs. Any contract approval is subject to negotiation and execution by the Chancellor. The Chancellor recommends approval.

[Background Materials 1](#)

[Background Materials 2](#)

20. Consider Request Authorization to apply for funding with United Way Green Tech Training Initiative, and Peralta Community College District, Laney College Presenter: Vice Chancellor Wise Allen Peralta proposes a new Green Tech training initiative that will expand current vocational training programs in construction and environmental control technologies at Laney College to create three new career pathways targeting "Green Collar" jobs in Oakland and surrounding communities. These will include green training pathways in green construction, home and commercial energy audit/retrofit, and green HVACR installation and retrofit. These new training components will result in the implementation of new curricula, new employer and industry driven training relationships, and the development of contextualized job readiness, case management, and basic educational skills training. The amount to be funded shall not exceed \$100,000. Any contract approval is subject to negotiation and execution by the Chancellor. The Chancellor's

recommends approval. Funding Agency: United Way.

[Background Materials](#)

A major football is this Saturday with the Eagles at Laney vs. Feather River, with a BBQ before the game. It will also be broadcast on Peralta TV.

ADJOURNMENT OF THE REGULAR BOARD MEETING

Assistance will be provided to those requiring accommodations for disabilities in compliance with the Americans with Disabilities Act of 1990. Interested persons must request the accommodation at least 48 hours Agenda: Board of Trustees Meeting November 18, 2008 Page 15 of 15

Elihu M. Harris, Chancellor
Secretary to the Board of Trustees
PERALTA COMMUNITY COLLEGE DISTRICT

K. Project Update- February 26, 2013



PERALTA COMMUNITY COLLEGE DISTRICT
Office of General Services

Date: February 26, 2013
To: Chancellor Jose M. Ortiz
From: Dr. Sadiq B. Ikharo, Vice Chancellor for General Services
Subject: Project Update – 860 Atlantic Avenue

Project Background

CALTRAN and the City of Alameda determined the need for an access road to the new proposed development at Alameda Bay Point Landing that is located the west of College of Alameda. This need expressed by the City of Alameda and supported by CALTRAN resulted in acquisition of land swap for property exchange. The 860 Atlantic Avenue property was an acquisition by Catellus Property Developer from Legacy Partners Commercial, LLC. Before the land swap of the 860 Atlantic Avenue property, Buildings 'C' & 'D' at College of Alameda (COA) housed classrooms and labs for the liberal arts and science programs, which occupied about 49,000 assignable square footage area. After the property assessment, the District acquired a 25,000 square footage building (860 Atlantic Avenue) to serve as interim housing for the laboratory rooms at College of Alameda during the drop and replacement of Buildings 'C' and 'D' construction project. This facility was earmarked to also provide interim housing for the Merritt College Genomics Program during the programming and construction of the new Science and Allied Health Building at Merritt College. Buildings 'C' & 'D' will be a dropped and replaced with a brand new facility that will jointly be utilized by Merritt College and COA, that is mutually beneficial and accepted by both colleges.

The property was valued at \$7.5 million at the time of the land swap between the District, City of Alameda, and Catellus Property Developer. The City of Alameda made a commitment to the housing community located west of College of Alameda and Catellus to provide a road access. Catellus purchased the 860 Atlantic Avenue property for the land swap; in exchange the District gave Catellus and the City of Alameda road access (Stargell Avenue) through an easement a portion of the College of Alameda land. Before the land swap, the following property analysis and studies were completed:

- 1) Property Assessment-PCR (Phase 1)
- 2) Executive Summary on the proposed building improvements and deficiencies
- 3) Environmental Assessment
- 4) Seismic Evaluation Report

The District used Measure 'A' bond funds to complete the tenant improvements, which was approved by the Board of Trustees in May 2009. Measure A funding for property acquisition is an acceptable bond use under the language that was approved by the voters of North Alameda County. The District solicited the architectural services of Fisher & Friedman Associates to undertake the design and manage construction for the project. Fisher & Friedman Associates was purchased by NBBJ (project was reassigned to NBBJ) and a contract was awarded for architectural designer services. Cal-Pacific Construction Inc. was awarded a contract for construction work and W.J. Robinson was awarded a contract for



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construction management. Jason Zalinski was awarded a contract to provide DSA certified inspection services.

CONSTRUCTION PROJECT

The 860 Atlantic Avenue building is currently being used as a swing space for various programs for both Merritt and College of Alameda. The property assessment identified that the property required construction modifications in order to be suitable for intended usage. The property was recommended for acquisition because it was in close proximity to the COA, condition of the property as an existing lab facility was a plus. As a result, on April 7, 2009, the Board of Trustees approved a Measure 'A' budget allocation for tenant improvements, in the not-to-exceed amount of \$4,156,500.

Scope of work

Architectural Services: On November 11, 2008, the Board of Trustees (BOT) approved for the District to award a professional contract for architectural services to Fisher & Friedman Associates, later assigned to NBBJ. Under this contract, the consultant provided the following work:

- First Task - The Property Condition Report (PCR) addressed the basic conditions and deficiencies of the building including code problems with the intent to meet the Field Act of 1938 as required by the Division of State Architect (DSA) structural/seismic, mechanical, plumbing, electrical telecommunications, and security and fire suppression systems. This task was completed on 06/24/2008.
- Second Task-They provided professional design services, which included combined schematic design/design development phase, construction documents, bidding, and construction administration. Space planning layouts were completed to determine how best to renovate the 860 Atlantic Avenue property.

NBBJ submitted the architectural contract document (drawing and specifications) to the Division of State Architect (DSA) and they were approved on April 28, 2010. In May 2010, the District solicited bids for the selection of vendor/contractor for this project.

Construction Management: On May 12, 2009, the Board of Trustees approved a contract in the amount of \$176,352 for W.J. Robinson & Associates Inc. Under Amendments No. 1 and No. 2 (approved by the BOT on April 12, 2011 and October 25, 2011), the company continued to provide their services. At the February 12, 2013 meeting, the Board approved Amendment No. 3 for an extension of their construction management services for a period from June 28, 2012 through June 30, 2013. The company's scope of work included, but was not limited to:

- Completed field surveys and developed preliminary scope of work
- Assisted in the design and bidding process for the project, and final close-out with DSA.
- Continued removal and relocation of laboratory furnishing from the main campuses of the College of Alameda and Merritt College



PERALTA COMMUNITY COLLEGE DISTRICT Office of General Services

- Finalized the building systems commissioning
- Coordinated furniture moves for remaining departments

Construction Work: Cal-Pacific Construction Inc. was awarded a \$4.26 million contract to complete the tenant improvements, which was approved by the Board of Trustees on September 28, 2010. For this project, the Board of Trustees approved a Measure 'A' budget allocation at the May 12, 2009 meeting. The demolition and construction work on the existing building started on September 15, 2010. As construction work was on-going, building inspection occurred throughout the construction period.

The following tenant improvements and demolition work were completed on the project:

- The property was renovated as a swing space for the College of Alameda (COA) Science Departments and the Merritt College Genomics Program.
- Existing research and development laboratory rooms around the perimeter of the building were combined into larger classroom-lab spaces for the COA programs.
- Offices were demolished to make room for shared classroom spaces.
- In the center of the building, a corridor, some small spaces and offices were reconfigured into teaching and lab spaces for the Genomics Program.
- New larger restrooms were created and new mechanical and telecom systems were provided. Electrical, lighting and plumbing systems were a hybrid of existing and new.
- Labs and classrooms swing spaces were added for COA "C" & "D" Building.
- Restroom facilities were upgraded to comply with ADA & Title 24 requirements, which included HVAC, fire/life safety, finishes, parking and all ancillary spaces.
- Network equipment and data connection were installed to support electronic devices (i.e., printers, computers, copying machines, security systems, etc.)
- Laboratory furniture and equipment were installed to support the Merritt College Genomics Program.
- Demolition and construction of interior walls and ceilings, and floor upgrades were completed.
- Existing doors were relocated and new doors, frames, and hardware were installed.
- Existing equipment and fixed furniture from COA were relocated and installed.
- The existing parking lot was redesigned to provide five (5) new disabled parking spaces.
- The existing HVAC system was replaced.

Project Completion Date

The project's final completion date was October 31, 2012. The Notice of Completion for the project was officially recorded by the County of Alameda on October 22, 2012. As noted on the Notice of Completion, the contract completion was dated August 31, 2012.

Merritt and COA Move-In, Usage, and Occupancy

Biology Department:

- Biology Department of COA is scheduled to move-in this summer, June 2013. Ten (10) Biology courses will be offered, servicing about 400 students.

Furniture Move-In:

- The furniture was installed in the facility for the Biology Department. Some has yet to be wired electrically. Those items at the College of Alameda Biology Department to



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be relocated to the facility have not yet been moved and will not be until the new furniture installation and wiring are finished.

Chemistry Department:

- The Chemistry Department moved into the building in July 1, 2011.
- Currently, there are five (5) chemistry courses offered (Chem 1A, Chem 1B, Chem 30A, and Chem 50) with 180 students enrolled.
- Course HLTOC 202 meets on Saturdays with 60 students enrolled.

Furniture Move-In:

- Temporary classrooms furniture was provided for the Chemistry Department to start classes until the permanent furniture arrived in early August, 2012. The existing lab furniture was used by the Chemistry Department.

Genomics Program:

- The Program moved into the facility in December 2012. This move is complete with the exception of ongoing supplies necessary for the program (boxes of supplies, etc.).
- The Medical Genomics program will start in Fall 2013 (August).
- During the summer of 2013, BIOSC 061-Sequence Analysis Using MacVector and BioSc 32-Good Laboratory Practices courses will be offered.
- The BioSc 37 course will be offered on February 23rd (Spring 2013) with 20 students enrolled. A second section of BioSc 37 will be offered after Spring Break to develop the Histotech program.
- Two (2) more courses will be offered in summer of 2013 to service 20-40 students for the first cohort course.

Furniture Move-In:

- Furniture deliverables was on time and were setup in classrooms in early August, 2012.

Physics Department:

- The Physics Department is scheduled to move-in this summer, June 2013.

Space Sharing

Currently, Merritt College shares the 860 Atlantic Avenue building with College of Alameda, but they can use the shared lecture classrooms. Although Merritt does not mind sharing their classrooms, they prefer not to share their lecture classrooms with anyone because the lab space and equipment are for a special use and can be damaged as easily.

Security

The District's Police Services patrol this premises four times a day between 8:00 a.m. through 10:00 p.m. The District's Safety Aide Security personnel also provide security coverage between the hours of 8:00 a.m. and 10:00 p.m.

Transportation

The City of Alameda applied for and received a bus transportation grant from the Bay Area Metropolitan Transportation Authority to decrease the amount of carbon dioxide (CO₂) in



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the Posey Tube (environmental sustainability). A bus was hired that is called Estuary Crossing Shuttle. This shuttle started in August of 2011 and it has been renewed on an annual basis. The total ridership as of December 2012 was about 2105 riders. The shuttle runs between the Lake Merritt BART Station across the street from Laney College on Fallon Street to 860 Atlantic Avenue property, via the COA campus and back to the BART Station. The ridership has increased from 167 per day to 436 as of February 6, 2013 (according to Gail Payne of the City of Alameda Transportation division). About 85% to 90% of the riders are COA and Merritt students. It is envisaging that when this facility is fully operational that this number might increase. It is of tremendous value to our students that have come to depend on it.

L. Instructional Area Organization Chart

COLLEGE OF ALAMEDA Office of Instruction Organizational Chart 2014

Kevin Tran
Staff Assistant
Phone: 748-2352

Min Wu
Academic Support Svcs.
Specialist
Phone: 748-2350

Lynn Torres
Curriculum Specialist
Phone: 748-5260

Frank Nguyen
Staff Assistant
Phone: 748-2300

ACCREDITATION
Phone: 748-5259

Tim Karas
Vice President of Instruction
Phone: 748-2301

- Planning, developing, and evaluating the College's instructional programs
- Overall coordination and implementation of the College's curricula
- Hiring of instructional staff and oversight of the Tenure Review Process
- Supervising and directing the activities of the Instructional Deans, the Library, the Learning Resources Center, and the instructional and academic technology staff
- Developing and managing the instructional budget
- Supervising the production of the instructional course schedules, catalog publication and targeting marketing efforts
- Oversee instructional grant-funded projects
- Accreditation Liaison Officer and Educational Master Plan Coordinator
- Coordination of on-line/distance education initiatives
- Center for Applied Learning (CAL)

LEARNING RESOURCE CENTER/TUTORIAL & ASSESSMENT CENTER

Faculty Coordinator: Academic Labs
Trish Nelson

Learning Resource Center

Anna O'Neal – Tutorial Services Assistant
Phone: 748-2315

Caitlin Fischer – Instr. Asst.
Phone: 748-2307

LIBRARY

David Sparks – Head Librarian Phone: 748-2253

Steve Gerstle – Librarian Phone: 748-2398

Jane McKenna – Librarian Phone: 748-2366

Library Technicians

Lili Tavassoli Phone: 748-2251

Caitlin Gilbert Phone: 748-2365

Glenda Gardner Phone: 748-2252

Nikki Lee Phone: 748-2122

Charlene Perlas

Dean, Workforce Development and Applied Sciences

Phone: 748-2318 D203

- Planning, implementing, and coordinating the development of the instructional program of Division I
- Developing and supervising the division's budget
- Participating in the hiring of adjunct faculty and classified staff for the division
- Assigning teaching loads of faculty and staff in the division
- Supervising the design of new curricular offerings
- Initiating the class schedule for the division
- Assisting in the recruitment of students for the college
- Administration of various grants from government and private sources
- Managing CTE (Carl Perkins) funds and ensuring compliance with Federal and State regulations
- Working with Vocational Program Advisory Committees and other industry organizations to gain support for programs and on-going input on curriculum
- Coordination of college collaboration with Alameda Science and Technology Institute (Early College High School) and Oakland Aviation High School

Apparel Design & Merchandising
Alameda Science & Tech. Inst. (ASTI)
Astronomy
ATLAS Program
Auto Body & Paint
Auto Tech
Aviation Maint. Tech.
Aviation High School
Biology
Business
Chemistry
Computer Info Systems
Cooperative Work Experience Ed.
Dental Assisting
Deputy Sector Navigator Program
Diesel Mechanics
Economics
Geography
Geology
Health Education & Occupation
Physics
Trade & Logistics

Vacant

Dean, Academic Pathways and Student Success

Phone: 748-2234 D203

- Planning, implementing, and coordinating the development of the instructional program of Division II
- Developing and supervising the division's budget
- Participating in the hiring of adjunct faculty and classified staff for the division
- Assigning teaching loads of faculty and staff in the division
- Supervising the design of new curricular offerings
- Initiating the class schedule for the division
- Assisting in the recruitment of students for the college

African-American Studies
Anthropology
Art
Asian/Asian-American Studies
Chinese
Communication
Dance
English
English as a Second Language
French
German
History
Humanities
Mathematics
Mexican/Latin-American Studies
Music
Physical Education
Philosophy
Political Science
Psychology
Sociology
Spanish
Vietnamese

M. Biology SLO Report

Report: Summary of the Assessment Cycle Results in : 2013-2014 Assessment Cycle: Assessment Plan and Assessment Findings

Report Generated by Taskstream

Workspace: COURSE ASSESSMENT

Assessment Plan Template: COURSE ASSESSMENT

Report Generated: Thursday, December 18, 2014

Organizational Area

Totals for the selected Participating Areas with access in
 College of Alameda AMS
Full Course Listing

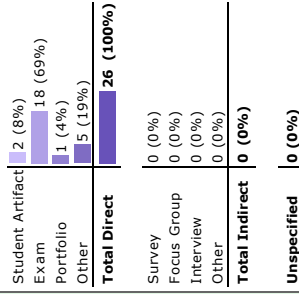
Summary Results

Overall Statistics

- There are 7 Participating Areas with access to this requirement within Full Course Listing
- 79% (22/28) outcomes were included
- 100% (22/22) of outcomes included have at least one measure specified
- 36% (8/22) of outcomes included have measures with findings specified

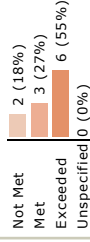
26 Total Measures
 (Includes measures that do not have findings)

Measure Type/Method



11 Total Measures with Findings

Successful Performance Target Met?



College of Alameda AMS » Full Course Listing

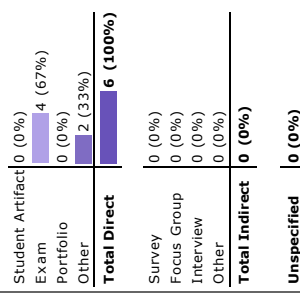
BTOL 10 Introduction to Biology

Overall Statistics

- 100% (4/4) outcomes were included
- 100% (4/4) of outcomes included have at least one measure specified
- 100% (4/4) of outcomes included have measures with findings specified

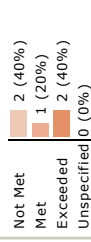
6 Total Measures
 (Includes measures that do not have findings)

Measure Type/Method



5 Total Measures with Findings

Successful Performance Target Met?



Organizational Area	Summary Results																																																								
College of Alameda AMS » Full Course Listing BIOL 11 Principles of Biology	<p>Overall Statistics</p> <ul style="list-style-type: none"> • 33% (1/3) outcomes were included • 100% (1/1) of outcomes included have at least one measure specified • 100% (1/1) of outcomes included have measures with findings specified <table border="1" data-bbox="349 54 560 945"> <thead> <tr> <th colspan="2">3 Total Measures</th> <th colspan="2">3 Total Measures with Findings</th> </tr> <tr> <th colspan="4">(Includes measures that do not have findings)</th> </tr> <tr> <th colspan="4">Measure Type/Method</th> </tr> </thead> <tbody> <tr> <td>Student Artifact</td> <td>0 (0%)</td> <td>Not Met</td> <td>0 (0%)</td> </tr> <tr> <td>Exam</td> <td>3 (100%)</td> <td>Met</td> <td>1 (33%)</td> </tr> <tr> <td>Portfolio</td> <td>0 (0%)</td> <td>Exceeded</td> <td>2 (67%)</td> </tr> <tr> <td>Other</td> <td>0 (0%)</td> <td>Unspecified</td> <td>0 (0%)</td> </tr> <tr> <td>Total Direct</td> <td>3 (100%)</td> <td></td> <td></td> </tr> <tr> <td>Survey</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Focus Group</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Interview</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Total Indirect</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Unspecified</td> <td>0 (0%)</td> <td></td> <td></td> </tr> </tbody> </table> <p><i>0% (0/4) Outcomes were included No Measures have been specified No Findings have been specified</i></p>	3 Total Measures		3 Total Measures with Findings		(Includes measures that do not have findings)				Measure Type/Method				Student Artifact	0 (0%)	Not Met	0 (0%)	Exam	3 (100%)	Met	1 (33%)	Portfolio	0 (0%)	Exceeded	2 (67%)	Other	0 (0%)	Unspecified	0 (0%)	Total Direct	3 (100%)			Survey	0 (0%)			Focus Group	0 (0%)			Interview	0 (0%)			Other	0 (0%)			Total Indirect	0 (0%)			Unspecified	0 (0%)		
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College of Alameda AMS » Full Course Listing BIOL 31 Nutrition	<p>Overall Statistics</p> <ul style="list-style-type: none"> • 100% (5/5) outcomes were included • 100% (5/5) of outcomes included have at least one measure specified • 0% (0/5) of outcomes included have measures with findings specified <table border="1" data-bbox="860 945 876 1365"> <thead> <tr> <th colspan="2">5 Total Measures</th> <th colspan="2">0 Total Measures with Findings</th> </tr> <tr> <th colspan="2">(Includes measures that do not have findings)</th> <th colspan="2">No Findings have been specified</th> </tr> <tr> <th>Measure Type/Method</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>Student Artifact</td> <td>1 (20%)</td> <td></td> <td></td> </tr> <tr> <td>Exam</td> <td>4 (80%)</td> <td></td> <td></td> </tr> <tr> <td>Portfolio</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Total Direct</td> <td>5 (100%)</td> <td></td> <td></td> </tr> <tr> <td>Survey</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Focus Group</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Interview</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Total Indirect</td> <td>0 (0%)</td> <td></td> <td></td> </tr> <tr> <td>Unspecified</td> <td>0 (0%)</td> <td></td> <td></td> </tr> </tbody> </table>	5 Total Measures		0 Total Measures with Findings		(Includes measures that do not have findings)		No Findings have been specified		Measure Type/Method				Student Artifact	1 (20%)			Exam	4 (80%)			Portfolio	0 (0%)			Other	0 (0%)			Total Direct	5 (100%)			Survey	0 (0%)			Focus Group	0 (0%)			Interview	0 (0%)			Other	0 (0%)			Total Indirect	0 (0%)			Unspecified	0 (0%)		
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Organizational Area

College of Alameda AMS » Full Course Listing
BIOL 4 Human Physiology

Summary Results

Overall Statistics

- **100%** (4/4) outcomes were included
- **100%** (4/4) of outcomes included have at least one measure specified
- **0%** (0/4) of outcomes included have measures with findings specified

4 Total Measures
(Includes measures that do not have findings)

Measure Type/Method

Student Artifact	0 (0%)
Exam	3 (75%)
Portfolio	0 (0%)
Other	1 (25%)
Total Direct	4 (100%)
Survey	0 (0%)
Focus Group	0 (0%)
Interview	0 (0%)
Other	0 (0%)
Total Indirect	0 (0%)
Unspecified	0 (0%)

0 Total Measures with Findings

No Findings have been specified

N. Biology PLO Report

2010-2011 Assessment Cycle
Assessment Plan

Mission Statement

The mission of the Biology Department is to prepare students for admission to advanced academic and professional programs, and ultimately for careers in life science

Outcomes and Measures

Understanding of scientific method

Outcome

Students will apply an understanding of the scientific method

Students are able to differentiate scientific hypotheses, derived through the scientific method, from explanations generated through nonscientific methods

▼ **Measure:** Scientific method
Program level; Direct - Exam

Details/Description: In general biology classes, exam questions will address student understanding of the scientific method.

Acceptable Target: 70% of students will be able to list the elements of the scientific method.

Ideal Target: 90% of the students will be able to list the elements of the scientific method.

Implementation Plan (timeline): Students will be tested this (Spring, 2011) semester.

Key/Responsible Personnel: Dr. Reza Majlesi

Taxonomic relationships

Students are able to explain verbally or in writing, differences between 2 domains and differences between the different subgroups within the prokaryotes eukaryotes.

▼ **Measure:** Taxonomy
Program level; Direct - Exam

Details/Description: Students answer taxonomic questions correctly on exams

Acceptable Target: 60% of students answer questions correctly

Ideal Target: 70% of students answer questions correctly

Implementation Plan (timeline): Exams are administered during the spring, 2011 semester

Key/Responsible Personnel: Dr. Reza Majlesi

demonstrate skills necessary to operate equipment

Students demonstrate skills necessary to operate equipment used in biological disciplines, such as compound and dissecting microscopes, analytical balances, sphygmomanometers, and spectrosopes.

Measure: manual skills

Program level: Direct - Exam

Details/Description: students demonstrate skills necessary to operate equipment used in biological disciplines, such as compound and dissecting microscopes, analytical balances, sphygmomanometers, and spectrosopes.

Acceptable Target: 70% of students use equipment correctly and accurately when tested in laboratory

Ideal Target: 100% of students use equipment correctly and accurately when tested in laboratory

Implementation Plan (timeline): Students are tested during the Spring, 2011 semester

Key/Responsible Personnel: Dr. Reza Majlesi

PROGRAM REVISION

No text specified

STATUS REPORT

No text specified

Last Modified: 03/15/2011 11:54:39 AM PST

O. Chemistry SLO Report

Report: Summary of the Assessment Cycle Results in : 2013-2014 Assessment Cycle: Assessment Plan and Assessment Findings

Report Generated by Taskstream

Workspace: COURSE ASSESSMENT

Assessment Plan Template: COURSE ASSESSMENT

Report Generated: Thursday, December 18, 2014

Organizational Area

Totals for the selected Participating Areas with access in
College of Alameda AMS
Full Course Listing

Summary Results

Overall Statistics

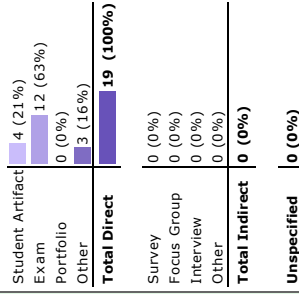
- There are **5 Participating Areas with access to this requirement within Full Course Listing**
- **95% (19/20)** outcomes were included
- **100% (19/19)** of outcomes included have at least one measure specified
- **0% (0/19)** of outcomes included have measures with findings specified

19 Total Measures
(Includes measures that do not have findings)

0 Total Measures with Findings

No Findings have been specified

Measure Type/Method



College of Alameda AMS » Full Course Listing

CHEM 1B General Chemistry

Overall Statistics

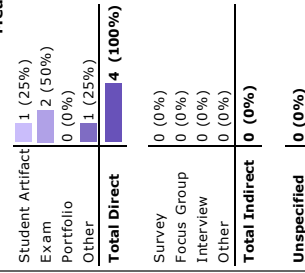
- **100%** (4/4) outcomes were included
- **100%** (4/4) of outcomes included have at least one measure specified
- **0%** (0/4) of outcomes included have measures with findings specified

4 Total Measures
(Includes measures that do not have findings)

0 Total Measures with Findings

No Findings have been specified

Measure Type/Method



Organizational Area	Summary Results																						
College of Alameda AMS » Full Course Listing CHEM 30A Introduction to Organic Chemistry	<p>Overall Statistics</p> <ul style="list-style-type: none"> • 100% (4/4) outcomes were included • 100% (4/4) of outcomes included have at least one measure specified • 0% (0/4) of outcomes included have measures with findings specified <p>4 Total Measures (Includes measures that do not have findings)</p> <p>Measure Type/Method</p> <table border="1"> <tr> <td>Student Artifact</td> <td>1 (25%)</td> </tr> <tr> <td>Exam</td> <td>2 (50%)</td> </tr> <tr> <td>Portfolio</td> <td>0 (0%)</td> </tr> <tr> <td>Other</td> <td>1 (25%)</td> </tr> <tr> <td>Total Direct</td> <td>4 (100%)</td> </tr> <tr> <td>Survey</td> <td>0 (0%)</td> </tr> <tr> <td>Focus Group</td> <td>0 (0%)</td> </tr> <tr> <td>Interview</td> <td>0 (0%)</td> </tr> <tr> <td>Other</td> <td>0 (0%)</td> </tr> <tr> <td>Total Indirect</td> <td>0 (0%)</td> </tr> <tr> <td>Unspecified</td> <td>0 (0%)</td> </tr> </table> <p>0 Total Measures with Findings No Findings have been specified</p>	Student Artifact	1 (25%)	Exam	2 (50%)	Portfolio	0 (0%)	Other	1 (25%)	Total Direct	4 (100%)	Survey	0 (0%)	Focus Group	0 (0%)	Interview	0 (0%)	Other	0 (0%)	Total Indirect	0 (0%)	Unspecified	0 (0%)
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Organizational Area	Summary Results																																				
College of Alameda AMS » Full Course Listing CHEM 50	<p>Overall Statistics</p> <ul style="list-style-type: none"> • 100% (4/4) outcomes were included • 100% (4/4) of outcomes included have at least one measure specified • 0% (0/4) of outcomes included have measures with findings specified <p>4 Total Measures (Includes measures that do not have findings)</p> <table border="1"> <thead> <tr> <th>Measure Type/Method</th> <th>Count</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Student Artifact</td> <td>2</td> <td>(50%)</td> </tr> <tr> <td>Exam</td> <td>2</td> <td>(50%)</td> </tr> <tr> <td>Portfolio</td> <td>0</td> <td>(0%)</td> </tr> <tr> <td>Other</td> <td>0</td> <td>(0%)</td> </tr> <tr> <td>Total Direct</td> <td>4</td> <td>(100%)</td> </tr> <tr> <td>Survey</td> <td>0</td> <td>(0%)</td> </tr> <tr> <td>Focus Group</td> <td>0</td> <td>(0%)</td> </tr> <tr> <td>Interview</td> <td>0</td> <td>(0%)</td> </tr> <tr> <td>Other</td> <td>0</td> <td>(0%)</td> </tr> <tr> <td>Total Indirect</td> <td>0</td> <td>(0%)</td> </tr> <tr> <td>Unspecified</td> <td>0</td> <td>(0%)</td> </tr> </tbody> </table> <p>0 Total Measures with Findings <i>No Findings have been specified</i></p>	Measure Type/Method	Count	Percentage	Student Artifact	2	(50%)	Exam	2	(50%)	Portfolio	0	(0%)	Other	0	(0%)	Total Direct	4	(100%)	Survey	0	(0%)	Focus Group	0	(0%)	Interview	0	(0%)	Other	0	(0%)	Total Indirect	0	(0%)	Unspecified	0	(0%)
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P. Physics SLO Report

Report: Summary of the Assessment Cycle Results in : 2013-2014 Assessment Cycle: Assessment Plan and Assessment Findings

Report Generated by Taskstream

Workspace: COURSE ASSESSMENT

Assessment Plan Template: COURSE ASSESSMENT

Report Generated: Thursday, December 18, 2014

Organizational Area

Totals for the selected Participating Areas with access in
 College of Alameda AMS
Full Course Listing

Summary Results

Overall Statistics

- There are **4 Participating Areas with access to this requirement within Full Course Listing**
- **100% (9/9) outcomes were included**
- **100% (9/9) of outcomes included have at least one measure specified**
- **100% (9/9) of outcomes included have measures with findings specified**

10 Total Measures

(Includes measures that do not have findings)

Measure Type/Method

Student Artifact	3 (30%)
Exam	7 (70%)
Portfolio	0 (0%)
Other	0 (0%)
Total Direct	10 (100%)
Survey	0 (0%)
Focus Group	0 (0%)
Interview	0 (0%)
Other	0 (0%)
Total Indirect	0 (0%)
Unspecified	0 (0%)

9 Total Measures with Findings

Successful Performance Target Met?

Not Met	2 (22%)
Met	5 (56%)
Exceeded	2 (22%)
Unspecified	0 (0%)

College of Alameda AMS » Full Course Listing

PHYS 10 Introduction to Physics

Overall Statistics

- **100% (3/3) outcomes were included**
- **100% (3/3) of outcomes included have at least one measure specified**
- **100% (3/3) of outcomes included have measures with findings specified**

3 Total Measures

(Includes measures that do not have findings)

Measure Type/Method

Student Artifact	1 (33%)
Exam	2 (67%)
Portfolio	0 (0%)
Other	0 (0%)
Total Direct	3 (100%)
Survey	0 (0%)
Focus Group	0 (0%)
Interview	0 (0%)
Other	0 (0%)
Total Indirect	0 (0%)
Unspecified	0 (0%)

3 Total Measures with Findings

Successful Performance Target Met?

Not Met	0 (0%)
Met	1 (33%)
Exceeded	2 (67%)
Unspecified	0 (0%)

Organizational Area	Summary Results																																																				
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Q. Fall 2014 Schedule of Classes



The PERALTA COLLEGES

Berkeley City College • College of Alameda • Laney College • Merritt College

Celebrating our 50TH ANNIVERSARY

★ ★ ★ ★ ★ ESTABLISHED 1964 ★ ★ ★ ★ ★



**Classes Start
August 18th**

**ENROLL ONLINE
WWW.PERALTA.EDU**

**Class Schedule
2014 Fall Semester**

CODE	SEC/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
32	TOYOTA ELECTRICAL & ELECTRONIC SYSTEMS				10 UNITS
A study of basic electrical theory and the function, diagnosis, and repair of modern automotive electrical systems, with emphasis on Toyota vehicles and systems.					
40230	Lab 09:30-12:20 PM	MTWTh	Peterson	B 102	Alameda
	Lec 08:00-09:15	MTWTh		B 201	
* 41	ADVANCED ENGINE REPAIR				10 UNITS
Advanced principles of automotive engine construction, design, and repair					
40084	Lab 02:30-05:20 PM	TWThF	Greenspan	B 102	Alameda
	Lec 12:50-02:30 PM	WThF		B 202	
	Lec 01:30-02:20 PM	T			

AVIATION MAINTENANCE *AMT*
TECHNOLOGY

* 56	BASIC SCIENCE OF AVIATION MAINTENANCE TECHNOLOGY				6.5 UNITS
Introduction to maintenance of both large and small aircraft					
43348	Lec 03:00-04:10 PM	MTWThF	Staff	AIRFC 101	Alameda
* 56L	BASIC SCIENCE OF AVIATION MAINTENANCE TECHNOLOGY				3 UNITS
Introduction to maintenance of both large and small aircraft					
43349	Lab 04:20-06:00 PM	MTWThF	Staff	AIRFC 102B	Alameda
* 58	SURVEY OF AVIATION MAINTENANCE TECHNOLOGY				6.5 UNITS
Survey of aviation maintenance technology					
43592	Lec 06:20-07:30 PM	MTWThF	Staff	AIRFC 101	Alameda
* 58L	SURVEY OF AVIATION MAINTENANCE TECHNOLOGY				3 UNITS
Survey of aviation maintenance technology					
43593	Lab 07:50-09:30 PM	MTWThF	Staff	AIRFC 103	Alameda
* 62	AIRFRAME SYSTEMS I				6.5 UNITS
Introduction to airframe systems					
43588	Lec 03:00-04:10 PM	MTWThF	Ko	AIRFC 102A	Alameda
* 62L	AIRFRAME SYSTEMS I				3 UNITS
Introduction to airframe systems					
43589	Lab 04:20-06:00 PM	MTWThF	Ko	AIRFC 110	Alameda
* 70	THEORY OF POWERPLANTS I				5 UNITS
Basic powerplant theory and systems					
43590	Lec 06:20-07:10 PM	MTWThF	Staff	AIRFC 102A	Alameda
* 70L	THEORY OF POWERPLANTS I				2.5 UNITS
Basic powerplant theory and systems					
43591	Lab 07:20-08:35 PM	MTWThF	Staff	AIRFC 110	Alameda

BANKING AND FINANCE *BNK/F*

* 54	PRINCIPLES OF BANKING				3 UNITS
Comprehensive introduction to the diversified services and operations of the banking industry					
41266	Lec 06:00-08:50 PM	TTh	Beavers	F 205	Laney
08/18/2014 - 10/11/2014					

CODE	SEC/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
* 56	BANK MANAGEMENT				3 UNITS
Introduction to bank management					
41170	Lec 06:00-08:50 PM	TTh	Beavers	F 205	Laney
10/13/2014 - 12/06/2014					

BIOLOGICAL SCIENCES *BIOSC*

* 9	GENERAL HISTOLOGY				5 UNITS
Survey of plant and animal histology with an emphasis on human histology					
44014	Lab 02:00-04:50 PM	T	Fabian	D 247	Merritt
	Lec 06:00-07:50 PM	TTh		D 247	
44015	Lab 01:00-03:50 PM	SU	Giorgi	D 247	Merritt
	Lec 06:00-07:50 PM	TTh		D 247	
* 20	EMERGING TECHNOLOGIES IN MICROSCOPY				1 UNIT
Seminar series					
44016	Lec 09:00-11:50	SSU	Rowning	D 247	Merritt
	Lec 12:30-05:45 PM	SSU			
10/25/2014 - 10/26/2014					
* 35	MICRO-ROBOTICS IN DNA SEQUENCING				5 UNITS
Introduction to use of small-scale instrumentation involved in DNA sequencing					
44183	Lab 09:00-11:50	SU	Macey	FIELD	Merritt
	Lec 09:00-12:50 PM	S		FIELD	
Meets at 860 Atlantic Ave., Alameda					

BIOLOGY *BIOL*

** 1A	GENERAL BIOLOGY				5 UNITS
Introduction to general biology					
PREREQUISITE: CHEM 1A					
40091	Lab 02:00-04:50 PM	MW	Granieri	ATLAN 140	Alameda
	Lec 12:00-01:15 PM	MW		ATLAN 160	
40438	Lab 09:00-11:50	TTh	Blackie	B 201	Laney
	Lec 09:00-09:50	MWF		B 201	
42159	Lab 01:30-04:20 PM	TTh	Curley	D 204	Merritt
	Lec 11:00-12:15 PM	TTh		D 204	
41592	Lab 09:30-12:20 PM	MW	Yang	BCC 522	Berkeley
	Lec 08:00-09:15	MW		BCC 431	
41593	Lab 01:30-04:20 PM	MW	Blitch	BCC 522	Berkeley
	Lec 08:00-09:15	MW		BCC 431	
** 1B	GENERAL BIOLOGY				5 UNITS
Continuation of BIOL 1A					
PREREQUISITE: BIOL 1A					
43622	Lec 11:00-12:15 PM	TTh	Staff	ATLAN 160	Alameda
43623	Lec 01:00-03:50 PM	TTh	Staff	ATLAN 134	Alameda
40440	Lab 01:00-03:50 PM	TTh	Bohorquez	B 201	Laney
	Lec 12:00-12:50 PM	MWF		B 201	
41911	Lab 09:30-12:20 PM	MW	Dehaan	BCC 513	Berkeley
	Lec 08:00-09:15	MW		BCC 424	

FALL

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
** 2	HUMAN ANATOMY				5 UNITS
	Detailed study of human body structure				
	PREREQUISITE: BIOL 10 OR 24				
40442	Lab 09:00-11:50	T	Bailey	B 207	Laney
	Lec 09:00-10:50	MW		B 210	
42161	Lab 11:30-12:45 PM	MW	Downing	D 210	Merritt
	Lec 09:30-11:20	MW		D 210	
40099	Lab 01:00-03:50 PM	W	Steiner	ATLAN 130	Alameda
	Lec 10:00-11:50	MW		ATLAN 130	
40101	Lab 08:00-09:15 PM	MW	Staff	ATLAN 130	Alameda
	Lec 06:00-07:50 PM	MW		ATLAN 130	
42163	Lab 08:00-09:15 PM	TTh	Colston	D 210	Merritt
	Lec 06:00-07:50 PM	TTh		D 210	
42165	Lab 03:30-04:45	TTh	Downing	D 210	Merritt
	Lec 01:30-03:20	TTh		D 210	
44005	Lab 11:00-12:15 PM	TTh	Angeles	D 210	Merritt
	Lec 09:00-10:50	TTh		D 210	
42494	Lab 04:00-05:15 PM	MW	Downing	D 210	Merritt
	Lec 02:00-03:50 PM	MW		D 210	

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
** 3	MICROBIOLOGY				5 UNITS
	Survey of the various microscopic agents of particular importance to humans				
	PREREQUISITE: CHEM 30A OR 1A				
40444	Lab 03:30-04:45 PM	MW	Banerjee	B 203	Laney
	Lec 06:00-07:50 PM	MW		B 210	
40445	Lab 08:00-09:15 PM	MW	Banerjee	B 203	Laney
	Lec 06:00-07:50 PM	MW		B 210	
41595	Lab 03:00-04:20 PM	TTh	Desrochers	BCC 522	Berkeley
	Lec 04:30-06:20 PM	TTh		BCC 431	
41596	Lab 06:40-08:00 PM	TTh	Blitch	BCC 522	Berkeley
	Lec 04:30-06:20 PM	TTh		BCC 431	
42167	Lab 12:30-01:45 PM	MW	Scott	D 205	Merritt
	Lec 10:00-11:50	MW		D 205	
42169	Lab 01:30-02:45 PM	TTh	Scott	D 205	Merritt
	Lec 10:30-12:20 PM	TTh		D 205	
40447	Lab 10:30-11:45	TTh	Banerjee	B 203	Laney
	Lec 01:00-02:50 PM	TTh		B 210	
40448	Lab 03:00-04:15 PM	TTh	Banerjee	B 203	Laney
	Lec 01:00-02:50 PM	TTh		B 210	
42171	Lab 08:00-09:15 PM	MW	Bloom	D 205	Merritt
	Lec 06:00-07:50 PM	MW		D 205	
** 4	HUMAN PHYSIOLOGY				5 UNITS
	Detailed study of human body function				
	PREREQUISITE: CHEM 30A OR 1A				
40450	Lab 09:00-11:50	Th	Bailey	B 207	Laney
	Lec 11:00-12:50 PM	MW		B 210	
40451	Lab 01:00-03:50 PM	T	Bailey	B 207	Laney
	Lec 11:00-12:50 PM	MW		B 210	
42495	Lab 01:00-03:50 PM	M	Rooker	D 204	Merritt
	Lec 10:30-12:20 PM	MW		D 234	
40103	Lab 06:00-08:50 PM	M	Majlesi	ATLAN 140	Alameda
	Lec			HYBRID	
40105	Lab 01:00-03:50 PM	T	Niloufari	ATLAN 140	Alameda
	Lec 10:00-11:50	TTh		ATLAN 140	
42497	Lab 03:00-05:50 PM	M	Giorgi	D 252	Merritt
	Lec 12:30-02:20 PM	MW		P 307	
44006	Lab 03:00-05:50 PM	W	Giorgi	D 252	Merritt
	Lec 12:30-02:20 PM	MW		P 307	
40107	Lab 06:00-08:50 PM	W	Majlesi	ATLAN 140	Alameda
	Lec			HYBRID	
** 10	INTRODUCTION TO BIOLOGY				4 UNITS
	Fundamentals of biology for the non-major				
40093	Lab 09:30-12:20 PM	T	Steiner	ATLAN 134	Alameda
	Lec 08:00-09:15	TTh		ATLAN 134	
43624	Lab 06:00-08:50 PM	Th	Staff	ATLAN 134	Alameda
	Lec			HYBRID	
40453	Lab 06:00-08:50 PM	W	Payne	B 202	Laney
	Lec 06:00-08:50 PM	T		B 210	



Thinking about a major in biotechnology?

Start your associate in science degree at Berkeley City College, then transfer to U.C. or C.S.U.

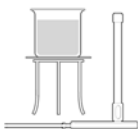
Thousands of new positions continue to open in the Bay Area's bioscience industry in specialties such as research, production, quality control, and laboratory operations. Our Biotechnology Program prepares you for science careers in:

- Agriculture
- Biomedical
- Chemistry
- Criminal Justice
- Environmental Science
- Pharmaceuticals

Advanced bioscience students may participate in public and private sector internships.

For more information, call (510) 981-2887 or email bdesrochers@peralta.edu.

Visit our website
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CODE	SEC/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
40455	Lab 06:00-08:50 PM	Th	Payne	B 202	Laney
	Lec 06:00-08:50 PM	T		B 210	
42173	Lab 10:30-11:45	TTh	Rossi	D 252	Merritt
	Lec 09:00-10:15	TTh		D 252	
41598	Lab 03:00-04:15 PM	MW	Mcpheron	BCC 513	Berkeley
	Lec 01:30-02:45 PM	MW		BCC 513	
41600	Lab 05:00-06:15 PM	TTh	Schmidt	BCC 513	Berkeley
	Lec 06:30-07:45 PM	TTh		BCC 431	
43837	Lab 08:00-09:15 PM	TTh	Schmidt	BCC 513	Berkeley
	Lec 06:30-07:45 PM	TTh		BCC 431	
44008	Lab 01:00-02:15 PM	MW	Jedlicka	D 252	Merritt
	Lec 11:30-12:45 PM	MW		D 209	
40095	Lab 06:00-08:50 PM	T	Staff	ATLAN 134	Alameda
	Lec			HYBRID	
40458	Lab 01:00-03:50 PM	M	Bohorquez	B 202	Laney
	Lec 10:00-11:15	MW		A 239	
40457	Lab 01:00-03:50 PM	W	Bohorquez	B 202	Laney
	Lec 10:00-11:15	MW		A 239	
44010	Lab 07:30-08:45 PM	MW	Owiti	D 204	Merritt
	Lec 06:00-07:15 PM	MW		D 204	
41602	Lab 01:30-02:45 PM	TTh	Dehaan	BCC 513	Berkeley
	Lec 11:00-12:15 PM	TTh		BCC 021	
42090	Lab 03:00-04:15 PM	TTh	Dehaan	BCC 513	Berkeley
	Lec 11:00-12:15 PM	TTh		BCC 021	
40460	Lab 01:00-03:50 PM	T	Blackie	B 202	Laney
	Lec 04:00-05:15 PM	TTh		B 210	
40461	Lab 01:00-03:50 PM	Th	Blackie	B 202	Laney
	Lec 04:00-05:15 PM	TTh		B 210	
** 11	PRINCIPLES OF BIOLOGY				3 UNITS
	Fundamentals of biology for the non-major				
40096	Lec 08:00-09:15	TTh	Steiner	ATLAN 134	Alameda
42877	Lec		Tate	ONLINE	Laney
	<i>Online course. please contact instructor at jtate@peralta.edu.</i>				
42878	Lec		Tate	ONLINE	Laney
	<i>Online course. please contact instructor at jtate@peralta.edu.</i>				
40097	Lec		Majlesi	HYBRID	Alameda
** 13	PRINCIPLES OF ECOLOGY				3 UNITS
	Study of the interaction of humans with the living world around them				
41949	Lec 07:00-09:50 PM	M	Mcpheron	BCC TBA	Berkeley
	<i>Designed for PACE majors; enroll via PACE Office.</i>				
** 13L	PRINCIPLES OF ECOLOGY AND SUSTAINABLE SYSTEMS LAB				1 UNIT
	Field laboratory course which identifies, measures, and tests the sustainable environmental principles discussed in ENVMT 2 or BIOL 13				
	PRE OR COREQUISITE: BIOL 13 OR ENVMT 2				
41950	Lab 08:00-11:50	S	Pasari	BCC 513	Berkeley
	Lab 01:00-04:50 PM	S		BCC 513	
	<i>08/18/2014 - 12/12/2014 Designed for PACE majors, see PACE office to enroll. Lab meets 6 Saturdays, dates: TBA.</i>				

CODE	SEC/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
** 20A	HUMAN ANATOMY AND PHYSIOLOGY				5 UNITS
	Structure and function of the human body				
40463	Lab 03:00-04:15 PM	MW	Allen	B 207	Laney
	Lec 01:00-02:50 PM	MW		B 210	
40464	Lab 04:30-05:45 PM	MW	Allen	B 207	Laney
	Lec 01:00-02:50 PM	MW		B 210	
42175	Lab 01:30-04:20 PM	T	Rauch	D 252	Merritt
	Lec 10:30-12:20 PM	TTh		D 233	
42176	Lab 01:30-04:20 PM	Th	Rauch	D 252	Merritt
	Lec 10:30-12:20 PM	TTh		D 233	
42184	Lab 04:30-07:20 PM	T	Segmen	D 252	Merritt
	Lec 06:00-09:50 PM	T		D 233	
44012	Lab 07:00-09:50 PM	Th	Segmen	D 252	Merritt
	Lec 06:00-09:50 PM	T		D 233	
40466	Lab 08:00-09:15 PM	MW	Polos	B 207	Laney
	Lec 06:00-07:50 PM	MW		B 207	
42642	Lab 11:30-12:45 PM	MW	Ochong	D 204	Merritt
	Lec 09:30-11:20	MW		D 204	
** 20B	HUMAN ANATOMY AND PHYSIOLOGY				5 UNITS
	Structure and function of the human body				
	PREREQUISITE: BIOL 20A				
42178	Lab 09:30-12:20 PM	M	Mccray	D 252	Merritt
	Lec 01:00-02:50 PM	MW		D 233	



Explore Biotech at Laney College



- Pave your path to success in a rapidly growing biotechnology field
- Earn Certificate of Achievement, Certificate of Proficiency, or AS degree
- Learn critical skills for biomanufacturing jobs
- Receive job placement assistance



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CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
42481	Lab 09:30-12:20 PM	W	Mccray	D 252	Merritt
	Lec 01:00-02:50 PM	MW		D 233	
42180	Lab 08:00-09:15 PM	MW	Rowning	D 210	Merritt
	Lec 06:00-07:50 PM	MW		D 221	
** 24	BASIC HUMAN ANATOMY AND PHYSIOLOGY				4 UNITS
	Fundamentals of the structure and function of the human body from an organ system perspective				
40468	Lab 10:30-11:45	MW	Wade	B 207	Laney
	Lec 09:00-10:15	MW		B 207	
42182	Lab 07:30-08:45 PM	MW	Muhlinghaus	D 252	Merritt
	Lec 06:00-07:15 PM	MW		D 252	
40470	Lab 07:30-08:45 PM	TTh	Davis	B 207	Laney
	Lec 06:00-07:15 PM	TTh		B 207	
** 25	HUMAN BIOLOGY				3 UNITS
	Principles of life sciences through study of biological structures and functions of the human organism				
42509	Lec 10:00-11:15	TTh	Staff	P 103	Merritt
** 27	HUMAN SEXUALITY				3 UNITS
	Exploration and analysis of the multifaceted aspects of human sexuality				
40471	Lec 09:30-10:45	MW	Staff	FORUM	Laney
40472	Lec 10:30-11:45	TTh	Wade	B 210	Laney
** 28	HUMAN NUTRITION				3 UNITS
	Principles of nutritional science				
41061	Lec		Polos	ONLINE	Laney
	<i>Online course. Email instructor: jpolos@peralta.edu</i>				
40473	Lec 06:00-08:50 PM	W	Staff	FORUM	Laney
40474	Lec 09:00-10:15	TTh	Payne	B 210	Laney
41171	Lec 09:30-10:45	MW	Katz	E 255	Laney
** 31	NUTRITION				4 UNITS
	Principles of human nutrition				
42935	Lec		Majlesi	ONLINE	Alameda
	<i>Online Course. Contact instructor at rmajlesi@peralta.edu for more information.</i>				
43625	Lec 09:00-02:35 PM	S	Staff	C 112	Alameda
* 32	SCIENTIFIC LITERATURE				2 UNITS
	Comprehension and analytical assessment of technical and scientific writing				
41914	Lec 10:00-11:50	T	Mcpherson	BCC 513	Berkeley
** 34	APPLIED MOLECULAR GENETICS				6 UNITS
	Principles of molecular genetics and evolution				
	PREREQUISITE: BIOL 3 & CHEM 30B				
41987	Lab 06:30-09:20 PM	MW	Celaya	BCC 522	Berkeley
	Lec 04:30-06:20 PM	MW		BCC 052	
* 42	BASIC PATHOPHYSIOLOGY				3 UNITS
	Introduction to the fundamentals of pathophysiology with a focus on physiologic changes and altered functions in the human body resulting from disease processes				
	PREREQUISITE: BIOL 2 OR 20A, AND BIOL 4 OR 20B, AND BIOL 3				
42484	Lec 03:00-05:50 PM	TTh	Scott	D 221	Merritt
	<i>08/19/2014 - 10/16/2014</i>				
42973	Lec 03:00-06:35 PM	TTh	Scott	D 221	Merritt
	<i>10/21/2014 - 12/11/2014</i>				
* 61G	NATURAL HISTORY: MAMMALS OF THE GREATER BAY AREA				2 UNITS
	Survey of Bay Area Mammals				
44184	Lec 10:00-11:50	S	Fabian	FIELD	Merritt
	Lec 12:30-03:45 PM	S		FIELD	
	Lec 06:30-09:20 PM	F		D 165	
	<i>08/29/2014 - 11/22/2014 Meets on campus on the following Fridays: 8/29, 9/5, 11/14, 11/2; Saturday field dates: 8/30, 9/6, 11/15, 11.22,</i>				
* 62M	NATURAL HISTORY OF THE WARNER MOUNTAINS				1.5 UNITS
	Introduction to the geography, climate, geology, flora, fauna, ecological interactions and conservation in the Warner Mountains of Northeastern California.				
44017	Lec 08:00-11:50	SSU	Felzer	FIELD	Merritt
	Lec 09:00-11:50	S		FIELD	
	Lec 01:00-04:50 PM	SSU		FIELD	
	Lec 07:00-09:50 PM	Th		D 165	
	<i>09/04/2014 - 09/21/2014 Meets on campus 9/4,11,18; Regional Parks Botanical Garden on 9/3; Mountains on 9/20-21.</i>				
* 72A	BIOTECH INSTRUMENTATION: GOOD LABORATORY PRACTICES AND SAFE CHEMICAL HANDLING				1 UNIT
	Good Laboratory Practices				
42796	Lab 04:00-06:50 PM	TTh	Bruce	A 237	Laney
	Lec 02:30-03:20 PM	TTh		A 239	
	<i>08/19/2014 - 09/11/2014</i>				
* 72B	BIOTECH INSTRUMENTATION: CLEAN ROOM				1 UNIT
	Clean Room gowning				
42798	Lab 04:00-06:50 PM	TTh	Bruce	A 237	Laney
	Lec 02:30-03:20 PM	TTh		A 239	
	<i>09/16/2014 - 10/09/2014</i>				
* 72C	BIOTECH INSTRUMENTATION: PCR				1 UNIT
	Polymerase Chain reaction techniques				
42800	Lab 04:00-06:50 PM	TTh	Bruce	A 237	Laney
	Lec 02:30-03:20 PM	TTh		A 239	
	<i>10/14/2014 - 11/06/2014</i>				
* 72D	BIOTECH INSTRUMENTATION: QUALITY CONTROL				1 UNIT
	Quality Control Assays				
42802	Lab 03:00-05:50 PM	F	Bruce	A 237	Laney
	Lec 02:00-02:50 PM	F		A 239	
	Lab 04:00-06:50 PM	TTh		A 237	
	Lec 02:30-03:20 PM	TTh		A 239	
	<i>11/13/2014 - 12/04/2014 Friday: 11/14 and 11/21 only.</i>				
* 74	SCIENTIFIC COMMUNICATION				3 UNITS
	Scientific communication in biomanufacturing and biotechnology				
42803	Lec 06:00-08:50 PM	W	Ellefsencrowder	B 201	Laney
** 75	FUNDAMENTALS OF BIOTECHNOLOGY				2 UNITS
	Fundamentals in biotechnology laboratory techniques				
42805	Lab 11:00-01:50 PM	F	Bruce	A 237	Laney
	Lec 10:00-10:50	F		A 237	
41383	Lab 02:00-04:50 PM	W	Bruce	A 237	Laney
	Lec 01:00-01:50 PM	W		A 237	

Information and classes are subject to change, please see online schedule for the latest information.

CODE	SEC/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
204	THE THE SUSTAINABLE BUILT ENVIRONMENT	3 UNITS	Introduction to water and resource conservation, renewable energy and energy efficiency			
42792	Lec 10:00-12:50 PM	F	Seelbach	G 160	Laney	
206	ENERGY EFFICIENCY AND WEATHERIZATION	3.5 UNITS	Introduction to energy efficiency standards and weatherization principles			
44173	Lab 10:00-11:50	M	Seelbach	G 160	Laney	
	Lec 08:00-09:50	M		G 161		
	Lab 12:30-03:20 PM	M		G 160		
207	MATH FOR CONSTRUCTION TRADES	3 UNITS	Mathematics with specific application to Carpentry			
43499	Lec 06:00-08:50 PM	M	Seelbach	G 161	Laney	
210	FOUNDATION AND FORMS CONSTRUCTION	3.5 UNITS	Exploration and application of various foundation types, layout, and construction of concrete forms for actual foundation pour			
40546	Lab 10:00-11:50	Th	Seelbach	G 160	Laney	
	Lec 08:00-09:50	Th		G 160		
	Lab 12:30-03:20 PM	Th		G 160		
211	ELEMENTS OF CONSTRUCTION	3.5 UNITS	Various elements of construction			
40548	Lab 10:00-11:50	W	Correia	G 160	Laney	
	Lec 08:00-09:50	W		G 160		
	Lab 12:30-03:20 PM	W		G 160		
221	ADVANCED ELEMENTS OF CONSTRUCTION	3.5 UNITS	Installation and fabrication of interior and exterior finishes			
40552	Lab 10:00-11:50	W	Correia	G 160	Laney	
	Lec 08:00-09:50	W		G 160		
	Lab 12:30-03:20 PM	W		G 160		
229	ROUGH FRAMING	3-5 UNITS	Various types of framing for floors and walls			
40550	Lab 10:00-11:50	T	Seelbach	G 160	Laney	
	Lec 08:00-09:50	T		G 161		
	Lab 12:30-03:20 PM	T		G 160		
231	ROOF FRAMING	3 UNITS	Basic layout and calculations for roof framing			
40554	Lab 09:30-12:20 PM	W	Klinejohnson	G 161	Laney	
	Lec 07:30-09:20	W		G 161		
232	RESIDENTIAL PLUMBING FOR CARPENTERS	1.5 UNITS	Basic plumbing skills needed by carpenters in construction of new or remodeled homes			
40556	Lab 07:00-08:15 PM	TTh	Staff	G 161	Laney	
	Lec 06:00-06:50 PM	TTh		G 161		
	08/18/2014 - 10/11/2014					

CODE	SEC/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
233	RESIDENTIAL ELECTRICAL FOR CARPENTERS	1.5 UNITS	Basic electrical installation and specifications for wiring a new or remodeled residential home			
40558	Lab 08:00-09:15 PM	TTh	Belanger	G 161	Laney	
	Lec 07:00-07:50 PM	TTh		G 161		
	10/13/2014 - 12/06/2014					
240A	CONSTRUCTION REHABILITATION	2 UNITS	Principles of preparatory demolition for rehabilitation in the remodeling and reconstruction of existing structures			
41073	Lab 09:00-11:50	T	Correia	G 160	Laney	
	Lec 08:00-08:50	T		G 130		

CHEMISTRY CHEM

** 1A	GENERAL CHEMISTRY	5 UNITS
	General principles of chemistry	
	PREREQUISITE: MATH 203 OR 211D	
40560	Lab 01:00-03:50 PM	M Stavis A 236 Laney
	Lec 10:00-11:50	MWF D 200
41076	Lab 01:00-03:50 PM	M Tou A 235 Laney
	Lec 10:00-11:50	MWF D 200
42207	Lab 11:00-01:50 PM	W Staff D 229 Merritt
	Lec 08:00-09:50	MWF D 233
42208	Lab 11:00-01:50 PM	F Staff D 229 Merritt
	Lec 08:00-09:50	MWF D 233
41610	Lab 01:30-04:20 PM	T Omar BCC 521 Berkeley
	Lec 09:00-11:50	TTh BCC 431
41612	Lab 01:30-04:20 PM	Th Singh BCC 521 Berkeley
	Lec 09:00-11:50	TTh BCC 431
40115	Lab 09:00-11:50	F Clifford ATLAN 150 Alameda
	Lec 09:00-11:50	MW ATLAN 110
43626	Lab 01:00-03:50 PM	F Staff ATLAN 150 Alameda
	Lec 09:00-11:50	MW ATLAN 110
40117	Lab 06:00-08:50 PM	T Staff ATLAN 150 Alameda
	Lec 02:45-05:35 PM	TTh ATLAN 110
41917	Lab 01:30-04:20 PM	F Sharma BCC 521 Berkeley
	Lec 01:30-04:20 PM	MW BCC 424
40562	Lab 08:00-09:15 PM	TTh Fossum A 236 Laney
	Lec 06:00-07:50 PM	MTTh A 239
40564	Lab 01:00-02:15 PM	TTh Alscher A 235 Laney
	Lec 09:00-11:50	TTh A 266
41077	Lab 02:30-03:45 PM	TTh Alscher A 235 Laney
	Lec 09:00-11:50	TTh A 266
** 1B	GENERAL CHEMISTRY	5 UNITS
	General principles of chemistry	
	PREREQUISITE: CHEM 1A	
40119	Lab 06:00-08:50 PM	W Olds ATLAN 150 Alameda
	Lec 06:00-08:50 PM	TTh ATLAN 110
40566	Lab 01:00-03:50 PM	W Reyes A 236 Laney
	Lec 10:00-11:50	MWF E 200

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
41411	Lab 01:00-03:50 PM	W	Alscher	A 235	Laney
	Lec 10:00-11:50	MWF		E 200	
41614	Lab 09:00-11:50	W	Omar	BCC 521	Berkeley
	Lec 09:00-11:50	MF		BCC 034	
43503	Lab 08:30-09:45 PM	TTh	Booker	A 235	Laney
	Lec 06:00-07:50 PM	M		A 273	
	Lec 06:30-08:20 PM	TTh		A 273	
** 12A	ORGANIC CHEMISTRY				5 UNITS
	Introduction to structures, nomenclature, properties, and reactions of carbon compounds				
	PREREQUISITE: CHEM 1B				
42210	Lab 11:00-01:50 PM	TTh	Chamberlain	D 236	Merritt
	Lec 09:00-10:15	TTh		D 234	
42211	Lab 02:00-04:50 PM	TTh	Chamberlain	D 236	Merritt
	Lec 09:00-10:15	TTh		D 234	
42815	Lab 01:30-04:20 PM	WF	Gillette	BCC 514	Berkeley
	Lec 11:00-12:15 PM	WF		BCC 518	
40568	Lab 01:00-03:50 PM	MW	Corlett	A 277	Laney
	Lec 10:00-11:15	MW		A 273	
40570	Lab 05:00-07:50 PM	MW	Trego	A 277	Laney
	Lec 05:00-06:15 PM	TTh		A 273	
** 12B	ORGANIC CHEMISTRY				5 UNITS
	Continuation of CHEM 12A				
	PREREQUISITE: CHEM 12A				
40572	Lab 09:00-11:50	TTh	Corlett	A 277	Laney
	Lec 01:00-02:15 PM	TTh		A 233	
43719	Lab 01:30-04:20 PM	TTh	Gillette	BCC 514	Berkeley
	Lec 11:00-12:15 PM	TTh		BCC TBA	
** 30A	INTRODUCTORY GENERAL CHEMISTRY				4 UNITS
	Fundamental principles of general chemistry				
	PREREQUISITE: MATH 201 OR 210D OR MATH 208				
40121	Lab 02:30-05:20 PM	T	Olds	ATLAN 150	Alameda
	Lec 01:00-02:15 PM	TTh		ATLAN 110	
40574	Lab 02:30-03:45 PM	TTh	Small	A 237	Laney
	Lec 01:00-02:15 PM	TTh		A 239	
41078	Lab 02:30-03:45 PM	TTh	Staff	A 236	Laney
	Lec 01:00-02:15 PM	TTh		A 239	
41616	Lab 07:30-08:45 PM	TTh	Sharma	BCC 521	Berkeley
	Lec 06:00-07:15 PM	TTh		BCC 423	
42213	Lab 11:00-01:50 PM	T	Duffey	D 235	Merritt
	Lec 09:30-10:45	TTh		D 228	
42214	Lab 11:00-01:50 PM	Th	Duffey	D 235	Merritt
	Lec 09:30-10:45	TTh		D 228	
42216	Lab 08:00-09:15 PM	TTh	Staff	D 234	Merritt
	Lec 06:30-07:45 PM	TTh		D 234	
41618	Lab 03:00-04:15 PM	MW	Singh	BCC 521	Berkeley
	Lec 01:30-02:45 PM	MW		BCC 423	
42218	Lab 02:00-04:50 PM	M	Schlegel	D 235	Merritt
	Lec 12:00-01:15 PM	MW		D 228	

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
40576	Lab 10:30-11:45	TTh	Guha	A 237	Laney
	Lec 09:00-10:15	TTh		A 239	
40578	Lab 07:30-08:45 PM	MW	Runyon	A 237	Laney
	Lec 06:00-07:15 PM	MW		A 233	
40580	Lab 10:30-11:45	MW	Schaleger	A 235	Laney
	Lec 09:00-10:15	MW		A 233	
41352	Lab 01:30-04:20 PM	S	Tou	A 237	Laney
	Lec 10:00-12:50 PM	S		A 233	
** 30B	INTRODUCTORY ORGANIC AND BIOCHEMISTRY				4 UNITS
	Introduction to basic organic chemistry and biochemistry				
	PREREQUISITE: CHEM 30A				
40123	Lab 10:30-11:45	TTh	Sawicka	ATLAN 150	Alameda
	Lec 09:00-10:15	TTh		ATLAN 110	
40582	Lab 04:00-05:15 PM	TTh	Staff	A 236	Laney
	Lec 02:30-03:45 PM	TTh		A 266	
41353	Lab 04:00-05:15 PM	TTh	Alscher	A 235	Laney
	Lec 02:30-03:45 PM	TTh		A 266	
42220	Lab 10:30-01:20 PM	W	Chamberlain	D 235	Merritt
	Lec 09:00-10:15	MW		D 234	
41620	Lab 07:30-08:45 PM	MW	Pecoraro	BCC 521	Berkeley
	Lec 06:00-07:15 PM	MW		BCC 212	
42222	Lab 08:00-09:15 PM	MW	Stormer	D 235	Merritt
	Lec 06:30-07:45 PM	MW		D 228	
** 50	BEGINNING CHEMISTRY				4 UNITS
	Principles of basic chemistry				
42657	Lab 02:30-05:20 PM	M	Young	ATLAN 150	Alameda
	Lec 01:00-02:15 PM	MW		ATLAN 110	
	08/18/2014 - 12/12/2014				
43056	Lab 02:30-05:20 PM	W	Young	ATLAN 150	Alameda
	Lec 01:00-02:15 PM	MW		ATLAN 110	
	08/18/2014 - 12/12/2014				

CHILD DEVELOPMENT**CHDEV**

* 50	INTRODUCTION TO EARLY CHILDHOOD EDUCATION				3 UNITS
	Survey of the issues and methodology of early childhood education from a diverse perspective which provides a framework for child development/early childhood studies and professional development				
42205	Lec 06:30-09:20 PM	M	Shuaibe	A 100	Merritt
42461	Lec 09:30-12:20 PM	T	Calica	A 100	Merritt
42462	Lec 06:30-09:20 PM	W	Cheng	A 137	Merritt
43110	Lec 06:00-08:50 PM	W	Briffa	FRVAL	Merritt
	<i>Meets at the Unity Council Fruitvale Center 1900 Fruitvale Ave. Oakland, CA. Bilingual in Spanish and English. Students should be concurrently enrolled in ESL class. Bring proof of enrollment the first day of class.</i>				
** 51	CHILD GROWTH AND DEVELOPMENT				3 UNITS
	Prenatal through adolescence typical and atypical human growth and development				
42188	Lec 06:30-09:20 PM	T	Mcdonald	A 139	Merritt
44026	Lec 04:30-05:45 PM	MW	Smithmiller	BCC 034	Berkeley
42189	Lec 09:30-12:20 PM	W	Briffa	A 139	Merritt

Information and classes are subject to change, please see online schedule for the latest information.

See our website: www.Peralta.edu

CODE	SEC/L/HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
42190	Lec 06:30-09:20 PM	Th	Mcdonald	A 139	Merritt
42203	Lec		Briffa	HYBRID	Merritt
	Lec 09:00-11:50	S		A 137	
	<i>Hybrid course. Meets on campus on 5 Saturdays: 8/23, 9/20, 10/18, 11/15, 12/6</i>				
43646	Lec 01:10-04:00 PM	S	Wang	BANANAS	Merritt
	<i>Meets at BANANAS, 5232 Claremont Ave., Oakland. Bilingual in Chinese and English. Students should be enrolled concurrently in ESL class. Bring proof of enrollment on the 1st day of class.</i>				
* 52	OBSERVATION AND ASSESSMENT				3 UNITS
	Overview of current assessment developed to promote a better understanding of children, families, and ECE programs				
	PREREQUISITE: CHDEV 51				
42412	Lec 06:30-09:20 PM	T	Crocker	A 215	Merritt
** 53	THE CHILD, THE FAMILY AND THE COMMUNITY				3 UNITS
	Examination of the typical and atypical developing child in a societal context				
42191	Lec 09:30-12:20 PM	Th	Briffa	A 139	Merritt
42192	Lec 06:30-09:20 PM	W	Kaes	A 139	Merritt
42204	Lec 06:30-09:20 PM	M	Briffa	A 139	Merritt
* 54A	SOCIAL AND EMOTIONAL FOUNDATIONS FOR EARLY LEARNING				3 UNITS
	Healthy social and emotional development of young children as the foundation for children's early learning				
	PREREQUISITE: CHDEV 51				
42193	Lec 06:30-09:20 PM	M	Staff	A 137	Merritt
42194	Lec 06:30-09:20 PM	T	Wang	A 100	Merritt
* 54B	INTRODUCTION TO CURRICULUM				3 UNITS
	Overview of the knowledge and skills related to providing appropriate curriculum and environments for children 0-6				
	PREREQUISITE: CHDEV 51				
42195	Lec 06:30-09:20 PM	W	Olsen	A 100	Merritt
42196	Lec 09:30-12:20 PM	W	Olsen	A 100	Merritt
* 55A	PRACTICUM-FIELD EXPERIENCE				5 UNITS
	Integration of theory and practice in teaching and guidance of young children				
	PREREQUISITE: CHDEV 54A & 54B				
42198	Lab 08:30-12:05 PM	TTh	Olsen	A 106	Merritt
	Lec 12:15-01:20 PM	TTh		A 106	
42200	Lab 02:00-05:35 PM	MW	Mcdonald	A 106	Merritt
	Lec 05:45-06:50 PM	MW		A 106	
* 55B	PRACTICUM-FIELD EXPERIENCE				5 UNITS
	Planning, providing and evaluating program areas				
	PREREQUISITE: CHDEV 55A				
42202	Lab 08:30-12:05 PM	TTh	Olsen	A 106	Merritt
	Lec 12:15-01:20 PM	TTh		A 106	
42545	Lab 02:00-05:35 PM	MW	Mcdonald	A 106	Merritt
	Lec 05:45-06:50 PM	MW		A 106	

CODE	SEC/L/HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
* 58	PRESCHOOL ADMINISTRATION				3 UNITS
	Principles and practices of administration of preschools and/or day care centers				
	PREREQUISITE: CHDEV 54A & 54B				
42464	Lec		Bartelt	HYBRID	Merritt
	Lec 06:30-09:20 PM	Th		A 100	
	<i>Hybrid course. Meets on campus on 4 Thursdays: 8/21, 8/28, 9/18, 12/11.</i>				
* 60	EMERGENT LITERACY AND CHILDREN'S LITERATURE				3 UNITS
	Principles, methods and materials for emergent reading and writing				
	PREREQUISITE: CHDEV 50 OR 51				
42546	Lec 06:30-09:20 PM	Th	Straka	A 214	Merritt



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Visit College of Alameda's Welcome Center in Building A, Room 101

The Welcome Center is a one-stop student services center, equipped with computers where you can enroll in classes and complete your financial aid documents.

Get help from Admissions & Records, Counseling, & Financial Aid staff, as well as Student Ambassadors available in the Center to help you through the registration process.

Welcome Center Hours:

Monday, 8:00 a.m. – 6:30 p.m.
Tuesday – Friday, 8:00 a.m. – 4:30 p.m.

Visit our website
www.alameda.peralta.edu

FALL

CODE	SEC L/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
* 80						
42463	Lec	06:30-09:20 PM	T	Briffa	A 217	Merritt

CHINESE**CHIN**

** 1						
40583	Lec	08:00-10:15	MW	Ying	E 201B	Laney
40584	Lec	06:00-08:15 PM	TTh	Liu	E 201B	Laney
** 2						
41275	Lec	03:30-05:45 PM	TTh	Liu	E 202A	Laney
** 4						
43513	Lec	01:00-03:15 PM	MW	Ding	E 202 B	Laney
** 10A						
43580	Lec	04:00-06:50 PM	TTh	Tam	D 119	Alameda
** 12A						
43581	Lec	07:00-09:50 PM	TTh	Tam	D 119	Alameda
* 25						
41274	Lec	11:00-12:15 PM	MW	Ying	E 255	Laney

COMMUNICATION**COMM**

** 1A						
40130	Lec	01:00-02:15 PM	MW	Campbell	D 205	Alameda
40596	Lec	02:30-03:45 PM	TTh	Smith	G 266	Laney
40597	Lec	03:00-04:15 PM	MW	Smith	G 209	Laney
40131	Lec	06:00-08:50 PM	M	Campbell	D 205	Alameda
40213	Lec			Murphy	HYBRID	Alameda
40598	Lec	01:00-02:15 PM	TTh	Smith	G 246	Laney
40599	Lec	06:00-08:50 PM	M	Brewer	F 255	Laney
42988	Lec	06:00-08:50 PM	W	Brownfox	C 208	Alameda
41222	Lec	06:00-08:50 PM	Th	Brownfox	F 204	Laney

CODE	SEC L/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
** 2A						
42987	Lec	06:00-08:50 PM	W	Campbell	C 213	Alameda

40600	Lec	11:00-12:15 PM	MW	Smith	G 246	Laney
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** 3						

43902	Lec	08:00-09:15	TTh	Woods	BCC 055	Berkeley
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43903	Lec	09:00-11:50	F	Staff	BCC 216	Berkeley
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** 4						

42402	Lec	12:30-03:20 PM	M	Mohammed	A 208	Merritt
** 5						

42661	Lec	01:30-04:20 PM	M	Staff	BCC 053	Berkeley
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43905	Lec	03:30-06:20 PM	T	Leighton	BCC TBA	Berkeley
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40132	Lec	06:00-08:50 PM	T	Campbell	D 222	Alameda
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43906	Lec	06:30-09:20 PM	Th	Leighton	BCC 422	Berkeley
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** 6						

42911	Lec			Thompson	ONLINE	Merritt
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41956	Lec			Leighton	ONLINE	Berkeley
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** 13						

42403	Lec			Thompson	ONLINE	Merritt
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* 19						

43904	Lec	01:30-04:20 PM	Th	Leighton	BCCTBA	Berkeley
** 20						

40133	Lec			Murphy	HYBRID	Alameda
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42229	Lec			Thompson	ONLINE	Merritt
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40133	Lec	03:00-05:50 PM	W		C 105	
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42229	Lec	06:00-08:45 PM	M		A 218	
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** 13						

42229	Lec	06:00-08:45 PM	M		A 218	
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Information and classes are subject to change, please see online schedule for the latest information.

CODE	SEC/L/HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
PHYSICS					
** 2A	GENERAL PHYSICS				5 UNITS
Comprehensive study of general physics					
PREREQUISITE: MATH 50 OR 52C					
44076	Lab 06:00-08:50 PM	W	Staff	D 144	Merritt
	Lec 06:00-09:50 PM	M		D 144	
** 3A	GENERAL PHYSICS				5 UNITS
Comprehensive study of major topics of physics					
PREREQUISITE: MATH 3A					
40957	Lab 10:00-12:50 PM	T	Nicol	A 274	Laney
	Lec 08:00-09:50	TTh		FORUM	
40958	Lab 10:00-12:50 PM	Th	Nicol	A 274	Laney
	Lec 08:00-09:50	TTh		FORUM	
42810	Lab 07:00-09:50 PM	M	Staff	BCC 518	Berkeley
	Lec 05:00-06:50 PM	MW		BCC 431	
43843	Lab 07:00-09:50 PM	W	Staff	BCC 518	Berkeley
	Lec 05:00-06:50 PM	MW		BCC 431	
** 4A	GENERAL PHYSICS WITH CALCULUS				5 UNITS
Comprehensive study of major topics of physics					
PREREQUISITE: MATH 3A					
40195	Lab 01:00-03:50 PM	M	Staff	ATLAN 100	Alameda
	Lec 01:00-02:50 PM	TTh		ATLAN 100	
40960	Lab 09:00-11:50	F	Smith	A 274	Laney
	Lec 07:40-08:55	MWF		A 266	
40961	Lab 12:00-02:50 PM	F	Smith	A 274	Laney
	Lec 07:40-08:55	MWF		A 266	
42812	Lab 01:30-04:20 PM	M	Staff	BCC 518	Berkeley
	Lec 09:30-11:20	MW		BCC 431	
42813	Lab 01:30-04:20 PM	W	Staff	BCC 518	Berkeley
	Lec 09:30-11:20	MW		BCC 431	
42635	Lab 06:00-08:50 PM	M	Duffin	A 274	Laney
	Lec 06:00-07:50 PM	TTh		FORUM	
** 4B	GENERAL PHYSICS WITH CALCULUS				5 UNITS
Comprehensive study of major topics of physics					
PREREQUISITE: PHYS 4A AND MATH 3B					
40266	Lab 09:00-11:50	F	Tsai	ATLAN 100	Alameda
	Lec 10:15-12:05 PM	TTh		ATLAN 100	
42633	Lab 10:30-01:20 PM	M	Mohebi	A 274	Laney
	Lec 08:00-09:50	MW		D 200	
44137	Lab 10:30-01:20 PM	W	Mohebi	A 274	Laney
	Lec 08:00-09:50	MW		D 200	
** 4C	GENERAL PHYSICS WITH CALCULUS				5 UNITS
Comprehensive study of major topics of physics					
PREREQUISITE: PHYS 4B AND MATH 3C					
40964	Lab 02:30-05:20 PM	T	Nicol	A 274	Laney
	Lec 01:00-02:15 PM	T		A 273	
** 10	INTRODUCTION TO PHYSICS				4 UNITS
Elementary introduction to the field of physics					
40267	Lec		Tsai	ONLINE	Alameda
Online Course; Course Information at http://alameda.peralta.edu/physics10					

CODE	SEC/L/HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
40965	Lec 07:00-08:50 PM	TTh	Callera	A 233	Laney
42346	Lec 10:30-12:20 PM	TTh	Combs	D 144	Merritt
42022	Lec 06:00-07:50 PM	TTh	Staff	BCC 518	Berkeley
POLITICAL SCIENCE					
** 1	GOVERNMENT AND POLITICS IN THE UNITED STATES				3 UNITS
Introduction to principles and the political process of national, state, and local government					
40158	Lec 08:30-09:45	MW	Lomax	D 237	Alameda
40966	Lec 09:00-10:15	TTh	Flanery	F 205	Laney
41851	Lec 09:30-12:20 PM	T	Freeman	BCC 053	Berkeley
42347	Lec 09:30-10:45	TTh	Vanspanje	A 211	Merritt
42348	Lec 06:00-08:50 PM	W	Vanspanje	A 211	Merritt
41852	Lec 09:30-12:20 PM	Th	Freeman	BCC 053	Berkeley
40159	Lec 08:30-09:45	TTh	Staff	D 237	Alameda
40160	Lec 09:00-11:50	F	Hurtadoortiz	C 209	Alameda
40967	Lec 01:00-02:15 PM	TTh	Flanery	G 266	Laney
41853	Lec		Freeman	ONLINE	Berkeley
Online class- for information, please visit www.eberkeley.org .					
42416	Lec		Vanspanje	ONLINE	Merritt
Online course. Instructor's email: mvenspanje@peralta.edu . Orientation: Monday, 8/18, 6-8pm, room D178.					
43311	Lec 11:00-12:50 PM	TTh	Vanspanje	A 211	Merritt
09/04/2014 - 12/11/2014					
41902	Lec		Freeman	ONLINE	Berkeley
Online class- for information, please visit www.eberkeley.org .					
40968	Lec 06:00-08:50 PM	T	Flanery	F 255	Laney
40297	Lec 03:00-04:15 PM	TTh	Hurtadoortiz	D 237	Alameda
42978	Lec 06:00-08:50 PM	M	Sweeney	D 237	Alameda
Online Course. Please contact instructor at mmtontague@peralta.edu for more information.					
42747	Lec		Spengeman	HYBRID	Berkeley
	Lec 08:00-09:15	W		BCC 031	
Hybrid section, meets in class Wed, 8:00-9:15am, + 1.5 hrs/wk online.					
42748	Lec 06:30-09:20 PM	M	Spengeman	BCC 424	Berkeley
43594	Lec		Sweeney	ONLINE	Alameda
40969	Lec 01:00-02:15 PM	MW	Staff	F 202	Laney
43595	Lec 01:00-02:15 PM	MW	Lomax	D 237	Alameda
42956	Lec 01:30-04:20 PM	F	Haskell	BCC 055	Berkeley
43596	Lec 09:00-01:15 PM	S	Staff	C 209	Alameda
09/06/2014 - 11/22/2014					
41279	Lec		Staff	ONLINE	Laney
Online course. Contact instructor for information.					
** 2	COMPARATIVE GOVERNMENT				3 UNITS
Comparative analysis in government and politics					
43597	Lec 10:00-11:15 PM	TTh	Brem	C 208	Alameda
41296	Lec 10:30-11:45	TTh	Respini	E 211	Laney
42504	Lec		Vanspanje	ONLINE	Merritt
Online course. Instructor's email: mvenspanje@peralta.edu . Orientation: Tuesday, 8/19, 6-8pm, room D178.					
42032	Lec 01:30-04:20 PM	T	Freeman	BCC TBA	Berkeley

CODE	SEC	L/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
** 3					INTERNATIONAL RELATIONS		3 UNITS
					Nature of relations among nation-states		
40298	Lec				Sweeney	ONLINE	Alameda
					<i>Online Course: Orientation TBA. Contact instructor at jhortiz@peralta.edu for more information.</i>		
42734	Lec	09:00-10:15		TTh	Respini	E 255B	Laney
41854	Lec				Respini	ONLINE	Berkeley
					<i>Online class- for information, please visit www.eberkeley.org</i>		
43933	Lec	09:30-12:20 PM	F		Staff	BCC 055	Berkeley
** 4					POLITICAL THEORY		3 UNITS
					Examination of various theoretical approaches to politics and of basic political problems and proposed solutions		
40161	Lec	06:00-08:50 PM	T		Brem	C 104	Alameda
42954	Lec	09:30-12:20 PM	W		Spengeman	BCC 424	Berkeley
* 6					THE U.S. CONSTITUTION AND CRIMINAL DUE PROCESS		3 UNITS
					Survey and analysis of people's rights under criminal and civil law		
40970	Lec	10:30-11:45		MW	Staff	F 201	Laney
41855	Lec	01:30-04:20 PM		Th	Haskell	BCC 034	Berkeley
* 8					STREET LAW: COMMUNITY AND PRACTICAL LAW		3 UNITS
					Examination and analysis of practical laws as it affects people in daily life.		
44218	Lec	06:00-08:50 PM	W		Alter	D 222	Alameda

CODE	SEC	L/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
* 21					OVERVIEW OF THE CALIFORNIA COURT SYSTEM AND STATE LAW		3 UNITS
					Introduction to functions of the California State Court System		
41531	Lec	06:00-08:50 PM	T		Staff	F 202	Laney
* 35					INTRODUCTION TO COMMUNITY VIOLENCE PREVENTION		3 UNITS
					Introduction to social history and political consciousness around the conditions that create and perpetuate violence in urban communities		
43599	Lec	06:00-08:50 PM	Th		Crain	D 222	Alameda
* 37					TRANSFORMATIVE SOCIAL CHANGE AND FUTURES STUDIES		3 UNITS
					Introduction to alternative futures studies as a field of study		
43598	Lec	09:00-11:50		F	Brem	D 119	Alameda

PORTUGUESE

PORT

* 1A					ELEMENTARY PORTUGUESE		5 UNITS
					Study and practice in understanding, speaking, reading, and writing Portuguese		
43899	Lec	03:30-05:45 PM		MW	Adao	BCC 216	Berkeley

PSYCHOLOGY

PSYCH

* 1A					INTRODUCTION TO GENERAL PSYCHOLOGY		3 UNITS
					Scientific principles of psychology.		
40162	Lec	06:00-08:50 PM	T		Blum	C 211	Alameda
40971	Lec	09:00-10:15		MW	White	F 255	Laney
41856	Lec	11:00-12:15 PM		MW	Kocel	BCC 053	Berkeley
42349	Lec	11:00-12:15 PM		TTh	Powell	P 208	Merritt
42351	Lec				Powell	ONLINE	Merritt
					<i>Online course. Instructor's email: apowell@peralta.edu. Orientation: Tuesday, 8/19, 5-7pm, room P208.</i>		
41857	Lec	09:30-10:45		TTh	Kocel	BCC 014	Berkeley
40972	Lec	01:00-02:15 PM		TTh	Iljas	F 255	Laney
40163	Lec	01:00-02:15 PM		MW	Kinna	C 211	Alameda
40164	Lec	08:30-09:45		TTh	Stamatakis	C 212	Alameda
41219	Lec	02:30-03:45 PM		MW	Staff	F 255	Laney
41858	Lec	01:30-02:45 PM		MW	Kocel	BCC 052	Berkeley
42350	Lec	03:00-05:50 PM		M	Rivas	R 28	Merritt
42352	Lec	06:00-08:50 PM	W		Rivas	R 28	Merritt
41859	Lec	11:00-12:15 PM		TTh	Kocel	BCC 322	Berkeley
40973	Lec	01:00-02:15 PM		MW	Vanputten	F 255	Laney
					<i>This section of Intro Psych requires a computer and Internet access for using online resources to complete assignments.</i>		
40172	Lec	09:00-01:15		S	Stamatakis	D 312	Alameda
					<i>09/06/2014 - 11/22/2014.</i>		
42963	Lec				Petersonguada	ONLINE	Alameda
					<i>online course: Contact instructor at speterson@peralta.edu for more information.</i>		
40974	Lec	06:00-08:50 PM	Th		White	F 255	Laney
42769	Lec	06:30-09:20 PM	M		Staff	BCCTBA	Berkeley
43231	Lec				Staff	ONLINE	Berkeley
					<i>Online class- for information, please visit www.eberkeley.org</i>		

FALL



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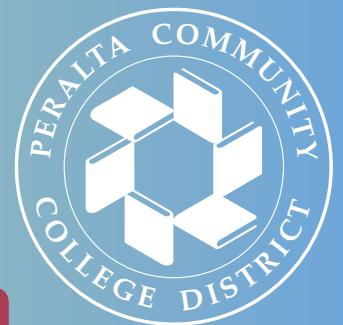
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R. Spring 2015 Schedule of Classes

The Peralta Colleges

SPRING 2015 Class Schedule

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Classes Start **January 20th**

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CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
* 74	THEORY OF POWERPLANTS II				5 UNITS
	Continuation of basic powerplant theory and systems				
23704	Lec 03:00-03:50 PM	MTWThF	Pettyjohn	AIRFC 101	Alameda
* 74L	THEORY OF POWERPLANTS II				2.5 UNITS
	Continuation of basic powerplant theory and systems				
23705	Lab 04:00-05:15 PM	MTWThF	Pettyjohn	AIRFC 102B	Alameda
* 76	ADVANCED POWERPLANTS I				5 UNITS
	Advanced powerplant systems				
23706	Lec 06:00-06:50 PM	MTWThF	Pettyjohn	AIRFC 101	Alameda
* 76L	ADVANCED POWERPLANTS I				3 UNITS
	Advanced powerplant systems				
23707	Lab 07:00-08:35 PM	MTWThF	Pettyjohn	AIRFC 102B	Alameda

BANKING AND FINANCE **BNK/F**

* 54	PRINCIPLES OF BANKING				3 UNITS
	Comprehensive introduction to the diversified services and operations of the banking industry				
20524	Lec		Beavers	ONLINE	Laney
	<i>03/16/2015 - 05/17/2015 Online course. E-mail instructor: dbeavers@peralta.edu visit instructor's webpage at www.peralta.edu/wp/business/faculty/</i>				
* 55	MONEY AND BANKING				3 UNITS
	How money functions in the U.S. and world economies				
20523	Lec		Beavers	ONLINE	Laney
	<i>01/20/2015 - 03/15/2015 Online course. E-mail instructor: dbeavers@peralta.edu visit instructor's webpage at www.peralta.edu/wp/business/faculty/</i>				

BIOLOGICAL SCIENCES **BIOSC**

* 2	THEORY AND PRACTICE OF OPTICAL MICROSCOPY				5 UNITS
	Comprehensive survey of microscopy, from brightfield, epifluorescence, confocal, multiphoton, and scanning and transmission electron microscopes, to the newest technologies				
24106	Lab 02:00-04:50 PM	M	Giorgi	D 247	Merritt
	Lec 06:00-09:50 PM	M		D 247	
24107	Lab 02:00-04:50 PM	W	Giorgi	D 247	Merritt
	Lec 06:00-09:50 PM	M		D 247	
* 5	GOOD LABORATORY PRACTICES I				1 UNIT
	Introduction to good laboratory practices				
	COREQUISITE: BIOSC 2				
24108	Lec 07:00-07:50 PM	W	Rowning	D 247	Merritt
* 6	SURVEY OF BIOTECH INDUSTRY				1 UNIT
	Survey of the local biotech industry				
	COREQUISITE: BIOSC 2				
24109	Lec 08:00-08:50	W	Rowning	D 247	Merritt
* 7	CELL CULTURE				1 UNIT
	Introduction to the basics of mammalian cell culture				
	COREQUISITE: BIOSC 2				
24111	Lab 10:00-11:15	S	Colston	D 247	Merritt
	Lec 06:00-06:30 PM	W		D 247	
24112	Lab 11:30-12:45 PM	S	Colston	D 247	Merritt
	Lec 06:00-06:30 PM	W		D 247	

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
* 8	IMMUNOHISTOCHEMISTRY				1 UNIT
	Principles and protocols in immunohistochemistry and transfection of mammalian cells				
	COREQUISITE: BIOSC 2				
24114	Lab 01:30-02:45 PM	S	Kharazia	D 247	Merritt
	Lec 06:30-07:00 PM	S		D 247	
24115	Lab 03:00-04:15 PM	S	Kharazia	D 247	Merritt
	Lec 06:30-07:00 PM	S		D 247	
* 9	GENERAL HISTOLOGY				5 UNITS
	Survey of plant and animal histology with an emphasis on human histology				
24334	Lab 02:00-04:50 PM	T	Fabian	D 243	Merritt
	Lec 06:00-07:50 PM	TTh		D 247	
24335	Lab 01:00-03:50 PM	SU	Giorgi	D 243	Merritt
	Lec 06:00-07:50 PM	TTh		D 247	
* 10	FLUORESCENCE MICROSCOPY LABORATORY				3 UNITS
	Optical microscopy laboratory for students of Merritt Microscopy Program				
	COREQUISITE: BIOSC 2				
24321	Lab 12:00-09:30 PM	F	Braunschweig	D 247	Merritt
24322	Lab 12:00-09:30 PM	SU	Giorgi	D 247	Merritt
* 11	LAB SAFETY AND ETHICS				0.5 UNIT
	Overview of safety procedures in life sciences labs and ethical considerations in current life sciences research				
	COREQUISITE: BIOSC 2				
24116	Lec 09:00-09:30	W	Rowning	D 247	Merritt
* 20	EMERGING TECHNOLOGIES IN MICROSCOPY				1 UNIT
	Seminar series				
20522	Lec 09:00-11:50	SSU	Grossisoyster	D 224	Merritt
	Lec 12:30-05:45 PM	SSU		D 224	
	<i>04/18/2015 - 04/19/2015</i>				
** 30	GENOMICS THEORY				4 UNITS
	Introduction to genetics and genomic technologies				
	PREREQUISITE: BIOL 10				
23664	Lab 10:00-12:50 PM	S	Macey	FIELD	Merritt
	Lec 06:00-09:35 PM	TTh		FIELD	
	Lab 01:30-04:45 PM	S		FIELD	
	<i>03/21/2015 - 05/23/2015 Meets at 860 Atlantic Ave., Alameda</i>				
24331	Lab 10:00-12:50 PM	SU	Macey	FIELD	Merritt
	Lec 06:00-09:35 PM	TTh		FIELD	
	Lab 01:30-04:45 PM	SU		FIELD	
	<i>03/21/2015 - 05/23/2015 Meets at 860 Atlantic Ave., Alameda</i>				
* 48NK	GRANT WRITING FOR SCIENTIFIC PROPOSALS				3 UNITS
	Introduction to writing successful grant proposals for scientific research				
24332	Lec 09:00-12:15 PM	SSU	Macey	FIELD	Merritt
	Lec 01:00-04:50 PM	SSU		FIELD	
	<i>01/24/2015 - 02/21/2015 Meets at 860 Atlantic Ave., Alameda</i>				

CODE	SEC/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
* 56	ADVANCED HISTOTECHNIQUES			4 UNITS		
Practical applications of stains						
PREREQUISITE: CHEM 1A						
24473	Lab	02:00-04:50 PM	T	Langland	D 228	Merritt
	Lec	06:00-08:50	Th		D 243	
24474	Lab	02:00-04:50 PM	T	Langland	D 228	Merritt
	Lec	06:00-08:50	Th		D 243	

BIOLOGY

**** 1A GENERAL BIOLOGY**

BIOL

5 UNITS

Introduction to general biology
PREREQUISITE: CHEM 1A

23977	Lab	10:00-12:50 PM	TTh	Staff	ATLAN 130	Alameda
	Lec	08:15-09:30	TTh		ATLAN 130	
20469	Lab	01:00-03:50 PM	TTh	Blackie	B 201	Laney
	Lec	12:00-12:50 PM	MWF		B 201	
20435	Lab	02:00-04:50 PM	TTh	Curley	D 204	Merritt
	Lec	12:30-01:45 PM	TTh		D 204	
20416	Lab	09:30-12:20 PM	MW	Yang	BCC 522	Berkeley
	Lec	08:00-09:15	MW		BCC 431	
20417	Lab	01:30-04:20 PM	MW	Blitch	BCC 522	Berkeley
	Lec	08:00-09:15	MW		BCC 431	
23075	Lab	09:30-12:20 PM	TTh	Celaya	BCC 522	Berkeley
	Lec	08:00-09:15	TTh		BCC 513	

**** 1B GENERAL BIOLOGY**

5 UNITS

Continuation of BIOL 1A
PREREQUISITE: BIOL 1A

20467	Lab	01:00-03:50 PM	MW	Granieri	ATLAN 140	Alameda
	Lec	11:00-12:15 PM	MW		ATLAN 160	
20471	Lab	09:00-11:50	TTh	Bohorquez	B 201	Laney
	Lec	09:00-09:50	MWF		B 201	
20473	Lab	01:30-04:20 PM	TTh	Jedlicka	D 252	Merritt
	Lec	11:00-12:15 PM	TTh		D 234	
20428	Lab	09:30-12:20 PM	MW	Dehaan	BCC 513	Berkeley
	Lec	08:00-09:15	MW		BCC 021	
23953	Lab	01:30-04:20 PM	MW	Dehaan	BCC 513	Berkeley
	Lec	08:00-09:15	MW		BCC 021	

**** 2 HUMAN ANATOMY**

5 UNITS

Detailed study of human body structure
PREREQUISITE: BIOL 10 OR 24

20481	Lab	09:00-11:50	T	Bailey	B 207	Laney
	Lec	09:00-10:50	MW		B 210	
20508	Lab	09:00-11:50	Th	Bailey	B 207	Laney
	Lec	09:00-10:50	MW		B 210	
20437	Lab	11:00-12:15 PM	TTh	Downing	D 210	Merritt
	Lec	09:00-10:50	TTh	Steiner	D 210	
20406	Lab	01:00-03:50 PM	W	Fouladiantabriz	ATLAN 130	Alameda
	Lec	10:00-11:50	MW		ATLAN 130	
20408	Lab	08:00-09:15 PM	MW	Mayo	ATLAN 130	Alameda
	Lec	06:00-07:50 PM	MW		ATLAN 130	
20439	Lab	12:00-01:15 PM	MW	Downing	D 210	Merritt
	Lec	10:00-11:50	MW		D 210	
20441	Lab	03:30-04:45 PM	MW	Downing	D 210	Merritt
	Lec	01:30-03:20 PM	MW		D 210	

CODE	SEC/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
23979	Lab	01:30-04:20 PM	S	Bach	ATLAN 130	Alameda
	Lec	09:00-12:50 PM	S		ATLAN 130	
20515	Lab	08:00-09:15 PM	TTh	Fabian	D 210	Merritt
	Lec	06:00-07:50 PM	TTh		D 210	
24097	Lab	08:00-09:15 PM	MW	Fabian	D 204	Merritt
	Lec	06:00-07:50 PM	MW		D 204	
** 3	MICROBIOLOGY			5 UNITS		
Survey of the various microscopic agents of particular importance to humans						
PREREQUISITE: CHEM 30A OR 1A						
20483	Lab	03:30-04:45 PM	MW	Banerjee	B 203	Laney
	Lec	06:00-07:50 PM	MW		B 210	
20484	Lab	08:00-09:15 PM	MW	Banerjee	B 203	Laney
	Lec	06:00-07:50 PM	MW		B 210	
20509	Lab	12:30-01:45 PM	MW	Scott	D 205	Merritt
	Lec	10:00-11:50	MW		D 200	
20512	Lab	08:30-09:45	MW	Scott	D 205	Merritt
	Lec	10:00-11:50	MW		D 200	
20419	Lab	03:00-04:20 PM	TTh	Desrochers	BCC 522	Berkeley
	Lec	04:30-06:20 PM	TTh		BCC 431	
20420	Lab	06:40-07:55 PM	TTh	Desrochers	BCC 522	Berkeley
	Lec	04:30-06:20 PM	TTh		BCC 431	
20510	Lab	01:30-02:45 PM	TTh	Scott	D 205	Merritt
	Lec	10:30-12:20 PM	TTh		P 307	



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SPRING

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
20513	Lab 09:00-10:15	TTh	Scott	D 205	Merritt
	Lec 10:30-12:20 PM	TTh		P 307	
20486	Lab 10:30-11:45	TTh	Banerjee	B 203	Laney
	Lec 01:00-02:50 PM	TTh		B 210	
20487	Lab 03:00-04:15 PM	TTh	Banerjee	B 203	Laney
	Lec 01:00-02:50 PM	TTh		B 210	
20445	Lab 08:00-09:15 PM	MW	Bloom	D 205	Merritt
	Lec 06:00-07:50 PM	MW		D 205	
** 4	HUMAN PHYSIOLOGY				5 UNITS
	Detailed study of human body function				
	PREREQUISITE: CHEM 30A OR 1A				
20489	Lab 01:00-03:50 PM	T	Bailey	B 207	Laney
	Lec 11:00-12:50 PM	MW		B 210	
20521	Lab 01:30-04:20 PM	M	Rooker	D 204	Merritt
	Lec 11:00-12:50 PM	MW		P 307	
22833	Lab 01:30-04:20 PM	W	Rooker	D 204	Merritt
	Lec 11:00-12:50 PM	MW		P 307	
20410	Lab 06:00-08:50 PM	M	Majlesi	ATLAN 140	Alameda
	Lec				HYBRID
20412	Lab 01:00-03:50 PM	Th	Niloufari	ATLAN 140	Alameda
	Lec 10:00-11:50	TTh		ATLAN 140	
20461	Lab 08:30-11:20	Th	Angeles	D 204	Merritt
	Lec 08:30-12:20 PM	T		D 204	

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
20414	Lab 06:30-09:20 PM	W	Majlesi	ATLAN 140	Alameda
	Lec				HYBRID
** 10	INTRODUCTION TO BIOLOGY				4 UNITS
	Fundamentals of biology for the non-major				
20400	Lab 09:30-12:20 PM	T	Ponciano	ATLAN 134	Alameda
	Lec 08:00-09:15	TTh		ATLAN 160	
23974	Lab 09:30-12:20 PM	Th	Staff	ATLAN 134	Alameda
	Lec 08:00-09:15	TTh		ATLAN 160	
20422	Lab 04:30-05:45 PM	MW	Mcpheron	BCC 513	Berkeley
	Lec 03:00-04:15 PM	MW		BCC 431	
23248	Lab 06:00-08:50 PM	W	Balukjian	B 202	Laney
	Lec 06:00-08:50 PM	T		B 210	
23249	Lab 06:00-08:50 PM	Th	Balukjian	B 202	Laney
	Lec 06:00-08:50 PM	T		B 210	
20447	Lab 11:30-12:45 PM	MW	Ochong	D 252	Merritt
	Lec 10:00-11:15	MW		D 233	
23945	Lab 11:00-12:15 PM	TTh	Rossi	D 252	Merritt
	Lec 09:00-10:15	TTh		D 234	
20424	Lab 08:10-09:25 PM	TTh	Schmidt	BCC 513	Berkeley
	Lec 06:40-07:55 PM	T		BCC 021	
23604	Lab 05:00-06:15 PM	TTh	Schmidt	BCC 513	Berkeley
	Lec 06:40-07:55 PM	T		BCC 021	
20402	Lab 06:00-08:50 PM	T	Stavnezer	ATLAN 134	Alameda
	Lec		Majlesi		HYBRID
23975	Lab 06:00-08:50 PM	Th	Stavnezer	ATLAN 134	Alameda
	Lec		Majlesi		HYBRID
20426	Lab 01:30-02:45 PM	TTh	Staff	BCC 513	Berkeley
	Lec 11:00-12:15 PM	TTh		BCC 431	
20433	Lab 03:00-04:15 PM	TTh	Staff	BCC 513	Berkeley
	Lec 11:00-12:15 PM	TTh		BCC 431	
20492	Lab 01:00-03:50 PM	M	Blackie	B 202	Laney
	Lec 10:00-11:15	MW		B 202	
20491	Lab 01:00-03:50 PM	W	Blackie	B 202	Laney
	Lec 10:00-11:15	MW		B 202	
20494	Lab 01:00-03:50 PM	T	Bohorquez	B 202	Laney
	Lec 10:30-11:45	TTh		B 210	
20495	Lab 01:00-03:50 PM	Th	Bohorquez	B 202	Laney
	Lec 10:30-11:45	TTh		B 210	
24157	Lab 01:30-04:20 PM	F	Banihashemi	BCC 513	Berkeley
	Lec 09:30-12:20	F	Banihashemi	BCC 513	
** 11	PRINCIPLES OF BIOLOGY				3 UNITS
	Fundamentals of biology for the non-major				
22965	Lec		Tate	ONLINE	Laney
	<i>Online Course: Contact instructor JTate@peralta.edu</i>				
** 13	PRINCIPLES OF ECOLOGY				3 UNITS
	Study of the interaction of humans with the living world around them				
20431	Lec 07:00-09:50 PM	M	Mcpheron	BCC 513	Berkeley
	<i>Designed for PACE students; enroll via PACE Office.</i>				



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CODE	SEC/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
** 13L	PRINCIPLES OF ECOLOGY AND SUSTAINABLE SYSTEMS LAB				1 UNIT
	Field laboratory course which identifies, measures, and tests the sustainable environmental principles discussed in ENVMT 2 or BIOL 13				
	PRE OR COREQUISITE: BIOL 13 OR ENVMT 2				
20432	Lab08:00-11:50	S	Staff	BCC 522	Berkeley
	Lab01:00-04:50 PM	S		BCC 522	
	<i>01/20/2015 - 05/22/2015 Designed for PACE students, see PACE office to enroll. Lab meets 6 Saturday field trips: 2/28, 3/07, 3/21, 4/11, 4/25 & 5/09/15. NOTE: tentative dates, may change.</i>				
** 20A	HUMAN ANATOMY AND PHYSIOLOGY				5 UNITS
	Structure and function of the human body				
20449	Lab 09:30-10:45	MW	Mccray	D 252	Merritt
	Lec 11:00-12:50 PM	MW		D 144	
20450	Lab 01:30-02:45 PM	MW	Mccray	D 252	Merritt
	Lec 11:00-12:50 PM	MW		D 144	
20457	Lab08:00-09:15 PM	TTh	Colston	D 204	Merritt
	Lec 06:00-07:50 PM	TTh		D 204	
** 20B	HUMAN ANATOMY AND PHYSIOLOGY				5 UNITS
	Structure and function of the human body				
	PREREQUISITE: BIOL 20A				
20504	Lab 03:00-04:15 PM	MW	Allen	B 207	Laney
	Lec 01:00-02:50 PM	MW		B 210	
20452	Lab 01:30-04:20 PM	T	Roghani	D 210	Merritt
	Lec 10:30-12:20 PM	TTh		D 233	
20459	Lab 01:30-04:20 PM	Th	Roghani	D 210	Merritt
	Lec 10:30-12:20 PM	TTh		D 233	
20511	Lab06:00-08:50 PM	T	Segmen	D 252	Merritt
	Lec 06:00-09:50 PM	M		D 200	
20516	Lab06:00-08:50 PM	Th	Segmen	D 252	Merritt
	Lec 06:00-09:50 PM	M		D 200	
20506	Lab08:00-09:15 PM	MW	Polos	B 207	Laney
	Lec 06:00-07:50 PM	MW		B 207	
** 24	BASIC HUMAN ANATOMY AND PHYSIOLOGY				4 UNITS
	Fundamentals of the structure and function of the human body from an organ system perspective				
20497	Lab 10:30-11:45	MW	Wade	B 207	Laney
	Lec 09:00-10:15	MW		B 207	
20455	Lab07:30-08:45 PM	MW	Muhlinghaus	D 252	Merritt
	Lec 06:00-07:15 PM	MW		D 252	
23947	Lab 09:00-10:15	MW	Cottonham	D 204	Merritt
	Lec 10:30-11:45	MW		D 228	
20499	Lab07:30-08:45 PM	TTh	Davis	B 207	Laney
	Lec 06:00-07:15 PM	TTh		B 207	
** 25	HUMAN BIOLOGY				3 UNITS
	Principles of life sciences through study of biological structures and functions of the human organism				
20462	Lec 01:30-02:45 PM	MW	Ochong	D 144	Merritt
20474	Lec 04:30-05:45 PM	MW	Mcpheron	BCC 033	Berkeley

CODE	SEC/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
** 27	HUMAN SEXUALITY				3 UNITS
	Exploration and analysis of the multifaceted aspects of human sexuality				
20517	Lec 10:30-11:45	TTh	Wade	E 255	Laney
23250	Lec 10:30-11:45	MW	Davis	E 255	Laney
** 28	HUMAN NUTRITION				3 UNITS
	Principles of nutritional science				
20500	Lec 06:00-08:50 PM	W	Katz	FORUM	Laney
20518	Lec 09:00-10:15	TTh	Nagami	B 210	Laney
** 31	NUTRITION				4 UNITS
	Principles of human nutrition				
20463	Lec		Majlesi	ONLINE	Alameda
	<i>Online Course. Contact instructor at rmajlesi@peralta.edu for more information.</i>				
23493	Lec 09:00-12:50 PM	S	Staff	C 112	Alameda
** 33	APPLIED IMMUNOLOGY				6 UNITS
	Specific and non-specific reactions in immunity				
	PREREQUISITE: BIOL 3 & CHEM 30B				
20476	Lab06:30-09:20 PM	MW	Desrochers	BCC 522	Berkeley
	Lec 04:30-06:20 PM	MW		BCC 518	
* 40	INFECTIOUS DISEASES				2 UNITS
	Introduction to infectious diseases				
23708	Lec 06:00-07:50 PM	T	Banerjee	A 273	Laney
* 41	AIDS: FACTS AND ISSUES				1 UNIT
	Introduction to Aids				
20519	Lec 06:00-07:50 PM	T	Banerjee	A 273	Laney
	<i>02/17/2015 - 04/07/2015</i>				
* 42	BASIC PATHOPHYSIOLOGY				3 UNITS
	Introduction to the fundamentals of pathophysiology with a focus on physiologic changes and altered functions in the human body resulting from disease processes				
	PREREQUISITE: BIOL 2 OR 20A, AND BIOL 4 OR 20B, AND BIOL 3				
20460	Lec 02:15-05:20 PM	MW	Scott	D 200	Merritt
	<i>01/21/2015 - 03/18/2015</i>				
20464	Lec 02:15-05:20 PM	MW	Scott	D 200	Merritt
	<i>03/23/2015 - 05/20/2015</i>				
* 62E	NATURAL HISTORY OF THE SUTTER BUTTES				1.5 UNITS
	Introduction to the natural history of the Sutter Buttes				
23965	Lec 08:00-11:50	SU	Felzer	FIELD	Merritt
	Lec 08:00-11:50	SU		FIELD	
	Lec 09:00-11:50	S		FIELD	
	Lec 12:30-04:20 PM	SU		FIELD	
	Lec 12:30-04:20 PM	SU		FIELD	
	Lec 07:00-09:50 PM	Th		D 165	
	<i>02/05/2015 - 05/03/2015</i>				
* 64H	NATURAL HISTORY OF DON EDWARDS SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE				0.5 UNIT
	Salt water marshlands of the Don Edwards San Francisco Bay National Wildlife Refuge				
24319	Lec 10:00-02:50 PM	S	Fabian	FIELD	Merritt
	Lec 06:00-08:50 PM	F		D 165	
	<i>01/30/2015 - 06/30/2015</i>				

CODE	SEC/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE	
221		ADVANCED ELEMENTS OF CONSTRUCTION				3.5 UNITS	
		Installation and fabrication of interior and exterior finishes					
20682	Lab	10:00-12:15 PM	W	Correia	G 160	Laney	
	Lec	08:00-09:50	W		G 160		
	Lab	01:00-03:15 PM	W		G 160		
229		ROUGH FRAMING				3.5 UNITS	
		Various types of framing for floors and walls					
24160	Lab	09:00-12:15 PM	W	Seelbach	G 160	Laney	
	Lec	08:00-08:50	W		G 160		
	Lab	01:00-03:15 PM	W		G 160		
230		STAIR BUILDING AND FRAMING SQUARE TECHNOLOGY				2 UNITS	
		Principles of stair building and framing					
		PR:CARP 207					
20687	Lab	09:00-09:50	W	Klinejohnson	G 160	Laney	
	Lec	08:00-08:50	W		G 160		
	Lab	10:00-11:50	W		G 160		
232		RESIDENTIAL PLUMBING FOR CARPENTERS				1.5 UNITS	
		Basic plumbing skills needed by carpenters in construction of new or remodeled homes					
20684	Lab	07:00-08:15 PM	TTh	Belanger	G 160	Laney	
	Lec	06:00-06:50 PM	TTh		G 160		
		03/16/2015 - 05/17/2015					
233		RESIDENTIAL ELECTRICAL FOR CARPENTERS				1.5 UNITS	
		Basic electrical installation and specifications for wiring a new or remodeled residential home					
20691	Lab	07:00-08:15 PM	TTh	Belanger	G 160	Laney	
	Lec	06:00-06:50 PM	TTh		G 160		
		01/20/2015 - 03/15/2015					
240B		CONSTRUCTION REHABILITATION				2 UNITS	
		Continuation of CARP 240A					
23823	Lab	09:00-11:50	Th	Correia	G 160	Laney	
	Lec	08:00-08:50	Th		G 160		
251A		INTRODUCTION TO THE SKILLED TRADES I				3 UNITS	
		Introduction to the skilled trades as it relates to residential construction and related fields					
20696	Lab	02:30-05:20 PM	F	Klinejohnson	G 151	Laney	
	Lec	12:30-02:20 PM	F		G 240		
255		SURVEY COURSE FOR THE SKILLED TRADES				0.5 UNIT	
		Introduction to the skilled trades Carpentry					
23660	Lab	01:30-04:45 PM	W	Shurtz	G 160	Laney	
		01/20/2015 - 03/11/2015					

CHEMISTRY

** 1A		GENERAL CHEMISTRY				5 UNITS	
		General principles of chemistry					
		PREREQUISITE: MATH 203 OR 211D					
20746	Lab	01:00-02:15 PM	TTh	Alscher	A 236	Laney	
	Lec	09:00-11:50	TTh		A 239		

CODE	SEC/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE	
20763	Lab	02:30-03:45 PM	TTh	Alscher	A 236	Laney	
	Lec	09:00-11:50	TTh		A 239		
20733	Lab	01:30-04:20 PM	T	Omar	BCC 521	Berkeley	
	Lec	08:00-10:50	TTh		BCC 431		
20735	Lab	01:30-04:20 PM	Th	Singh	BCC 521	Berkeley	
	Lec	08:00-10:50	TTh		BCC 431		
22984	Lab	01:00-03:50 PM	F	Olds	ATLAN 150	Alameda	
	Lec	09:00-11:50	MW		ATLAN 110		
20731	Lab	09:00-11:50	F	Olds	ATLAN 150	Alameda	
	Lec	09:00-11:50	MW		ATLAN 110		
20724	Lab	06:00-08:50 PM	T	Eames	ATLAN 150	Alameda	
	Lec	02:45-05:35 PM	TTh		ATLAN 110		
24029	Lab	06:00-08:50 PM	Th	Staff	ATLAN 150	Alameda	
	Lec	02:45-05:35 PM	TTh		ATLAN 110		
20744	Lab	01:30-04:20 PM	F	Sharma	BCC 521	Berkeley	
	Lec	03:00-05:50 PM	MW		BCC 015		
20748	Lab	01:00-03:50 PM	M	Reyes	A 236	Laney	
	Lec	10:00-11:50	MWF		D 200		
20749	Lab	01:00-03:50 PM	M	Tou	A 237	Laney	
	Lec	10:00-11:50	MWF		D 200		
24135	Lab	09:00-11:50	M	Staff	BCC 521	Berkeley	
	Lec	08:00-10:50	WF		BCC 518		
20791	Lab	08:00-09:15 PM	MW	Dehghani	A 236	Laney	
	Lec	06:00-07:50 PM	MWTh		A 273		
** 1B		GENERAL CHEMISTRY				5 UNITS	
		General principles of chemistry					
		PREREQUISITE: CHEM 1A					
20726	Lab	06:00-08:50 PM	W	Olds	ATLAN 150	Alameda	
	Lec	06:00-08:50 PM	TTh		ATLAN 110		
20751	Lab	01:00-03:50 PM	W	Stavis	A 236	Laney	
	Lec	10:00-11:50	MWF		FORUM		
20789	Lab	01:00-03:50 PM	W	Sawicka	A 235	Laney	
	Lec	10:00-11:50	MWF		FORUM		
20781	Lab	11:00-01:50 PM	F	Lipson	D 229	Merritt	
	Lec	08:00-09:50	MWF		D 200		
20785	Lab	11:00-01:50 PM	W	Lipson	D 229	Merritt	
	Lec	08:00-09:50	MWF		D 200		
20737	Lab	09:00-11:50	W	Omar	BCC 521	Berkeley	
	Lec	09:00-11:50	MF		BCC 033		
20753	Lab	08:00-09:15 PM	TTh	Fossum	A 236	Laney	
	Lec	06:00-07:50 PM	MTTh		A 233		
** 12A		ORGANIC CHEMISTRY				5 UNITS	
		Introduction to structures, nomenclature, properties, and reactions of carbon compounds					
		PREREQUISITE: CHEM 1B					
20768	Lab	09:00-11:50	TTh	Corlett	A 277	Laney	
	Lec	01:00-02:15 PM	TTh		A 239		
23071	Lab	01:30-04:20 PM	MW	Gillette	BCC 514	Berkeley	
	Lec	11:00-12:15 PM	MW		BCC 518		

CODE	SEC L/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
** 12B	ORGANIC CHEMISTRY				5 UNITS	
	Continuation of CHEM 12A					
	PREREQUISITE: CHEM 12A					
20756	Lab 01:00-03:50 PM	MW	Corlett	A 277	Laney	
	Lec 10:00-11:15	MW		A 239		
20783	Lab 11:00-01:50 PM	TTh	Chamberlain	D 236	Merritt	
	Lec 09:00-10:15	TTh		D 200		
22831	Lab 02:00-04:50 PM	TTh	Chamberlain	D 236	Merritt	
	Lec 09:00-10:15	TTh		D 200		
23073	Lab 01:30-04:20 PM	TTh	Gillette	BCC 514	Berkeley	
	Lec 11:00-12:15 PM	TTh		BCC 015		
20765	Lab 05:00-07:50 PM	MW	Trego	A 277	Laney	
	Lec 05:00-06:15 PM	TTh		A 239		
** 30A	INTRODUCTORY GENERAL CHEMISTRY				4 UNITS	
	Fundamental principles of general chemistry					
	PREREQUISITE: MATH 201 OR 210D OR MATH 208					
20773	Lab 11:00-01:50 PM	T	Duffey	D 235	Merritt	
	Lec 09:30-10:45	TTh		D 228		
20774	Lab 11:00-01:50 PM	Th	Duffey	D 235	Merritt	
	Lec 09:30-10:45	TTh		D 228		
22983	Lab 02:30-05:20 PM	T	Clifford	ATLAN 150	Alameda	
	Lec 01:00-02:15 PM	TTh		ATLAN 110		
20728	Lab 02:30-05:20 PM	Th	Clifford	ATLAN 150	Alameda	
	Lec 01:00-02:15 PM	TTh		ATLAN 110		
20771	Lab 10:30-11:45	TTh	Guha	A 236	Laney	
	Lec 09:00-10:15	TTh		FORUM		
20739	Lab 07:30-08:45 PM	TTh	Sharma	BCC 521	Berkeley	
	Lec 06:00-07:15 PM	TTh		BCC 423		
20741	Lab 03:00-04:15 PM	MW	Singh	BCC 521	Berkeley	
	Lec 01:30-02:45 PM	MW		BCC TBA		
23701	Lab 10:30-11:45	MW	Schaleger	A 237	Laney	
	Lec 09:00-10:15	MW		A 273		
20776	Lab 04:00-05:15 PM	TTh	Staff	D 235	Merritt	
	Lec 05:30-06:45 PM	TTh		D 228		
20784	Lab 07:00-08:15 PM	TTh	Staff	D 235	Merritt	
	Lec 05:30-06:45 PM	TTh		D 228		
20787	Lab 02:00-04:50 PM	M	Storner	D 235	Merritt	
	Lec 12:00-01:15 PM	MW		D 228		
20788	Lab 02:00-04:50 PM	W	Storner	D 235	Merritt	
	Lec 12:00-01:15 PM	MW		D 228		
20760	Lab 07:30-08:45 PM	MW	Runyon	A 237	Laney	
	Lec 06:00-07:15 PM	MW		A 239		
20770	Lab 04:00-05:15 PM	MW	Staff	A 235	Laney	
	Lec 02:30-03:45 PM	MW		A 239		
24343	Lab 04:00-05:15 PM	MW	Alscher	A 236	Laney	
	Lec 02:30-03:45 PM	MW		A 239		
23255	Lab 01:30-04:20 PM	S	Tou	A 237	Laney	
	Lec 10:00-12:50 PM	S		A 233		

CODE	SEC L/L	HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
** 30B	INTRODUCTORY ORGANIC AND BIOCHEMISTRY				4 UNITS	
	Introduction to basic organic chemistry and biochemistry					
	PREREQUISITE: CHEM 30A					
24031	Lab 10:30-11:45	TTh	Sawicka	ATLAN 150	Alameda	
	Lec 09:00-10:15	TTh		ATLAN 110		
20762	Lab 04:00-05:15 PM	TTh	Alscher	A 235	Laney	
	Lec 02:30-03:45 PM	TTh		A 233		
20778	Lab 10:30-01:20 PM	M	Chamberlain	D 235	Merritt	
	Lec 09:00-10:15	MW		D 234		
20779	Lab 10:30-01:20 PM	W	Chamberlain	D 235	Merritt	
	Lec 09:00-10:15	MW		D 234		
20743	Lab 07:30-08:45 PM	MW	Pecoraro	BCC 521	Berkeley	
	Lec 06:00-07:15 PM	MW		BCC 421		
20767	Lab 07:30-08:45 PM	TTh	Anderson	A 235	Laney	
	Lec 06:00-07:15 PM	TTh		E 200		
	<i>(Recommended for Biotech students)</i>					
** 50	BEGINNING CHEMISTRY				4 UNITS	
	Principles of basic chemistry					
20730	Lab 02:15-06:05 PM	M	Young	ATLAN 150	Alameda	
	Lec 01:00-02:05 PM	MWF		ATLAN 160		
	02/04/2015 - 05/22/2015					
23713	Lab 02:15-05:30 PM	W	Young	ATLAN 150	Alameda	
	Lec 01:00-02:05 PM	MWF		ATLAN 160		
	02/04/2015 - 05/22/2015					

CHILD DEVELOPMENT					CHDEV	
* 50	INTRODUCTION TO EARLY CHILDHOOD EDUCATION				3 UNITS	
	Survey of the issues and methodology of early childhood education from a diverse perspective which provides a framework for child development/early childhood studies and professional development					
20697	Lec 09:30-12:20 PM	T	Calica	A 139	Merritt	
20708	Lec 06:30-09:20 PM	M	Gutierrez	A 214	Merritt	
20715	Lec 06:30-09:20 PM	W	Cheng	A 139	Merritt	
** 51	CHILD GROWTH AND DEVELOPMENT				3 UNITS	
	Prenatal through adolescence typical and atypical human growth and development					
20698	Lec 09:30-12:20 PM	W	Briffa	A 139	Merritt	
22964	Lec 04:30-05:45 PM	TTh	Staff		Berkeley	
20699	Lec 06:30-09:20 PM	Th	McDonald	A 217	Merritt	
20707	Lec 06:30-09:20 PM	T	Briffa	A 139	Merritt	
23378	Lec		Briffa	HYBRID	Merritt	
	Lec 12:00-02:50 PM	S		A 139		
	<i>Hybrid course. Meets on campus on 5 Saturdays: 1/24, 2/21, 3/14, 4/18, 5/16.</i>					
* 52	OBSERVATION AND ASSESSMENT				3 UNITS	
	Overview of current assessment developed to promote a better understanding of children, families, and ECE programs					
	PREREQUISITE: CHDEV 51					
20712	Lec 06:30-09:20 PM	W	Crocker	A 100	Merritt	
24282	Lec 06:30-09:20 PM	Th	Straka	A 139	Merritt	

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
240A	ADVANCED PROFESSIONAL PHOTOGRAPHY				2 UNITS
	Advanced photographic assignments				
22515	Lab 10:00-01:50 PM	F	Moya	A 178	Laney
	Lab 10:30-02:20 PM	MW		A 178	
	Lec 09:00-10:15	MW		A 178	
	01/20/2015 - 05/22/2015				
22517	Lab 09:30-12:20 PM	S	Lomba	A 178	Laney
	Lec 08:30-09:20	S		A 178	
	Lab 07:00-09:50 PM	W		A 178	
	Lec 06:00-06:50 PM	W		A 178	
	01/20/2015 - 05/22/2015				
240B	ADVANCED PROFESSIONAL PHOTOGRAPHY				2 UNITS
	Advanced photographic assignments				
22519	Lab 10:00-01:50 PM	F	Moya	A 178	Laney
	Lab 10:30-02:20 PM	MW		A 178	
	Lec 09:00-10:15	MW		A 178	
	01/20/2015 - 05/22/2015				
22521	Lab 09:30-12:20 PM	S	Lomba	A 178	Laney
	Lec 08:30-09:20	S		A 178	
	Lab 07:00-09:50 PM	W		A 178	
	Lec 06:00-06:50 PM	W		A 178	
	01/20/2015 - 05/22/2015				
240C	ADVANCED PROFESSIONAL PHOTOGRAPHY				2 UNITS
	Advanced photographic assignments				
22523	Lab 10:00-01:50 PM	F	Moya	A 178	Laney
	Lab 10:30-02:20 PM	MW		A 178	
	Lec 09:00-10:15	MW		A 178	
	01/20/2015 - 05/22/2015				
22525	Lab 09:30-12:20 PM	S	Lomba	A 178	Laney
	Lec 08:30-09:20	S		A 178	
	Lab 07:00-09:50 PM	W		A 178	
	Lec 06:00-06:50 PM	W		A 178	
	01/20/2015 - 05/22/2015				
240D	ADVANCED PROFESSIONAL PHOTOGRAPHY				2 UNITS
	Advanced photographic assignments				
22527	Lab 10:00-01:50 PM	F	Moya	A 178	Laney
	Lab 10:30-02:20 PM	MW		A 178	
	Lec 09:00-10:15	MW		A 178	
	01/20/2015 - 05/22/2015				
22529	Lab 09:30-12:20 PM	S	Lomba	A 178	Laney
	Lec 08:30-09:20	S		A 178	
	Lab 07:00-09:50 PM	W		A 178	
	Lec 06:00-06:50 PM	W		A 178	
	01/20/2015 - 05/22/2015				
251	SPECIAL PROJECTS LABORATORY				1-4 UNITS
	Open laboratory for working on selected projects				
22480	Lab 09:00-11:50	F	Avery	A 178	Laney
22481	Lab 09:00-11:50	S	Bobkoff	A 178	Laney

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
22534	Lab 07:00-09:50 PM	W	Lomba	A 178	Laney
22535	Lab 09:00-11:50	W	Moya	A 178	Laney

PHYSICAL SCIENCE**PHYSIC**

** 20	INTRODUCTION TO THE MARINE ENVIRONMENT				3 UNITS
	Introduction to the oceans				
22552	Lec		Nelson	HYBRID	Berkeley
	Lec 05:00-06:50 PM	M		BCC TBA	
	<i>Designed for PACE students, see PACE office to enroll; hybrid class meets 1 hr/wk in class, remaining 2 hrs/week online.</i>				
22553	Lec		Staff	ONLINE	Laney
	<i>Online course. Email instructor: dsegar@peralta.edu. Class website and information at www.reefimages.com/PHYSIC</i>				
** 25	CLIMATE CHANGE				3 UNITS
	Introduction to the science of global climate change				
22554	Lec		Staff	ONLINE	Laney
	<i>Online Course. Email instructor at dsegar@peralta.edu. Class website and information at www.reefimages.com / physc</i>				

PHYSICS**PHYS**

** 2B	GENERAL PHYSICS				5 UNITS
	Comprehensive study of general physics				
	PREREQUISITE: PHYS 2A				
23851	Lab 07:00-09:50 PM	M	Renbarger	D 144	Merritt
	Lec 06:00-06:50 PM	M		D 144	
** 3B	GENERAL PHYSICS				5 UNITS
	Comprehensive study of major topics of physics				
	PREREQUISITE: PHYS 3A				
22548	Lab 10:00-12:50 PM	T	Staff	A 274	Laney
	Lec 08:00-09:50	TTh		A 266	
22549	Lab 10:00-12:50 PM	Th	Staff	A 274	Laney
	Lec 08:00-09:50	TTh		A 266	
23082	Lab 07:00-09:50 PM	T	Fillingim	BCC 518	Berkeley
	Lec 05:00-06:50 PM	TTh		BCC TBA	
23567	Lab 07:00-09:50 PM	Th	Staff	BCC 518	Berkeley
	Lec 05:00-06:50 PM	TTh		BCC TBA	
** 4A	GENERAL PHYSICS WITH CALCULUS				5 UNITS
	Comprehensive study of major topics of physics				
	PREREQUISITE: MATH 3A				
22537	Lab 01:00-03:50 PM	M	Staff	ATLAN 100	Alameda
	Lec 01:00-02:50 PM	TTh		ATLAN 100	
22543	Lab 10:30-01:20 PM	M	Mohebi	A 274	Laney
	Lec 08:00-09:50	MW		D 200	
23430	Lab 10:30-01:20 PM	W	Mohebi	A 274	Laney
	Lec 08:00-09:50	MW		D 200	
23300	Lab 06:00-08:50 PM	M	Duffin	A 274	Laney
	Lec 06:00-07:50 PM	TTh		FORUM	
** 4B	GENERAL PHYSICS WITH CALCULUS				5 UNITS
	Comprehensive study of major topics of physics				
	PREREQUISITE: PHYS 4A AND MATH 3B				
22545	Lab 09:00-11:50	F	Smith	A 274	Laney
	Lec 07:40-08:50	MWF		A 266	

CODE	SEC/L/HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
22550	Lab 12:00-02:50 PM	F	Smith	A 274	Laney
	Lec 07:40-08:50	MWF		A 266	
23084	Lab 01:30-04:20 PM	M	Staff	BCC 518	Berkeley
	Lec 09:30-11:20	MW		BCC 431	
** 4C	GENERAL PHYSICS WITH CALCULUS 5 UNITS				
	Comprehensive study of major topics of physics				
	PREREQUISITE: PHYS 4B AND MATH 3C				
22540	Lab 09:00-11:50	F	Tsai	ATLAN 100	Alameda
	Lec 10:00-11:50	TTh		ATLAN 100	
** 10	INTRODUCTION TO PHYSICS 4 UNITS				
	Elementary introduction to the field of physics				
22538	Lec		Tsai	ONLINE	Alameda
	<i>Online Course: Please see http://alameda.peralta.edu/physics10 for more information.</i>				
22546	Lec 06:00-07:50 PM	TTh	Alvis	E 255	Laney
22551	Lec 10:30-12:20 PM	TTh	Renbarger	D 144	Merritt
22541	Lec 07:00-08:50 PM	MW	Staff	BCC 518	Berkeley

POLITICAL SCIENCE

** 1	GOVERNMENT AND POLITICS IN THE UNITED STATES 3 UNITS				
	Introduction to principles and the political process of national, state, and local government				
22575	Lec 06:00-08:50 PM	W	Staff	E 255	Laney
22555	Lec 08:30-09:45	MW	Lomax	D 237	Alameda
22562	Lec 06:30-09:20 PM	M	Staff	BCC 054	Berkeley
23564	Lec		Vanspanje	ONLINE	Merritt
	<i>Online course. Instructor's email: mvenspanje@peralta.edu. Orientation: TBA</i>				
22574	Lec		Staff	ONLINE	Laney
	<i>Online course. For more information, contact instructor at:</i>				
22576	Lec		Toussantjackson	ONLINE	Merritt
	<i>Online course. Instructor's email: atoussantjackson@peralta.edu. Orientation: TBA</i>				
22577	Lec 10:00-10:50	MWF	Staff	A 137	Merritt
22566	Lec 09:30-12:20 PM	Th	Freeman	BCC 034	Berkeley
22556	Lec 08:30-09:45	TTh	Hurtadoortiz	D 237	Alameda
22583	Lec 02:00-03:15 PM	MW	Godfrey	E 255B	Laney
22570	Lec 09:00-10:15	TTh	Godfrey	E 211	Laney
22580	Lec 09:00-11:50	F	Staff	C 209	Alameda
22565	Lec		Freeman	ONLINE	Berkeley
	<i>Online class- for information, please visit www.eberkeley.org.</i>				
22578	Lec 11:00-11:50	MWF	Staff	A 218	Merritt
23559	Lec 01:30-04:20 PM	F	Haskell	BCC 322	Berkeley
22581	Lec 03:00-04:15 PM	TTh	Hurtadoortiz	D 237	Alameda
24320	Lec 11:00-12:15 PM	MW	Godfrey	E 200	Laney
22559	Lec 06:00-08:50 PM	W	Staff	D 119	Alameda
22569	Lec 06:30-09:20 PM	T	Freeman	BCC TBA	Berkeley
22584	Lec 06:00-08:50 PM	W	Alter	A 211	Merritt
22568	Lec		Freeman	HYBRID	Berkeley
	Lec 08:00-09:15	Th		BCC 034	
	<i>Hybrid class— 1.5 hrs/wk in class, & 1.5 hrs/wk online.</i>				

CODE	SEC/L/HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
22560	Lec		Sweeney	HYBRID	Alameda
	<i>Hybrid Course. Please contact instructor at mmmontague@peralta.edu for more information. Mandatory orientation TBA.</i>				
22571	Lec 09:30-10:45	MW	Staff	E 200	Laney
22889	Lec 10:00-11:15	MW	Lomax	D 237	Alameda
22858	Lec		Staff	HYBRID	Berkeley
	Lec 08:00-09:15 PM	M		BCC 421	
	<i>Designed for PACE Pathways students. Hybrid section, meets 8:00-9:15pm Mons, & 1.5 hrs/wk online.</i>				
24152	Lec 09:30-10:45	MW	Respini	BCC 034	Berkeley
23746	Lec		Hurtadoortiz	HYBRID	Alameda
	<i>Hybrid Course. Please contact instructor at jhortiz@peralta.edu for more information. Mandatory orientation TBA.</i>				
24153	Lec 01:30-02:45 PM	MW	Staff	BCC TBA	Berkeley
** 2	COMPARATIVE GOVERNMENT 3 UNITS				
	Comparative analysis in government and politics				
22558	Lec 10:00-11:15	TTh	Brem	C 208	Alameda
23242	Lec 12:30-01:45 PM	MW	Godfrey	E 204	Laney
22579	Lec		Toussantjackson	ONLINE	Merritt
	<i>Online class. instructor's email: atoussantjackson@peralta.edu. Orientation: TBA</i>				
22567	Lec		Respini	ONLINE	Berkeley
	<i>Online class- for information, please visit www.eberkeley.org.</i>				
** 3	INTERNATIONAL RELATIONS 3 UNITS				
	Nature of relations among nation-states				
22582	Lec		Sweeney	HYBRID	Alameda
	<i>Hybrid Course. Please contact instructor at mmmontague@peralta.edu for more information. Mandatory orientation TBA.</i>				
22573	Lec 10:30-11:45	TTh	Godfrey	E 207	Laney
22564	Lec 01:30-04:20 PM	T	Freeman	BCC 226	Berkeley
** 4	POLITICAL THEORY 3 UNITS				
	Examination of various theoretical approaches to politics and of basic political problems and proposed solutions				
22557	Lec 06:00-08:50 PM	T	Brem	D 229	Alameda
23757	Lec 01:00-02:15 PM	TTh	Staff	G 246	Laney
** 6	THE U.S. CONSTITUTION AND CRIMINAL DUE PROCESS 3 UNITS				
	Survey and analysis of people's rights under criminal and civil law				
24380	Lec 01:30-04:20 PM	Th	Haskell	BCC 226	Berkeley
* 8	LAW AND DEMOCRACY 3 UNITS				
	Introduction to legal concepts in American democracy and contemporary issues				
23985	Lec 06:00-08:50 PM	Th	Sweeney	C 109	Alameda
** 20	CURRENT WORLD PROBLEMS 3 UNITS				
	World problems with emphasis on four major areas of concern				
22853	Lec 11:00-12:15 PM	TTh	Staff	BCC 031	Berkeley
	<i>Global Studies Program class. If you enroll in ENGL 1B, #22947, you can get credit in both classes for two shared assignments and fulfill degree requirements.</i>				
** 26	UNITED STATES AND CALIFORNIA CONSTITUTION 3 UNITS				
	Introductory survey of philosophy, theory, and application of constitutional principles				
22561	Lec 12:00-01:15 PM	MW	Lomax	C 208	Alameda
	<i>Note: Course satisfies American Institutions requirement.</i>				

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
* 36	APPLIED PEACEBUILDING AND VIOLENCE PREVENTION				3 UNITS
	Introduction to social theories and intervention strategies to prevent violence and build healthy communities				
23715	Lec 06:00-08:50 PM W		Crain	D 237	Alameda

PORTUGUESE **PORT**

* 1A	ELEMENTARY PORTUGUESE				5 UNITS
	Study and practice in understanding, speaking, reading, and writing Portuguese				
22880	Lec 03:30-05:45 PM MW		Adao	BCC 216	Berkeley

PSYCHOLOGY **PSYCH**

* 1A	INTRODUCTION TO GENERAL PSYCHOLOGY				3 UNITS
	Scientific principles of psychology				
22628	Lec 02:30-03:45 PM MW		Clemente	F 201	Laney
22616	Lec		Powell	ONLINE	Merritt
	<i>Online course. Instructor's email: apowell@peralta.edu. Orientation: TBA</i>				
22597	Lec 11:00-12:15 PM TTh		Kocel	BCC 424	Berkeley
22595	Lec 06:00-08:50 PM T		Farleygillispie	C 211	Alameda
22585	Lec 08:30-09:45	MW	Stamatakis	C 211	Alameda
22598	Lec 03:00-04:15 PM TTh		Kocel	BCC 014	Berkeley
22614	Lec 06:00-08:50 PM W		Rivas	R 28	Merritt
22606	Lec 01:00-02:15 PM TTh		Iljas	F 255	Laney
24329	Lec 02:30-03:45 PM TTh		Iljas	F 255	Laney
22619	Lec 11:00-12:15 PM TTh		Powell	P 208	Merritt
22599	Lec 01:30-04:20 PM M		Kocel	BCC 054	Berkeley
22586	Lec 01:00-02:15 PM MW		Kinna	C 211	Alameda
22625	Lec 08:30-09:45	TTh	Stamatakis	C 211	Alameda
22600	Lec 09:00-11:50	F	Staff	BCC 055	Berkeley
22620	Lec 05:30-08:20 PM T		Rivas	FRVAL	Merritt
	<i>Taught bilingually in Spanish. Meets at the Fruitvale Center, 1900 Fruitvale Ave., Oakland. For information: 536-1830.</i>				
24330	Lec 04:00-05:15 PM TTh		Iljas	F 255	Laney
23682	Lec		Powell	ONLINE	Merritt
	<i>Online course. Instructor's email: apowell@peralt.edu. Orientation: TBA</i>				
22604	Lec 01:30-04:20 PM W		Kocel	BCC 054	Berkeley
22626	Lec		Melucci	ONLINE	Alameda
	<i>Online Course. Contact instructor at nmelucci@peralta.edu for more information.</i>				
23484	Lec 09:00-11:50	S	Stamatakis	C 105	Alameda
22854	Lec 08:00-09:15	TTh	Scharnetzki	BCC 055	Berkeley
23268	Lec 06:30-09:20 PM W		Gade	WHEELR 130	Berkeley
	<i>Location: Wheeler Hall, Room 130, UC Berkeley.</i>				
22608	Lec 11:00-12:15 PM MW		Clemente	F 255	Laney
23982	Lec		Kinna	ONLINE	Alameda
	<i>Online Course. Contact instructor at kkinna@peralta.edu for more information.</i>				
22609	Lec 10:30-11:45	TTh	Iljas	F 255	Laney
22610	Lec 09:00-10:15	TTh	Iljas	F 255	Laney
23535	Lec 02:30-05:20 PM Th		Najmbriscoe	F 203	Laney

CODE	SEC L/L HOURS	DAYS	INSTRUCTOR	ROOM	COLLEGE
23387	Lec		Vanputten	HYBRID	Laney
	Lec 06:00-07:15 PM W F 255				

02/04/2015 - 05/22/2015 This section is a late-start, 12-week, hybrid or blended learning opportunity. As a hybrid, because 70% of the course work is done online using the learning management system that accompanies the textbook, computer and internet access are required in order to succeed in this section of the course.

**** 1B INTRODUCTION TO GENERAL PSYCHOLOGY** **3 UNITS**

	Continuation of PSYCH 1A				
22593	Lec		Petersonguada	ONLINE	Alameda

Online Course. Contact instructor at speterson@peralta.edu for more information.

22587	Lec 10:00-11:15	MW	Petersonguada	C 105	Alameda
23981	Lec		Petersonguada	ONLINE	Alameda

Online Course. Contact instructor at speterson@peralta.edu for more information.

**** 3 INTRODUCTION TO PERSONALITY THEORY** **3 UNITS**

Classical and contemporary personality theories. Theorists from each of the major forces in psychology

22588	Lec 10:00-11:15	MW	Brem	D 205	Alameda
** 6	SOCIAL PSYCHOLOGY				3 UNITS

Psychological aspects of human social life involved in the relationship between identity and social structure

22615	Lec 01:30-02:45 PM TTh		Powell	P 208	Merritt
22601	Lec 01:30-02:45 PM TTh		Kocel	BCC 422	Berkeley

**** 7A PSYCHOLOGY OF CHILDHOOD** **3 UNITS**

Physical, intellectual, and emotional growth of children from conception to puberty

23720	Lec		Farleygillispie	HYBRID	Alameda
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Hybrid Course. Orientation on Thursday, Jan. 22, 2014 from 6:00-8:00PM in room C211. Please contact instructor at jfarleygillispie@peralta.edu for more information.

22611	Lec 06:00-08:50 PM Th		White	F 255	Laney
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22629	Lec 02:30-03:45 PM TTh		White	F 201	Laney
** 7B	ADOLESCENT PSYCHOLOGY				3 UNITS

Study of adolescence

22596	Lec 10:00-11:15	TTh	Chishty	C 211	Alameda
** 9A	PSYCHOLOGY OF INTERPERSONAL RELATIONS				3 UNITS

Group approach to the study of interpersonal relations

22589	Lec 01:00-02:15 PM TTh		Scott	D 119	Alameda
** 9B	PSYCHOLOGY OF INTERPERSONAL RELATIONS				3 UNITS

Group approach to the study of interpersonal relations

22590	Lec 01:00-02:15 PM TTh		Scott	D 119	Alameda
** 10	PSYCHOLOGY AND LIFE: BASIC PRINCIPLES				3 UNITS

Basic principles of psychology and recent research developments

22624	Lec		Powell	ONLINE	Merritt
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Online course. Instructor's email: apowell@peralta.edu. Orientation: TBA

S. 2014-15 Biology Annual Program Update

**Peralta Community College District
Annual Program Update Template 2014-2015
DISTRICT-WIDE DATA by Subject/Discipline Fall Semesters**

I. Overview			
BI Download:	10/23/2014 17:41	Dept. Chair:	Reza Majlesi
Subject/Discipline:	BIOL	Dean:	Char Perlas
Campus:	College of Alameda		
Mission Statement	<ul style="list-style-type: none"> • To prepare biology majors to transfer into 4-year programs in biology and health science (nursing, pharmacy, physical therapy, physician's assistant). • To prepare students with bachelors degrees for entry into professional schools (medicine, dentistry). • To offer courses that satisfy the physical and life sciences requirements for transfer into 4-year institutions in majors other than biology and health science. • To offer courses to satisfy the natural science requirement for an AA degree. • To offer courses for continuing education requirements in the health professions. • To satisfy the continuing education needs of the community. 		

II. Enrollment					
	Alameda	Berkeley	Laney	Merritt	District
Census Enrollment F11	490	483	1,052	869	2894
Census Enrollment F12	322	433	1,023	1,027	2805
Census Enrollment F13	313	469	1173	863	
Sections F11	12	13	24	28	74
Sections F12	8	13	25	28	74
Sections F13	9	13	31	23	
Total FTES F11	103.02	100.1	187.56	190.85	581.53
Total FTES F12	71.86	86.2	184.72	213.38	556.16
Total FTES F13	63.23	100.35	195.46	176.81	
Total FTEF F11	4.85	4.93	8.35	8.69	26.82
Total FTEF F12	3.59	4.62	8.35	10.22	26.78
Total FTEF F13	3.64	5.87	9.55	8.95	
FTES/FTEF F11	21.23	20.3	22.47	21.97	21.6827
FTES/FTEF F12	20.03	18.67	22.13	20.87	20.7677
FTES/FTEF F13	17.37	17.10	20.47	19.75	

III. Student Success

	Alameda	Berkeley	Laney	Merritt	District
Total Graded F11	461	460	1012	819	2752
Total Graded F12	311	426	998	984	2719
Total Graded F13					
Success F11	308	341	674	610	1933
Success F12	199	294	721	714	1928
Success F13					
% Success F11	0.67	0.74	0.67	0.74	0.7
% Success F12	0.64	0.69	0.72	0.73	0.71
% Success F13					
Withdraw F11	99	75	183	139	496
Withdraw F12	60	69	138	157	424
Withdraw F13					
% Withdraw F11	0.21	0.16	0.18	0.17	0.18
% Withdraw F12	0.19	0.16	0.14	0.16	0.16
% Withdraw F13					

IV. Faculty					
	Alameda	Berkeley	Laney	Merritt	District
Contract FTEF F11	1.9	1.07	3.45	4.78	11.2
Contract FTEF F12	1.8	1.43	3.25	5.55	12.03
Contract FTEF F13	1.59	2.45	3.33	4.44	
TEMP FTEF F11	2.25	3.84	4.17	3.45	13.71
TEMP FTEF F12	1.11	3.15	4.4	3.7	12.36
TEMP FTEF F13	1.37	3.41	5.42	4.13	
Extra Service FTEF F11	0.7	0.02	0.72	0.46	1.9
Extra Service FTEF F12	0.68	0.04	0.7	0.98	2.4
Extra Service FTEF F13	0.68	-----	0.79	0.38	
Total FTEF F11	4.85	4.93	8.35	8.69	26.82
Total FTEF F12	3.59	4.62	8.35	10.23	26.79
Total FTEF F13	3.64	5.87	9.55	8.95	
% Contract/Total F11	0.39	0.22	0.41	0.55	0.418
% Contract/Total F12	0.5	0.31	0.39	0.54	0.449
% Contract/Total F13	0.43	0.41	0.34	0.49	

V. Qualitative Assessments	
<p>CTE and Vocational: Community and labor market relevance. Present evidence of community need based on Advisory Committee input, industry need data, McIntyre Environmental Scan, McKinsey Economic Report, licensure and job placement rates, etc.</p>	N/A
<p>Transfer and Basic Skills: Describe how your course offerings address transfer, basic skills, and program completion.</p>	<ul style="list-style-type: none"> All the courses that we offer are transferable to other colleges and/ or four-year institutions. We constantly update and revise our curricula to encompass all new findings in the field of Biological Sciences.

VI. Course SLOs and Assessment	
	Fall 2013
Number of active courses in your discipline	8
Number with SLOs	8
% SLOs/Active Courses	100%
Number of courses with SLOs that have been assessed	100%
% Assessed/SLOs	100%
Describe types of assessment methods you are using <ul style="list-style-type: none"> • Exams, lab activity, quizzes, demonstration 	
Describe results of your SLO assessment progress <ul style="list-style-type: none"> • Met or exceeded standards in all sections 	
Describe how assessment results and reflection on those results have led to improvements. <ul style="list-style-type: none"> • N/A 	

VII. Program Learning Outcomes and Assessment

	Fall 2013
Number of degrees and certificates in your discipline	1
Number with Program Learning Outcomes	1
Number assessed	1
% Assessed	100%
Describe assessment methods you are using <ul style="list-style-type: none">• Exams, instructor observation	
Describe results of assessment. Describe how assessment of program-level student learning outcomes led to certificate/degree program improvements. <ul style="list-style-type: none">• Met or exceeded all standards	

VIII. Strategic Planning Goals

Check all that apply.

- Advance Student Access, Success & Equity
- Engage our Communities & Partners
- Build Programs of Distinction
- Create a Culture of Innovation & Collaboration
- Develop Resources to Advance & Sustain Mission

Describe how goal applies to your program.

Advance Student Access, Success & Equity:

- We moved to 860 Atlantic Avenue over the summer, so our classes are all offered this semester in the new building. We are working with librarians from the campus to establish a digital library site which will allow student access to research databases with help from an on-site librarian.
- The Biology Department initiated a new tutoring program at the Science Annex, to enable students at our satellite facility to avail themselves of timely and local tutoring opportunities and services. We are exploring avenues to expand this new, trial program in 2014.
- The Physiology Program updated laboratory exercises including action-potential and muscle contraction labs.
- In the nonmajors biology class, instructors dedicate more time to cover basic skills topics to help underprepared students who enroll in the class without the skills to grasp scientific topics and methods.

Engage our communities & Partners:

- Biology Department faculty members are available to serve as guest speakers off-campus, to local business and fraternal organizations
- The Anatomy Program hosts Alameda High School classes who do not have access to a human cadaver for study of actual human organ systems. High school students study male and female cadavers, under the direction of COA's anatomy instructors and the Alameda High School teacher.

Build Program of Distinction:

- Biology Department has offered 4 new proposals to start new courses. During the last few years, we successfully have received the approval for some new courses from the Curriculum Committee yet, due to the unfortunate state economic crisis we were not able to fully implement them in our course catalog. We are hoping for the next year at least one or two approved courses will be launched in our college.
- The Biology Department has also created a series of Distance Learning courses. We now offer two hybrid courses and one fully

online course to that group of students who are not able to attend traditional face-to-face classes.

Create a Culture of Innovation & Collaboration:

- The Biology Department shares space in the Science Annex with the Genomics Program of Merritt College. Space allocation, scheduling and interpersonal relations have all been modified to accommodate our sister college's program.

Develop Resources to Advance & Sustain

Mission:

- We are also engaged in discussions that may result in creation of a sequence of courses that would provide good, sound biology training for students with a bachelor's degree in a non-science field, who wish to pursue a medical, or biology-based course of studies at the graduate level.

IX. College Strategic Plan Relevance

Check all that apply

- New program under development
- Program that is integral to your college's overall strategy
- Program that is essential for transfer
- Program that serves a community niche
- Programs where student enrollment or success has been demonstrably affected by extraordinary external factors, such as barriers due to housing, employment, childcare etc.
- Other

New program under development:

- Microbiology with lab, Pathophysiology courses for nursing students.

Program that is integral to your college's overall strategy:

- Our biology program in general is exactly parallel to the Institutional goals and learning outcomes.

Program that is essential for transfer:

- All courses in the Biology Department are fully articulated. The majority of courses are essential for biology majors.

Program that serves a community niche:

- The greater Bay Area is known all over the world as a center for biological, microbiological, biotechnological and medical research and practice. Our program prepares students for entry into professional programs within any and all of these disciplines.

Programs where student enrollment or success has been demonstrably affected by extraordinary external factors, such as barriers due to housing, employment, childcare etc.

- N/A

X. Action Plan

Please describe your plan for responding to the above data (quantitative, qualitative, and data specifically from course and program learning outcomes assessment). Consider curriculum, pedagogy/instructional, scheduling, and marketing strategies. Also, please reference any cross district collaboration with the same discipline at other Peralta colleges.

Include overall plans/goals and specific action steps.

1. *Update General Biology laboratories to include DNA technology*
 - *purchase equipment and supplies*
 - *train instructors and lab technician*
 - *upgrade lab facilities*
2. *Update Human Physiology laboratories with a full laboratory at the new site*
 - *develop new muscle physiology lab*
 - *purchase new physiology equipment and materials*
 - *new microscopes*
3. *Develop and offer microbiology with a full laboratory*
 - *Hire full-time, tenure-track faculty to teach this course*
 - *Purchase all equipment needed for the course*
 - *Hire classified staff to prepare labs for this course and numbers 6 and 7 (below)*
4. *Develop and offer combined Anatomy and Physiology with a full laboratory*
 - *Hire full-time, tenure-track faculty to teach this course*
 - *Purchase all equipment needed (see #2, above)*

This means the hiring of two full-time tenure-track instructors, one to teach general biology/microbiology courses, and the other to replace a retired anatomy instructor.

1. *Establish a counselor specializing in health sciences, biotechnology and other biological fields*
2. *Develop and promulgate new, formal, course sequence to enable medical technician certification*

XI. Needs

Please describe and prioritize any **faculty, classified, and student assistant** needs.

Three new faculty members as follows:

Replace one retired faculty

The new laboratory courses proposed above will need the services of 2 additional instructors

- 1 half-time laboratory technician when programs are in place.
- 2 student assistants needed for the lab technician each semester and one for summer session
- 4 student instructional assistants needed for instructors each semester.

Please describe and prioritize any **equipment, material, and supply** needs.

- New physiology equipment
- New microscopes
- Microbiology lab equipment
- Power lab and laptops
- Human anatomy animal specimens for dissection
- One cadaver per year
- Electrophoresis equipment
- Microscope repairs
- Countertop dishwasher for anatomy
- Biology Department dishwasher
- Repair of autoclave and flask washer
- Speaker and surround system in the classroom for watching videoclips and animations
- Photocopy machine for the Science Annex
- Turn It In .com plagiarism software

Please describe and prioritize any **facilities** needs.

- The Biology Department has moved to 860 Atlantic Avenue, and does not expect to encounter deficiencies in CalOSHA standards

Please describe any technology needs

- Powerlab and laptops
- Improving wifi system of the campus

T. 2014-2015 Chemistry Annual Program Update

College of Alameda

Annual Program Update

Supplemental/Revised Template 2014-2015

I. Overview

BI Download:	September 19, 2014	Dept. Chair:	Dr. Eileen Clifford & Dr. Patti Tsai
Subject/Discipline:	Chemistry	Dean:	Dr. Charlene Perlas
Campus:	College of Alameda		
Mission Statement	To teach students a thorough understanding of chemistry and instill a love of science.		

II. Enrollment – *see department specific data sheet*

III. Student Success– *see department specific data sheet*

IV. Faculty –

SUB	SECT	CENSUS	FTES TOTL	FTEF CONT	FTEF EXSV	FTEF TEMP	FTEF TOTL
FA13	6	192	46.68	0.4	0	2.52	2.92
SP14	5	186	49.4	1	0.08	1.48	2.56

V. Qualitative Assessments

CTE and Vocational: Community and labor market relevance. Present evidence of community need based on Advisory Committee input, industry need data, McIntyre Environmental Scan, McKinsey Economic Report, licensure and job placement rates, etc.

Transfer and Basic Skills: Describe how your course offerings address transfer, basic skills, and program completion.

All courses offered in Chemistry are transferrable to CSU or UC schools. Students interested in nursing, physical therapy, medicine, nutrition, and many other majors all need basic coursework in Chemistry.

VI. Course SLOs and Assessment

	Fall 2014
Number of active courses in your discipline	5 separate courses, 6 classes
Number with SLOs	5
% SLOs/Active Courses	100%
Number of courses with SLOs that have been assessed	Will complete all in Fall 2014
% Assessed/SLOs	100% to be assessed in Fall 2014
Describe types of assessment methods you are using Examination of written student assignments and performance on exams.	
Describe results of your SLO assessment progress Chem1A and Chem1B use national exams from the American Chemical Society as part of assessment to compare students to national population. Results show that students perform similarly to national averages of all students who take first year college chemistry, whether at two or four year schools, or better.	
Describe how assessment results and reflection on those results have led to improvements. Assessments have shown that students are appropriately challenged, and are learning appropriate depth and amount of material. Chemistry can be very challenging for some students to master, and assessments help to underline what topics need additional revision.	

VII. Program Learning Outcomes and Assessment

	Fall 2014
Number of degrees and certificates in your discipline	N/A
Number with Program Learning Outcomes	N/A
Number assessed	N/A
% Assessed	N/A
Describe assessment methods you are using N/A	
Describe results of assessment. Describe how assessment of program-level student learning outcomes led to certificate/degree program improvements. N/A	

VIII. Strategic Planning Goals

Check all that apply. <input checked="" type="checkbox"/> Advance Student Access, Success & Equity <input checked="" type="checkbox"/> Engage our Communities & Partners <input checked="" type="checkbox"/> Build Programs of Distinction <input checked="" type="checkbox"/> Create a Culture of Innovation & Collaboration <input checked="" type="checkbox"/> Develop Resources to Advance & Sustain Mission	Describe how goals apply to your program. Please see action plan below.
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IX. College Strategic Plan Relevance

Check all that apply <input type="checkbox"/> New program under development <input checked="" type="checkbox"/> Program that is integral to your college's overall strategy <input checked="" type="checkbox"/> Program that is essential for transfer <input type="checkbox"/> Program that serves a community niche <input type="checkbox"/> Programs where student enrollment or success has been demonstrably affected by extraordinary external factors, such as barriers due to housing, employment, childcare etc. <input type="checkbox"/> Other
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X. Action Plan

Please describe your plan for responding to the above data (quantitative, qualitative, and data specifically from course and program learning outcomes assessment). Consider curriculum, pedagogy/instructional, scheduling, and marketing strategies. Also, please reference any cross district collaboration with the same discipline at other Peralta colleges.

Include overall plans/goals and specific action steps.

Program learning assessments have been positive, showing that the majority of students are achieving the required mastery of the material. Use of online homework by many instructors has allowed students instant and interactive feedback and has allowed instructors to see the problems that groups of students are having trouble with, and address them quickly in class.

Scheduling additional sections of Chem30A has increased enrollment, and allowed more students to take required courses. Data shows that Chem50 enrollment increases dramatically when it is offered as a late start class. This allows students who are having trouble in Chem1A to realize this and move to Chem50 after the first 2 week drop date. Chem50 will again be offered as a late start class in Spring 2015, and going forward. Students who complete Chem50 are then much better prepared to retake Chem1A. Scheduling is done in accordance with the block scheduling at College of Alameda, with consideration for classes offered at the other Peralta colleges. Additional future classes may run into issues with lab availability.

Chemistry lab sizes are reduced to 25 students in accordance with safety recommendations by the American Chemical Society. An additional section of Chem1A has been added for Spring 2015 to accommodate students who desire to take the class. Smaller class sizes should increase lab safety and allow more instructor/student interaction.

To better serve new chemistry instructors, and to update and clarify lab manual instructions, we propose a project to improve experimental procedures. A binder with photos of lab setup and required materials with user notes on any difficulties in procedures, coupled with improved student instructions should make the lab experience easier and more beneficial for students and for instructors and lab personnel.

XI. Needs

Please describe and prioritize any **faculty, classified, and student assistant** needs.

- 1.) Since there are three chemistry lab sections that meet in the evening from 6-9 PM (T/W and a Thursday section is added for Spring 2015), we request a half-time evening chemistry/physics lab technician to be shared with Physics. The primary responsibility would be to prepare and trouble-shoot laboratory experiments for physics and evening chemistry classes. This would include: Reading, comprehending, and implementing scientific procedures from written sources, including experiment manuals, laboratory manuals, and reference books; and evaluating equipment to assess its operational state and making simple repairs. Additional responsibilities would include organizing and maintaining the physics stockroom and preparing and maintaining kits for classroom demonstrations in chemistry. We would like to recruit individuals with demonstrated initiative and ability to work independently in chemistry and physics laboratory settings; familiarity with mechanical and electrical equipment; familiarity with computer-assisted laboratory instruction; a solid grasp of lower-division chemistry and safety procedures; and strong organizational skills.
- 2.) Continued demand for Chemistry is seen from students every semester. Another full time faculty member is requested for Chemistry to add to the department capabilities, and provide additional full time presence to be daily accessible to students and staff, as well as providing continuity and the ability to invest additional time with the program and help plan its future.
- 3.) Student assistants are currently serving as TA's for both Chem1A and Chem30A classes. They help students in lab with the experimental procedure and concepts. The students are also more willing to ask questions of the TA's and both benefit. We request funding for student TA's to continue as we find qualified students.
- 4.) Funding for adjunct instructors to work on improved lab manuals and protocols.

Please describe and prioritize any **equipment, material, and supply** needs.

- 1.) A classroom demo desk with natural gas, plumbed sink, and electricity for the chemistry lecture hall, room 110. Classroom demos for chemistry are chances to reinforce explanations with safe and dramatic chemical reactions. The lecture hall in D building had a demo desk, as do most chemistry classrooms.
- 2.) Mail service to 860 Atlantic for Chemistry, Physics, and Biology faculty and staff is requested.

Please describe and prioritize any **facilities** needs.

- 1.) The lab facility at 860 Atlantic (room 150) was not designed as a student chemistry lab. Repairs to chemistry lab needed where improper (not heat safe) materials were used and are deteriorating.
 - 1 large student work bench was covered with formica rather than laboratory stone, and now has burn holes and missing strips of formica. Plywood is visible and could soak up chemicals, which would be unsafe for students in other labs who are unaware of hazards from previous class.
 - 1 large stainless steel sink is rusting. Should be laboratory stone material like the other sinks, impervious to chemicals.
- 2.) Future plans for Chemistry lab space (in Building D or ??) to include proper student lab space (locked drawers for each student pair, not to be shared among several classes) for both general chemistry classes and for organic lab classes so that College of Alameda can offer Organic Chemistry, and offer a full degree program in Chemistry.
- 3.) A photocopy machine with a maintenance contract for the Peralta Science Annex.
- 4.) Additional storage space for Chemistry stockroom to be resolved.

College of Alameda

MISSION

The Mission of College of Alameda to serve the educational needs of its diverse community by providing comprehensive and flexible programs and resources that empower students to achieve their goals.

VISION

The Vision of College of Alameda is that we are a diverse, supportive, empowering learning community for seekers of knowledge. We are committed to providing a creative, ethical and inclusive environment in which students develop their abilities as thinkers, workers and citizens of the world.

VALUES

We use this vision to choreograph three central themes in our quest for “learning excellence” and services to students.

- * Academic Excellence
- * Budgetary Competence
- * Community Engagement

We call these “our ABCs” emphasizing crucial success indicators for our students in achieving an enhanced capacity to pursue their dreams!

District Strategic Goals & Institutional Objectives 2014-2015

The following are the Peralta Community College District’s Strategic Goals and Institutional Objectives for the Academic Year 2014-15 (July 1, 2014 – June 30, 2015) which will be evaluated in Summer 2015.

Strategic Focus for 2014-2015: Our focus this year will be on student success in the core educational areas of basic skills/ESOL (English for speakers of other languages), transfer, and CTE (career technical education) by encouraging accountability, outcomes assessment, innovation and collaboration while spending within an established budget.

<p>Strategic Goals & 2014-2015 Institutional Objectives</p>	
<p>A: Advance Student Access, Equity, and Success</p>	<p>A.1 Student Access: Increase enrollment for programs and course offerings in the essential areas of basic skills/ESOL, CTE and transfer to achieve the District target of 19,355 RES FTES.</p> <p>A.2 Student Success: Increase students’ participation in SSSP eligible activities by 50%, with specific emphasis on expanding orientations, assessments, academic advising and student educational plans.</p> <p>A.3 Student Success: Using baseline data, increase student engagement in activities such as student governance, student life activities, Student leadership development, service learning programs, learning communities, student employment, etc.</p> <p>A.4 Student Equity Planning: Address the achievement gap through fully developing and implementing the student success and equity plans at each campus.</p>
<p>B: Engage and Leverage Partners</p>	<p>B.1 Partnerships: Develop a District-wide database that represents our current strategic partnerships and relationships.</p> <p>B.2. Partnerships: Expand partnerships with K-12 institutions, community based organizations, four-</p>

	year institutions, local government, and regional industries and businesses.
C: Build Programs of Distinction	<p>C.1 Student Success: Develop a District-wide first year experience/student success program.</p> <p>C.2 Student Success: Develop an innovative student success program at each college.</p>
D: Strengthen Accountability, Innovation and Collaboration	<p>D.1 Service Leadership: Provide professional development opportunities for faculty, staff and administrators that lead to better service to our students and colleagues.</p> <p>D.2 Institutional Leadership and Governance: Evaluate and update policies and administrative procedures and the PBIM participatory governance structure.</p>

U. 2014-2015 Physics Annual Program Update

College of Alameda

Annual Program Update

Supplemental/Revised Template 2014-2015

I. Overview			
BI Download:	September 19, 2014	Dept. Chair:	Drs. Patti Tsai & Eileen Clifford
Subject/Discipline:	Physics	Dean:	Dr. Charlene Perlas
Campus:	College of Alameda		
Mission Statement	To integrate conceptual understanding, problem-solving, and laboratory exercises in the physics curriculum.		

II. Enrollment – <i>see department specific data sheet</i>

III. Student Success – <i>see department specific data sheet</i>

IV. Faculty –								
SUB	SECT	CENSUS	FTEF TOTL	FTEF CONT	FTEF EXSV	FTEF TEMP	FTEF TOTL	
FA13	3	111	22.8	1.12	0	0	1.12	
SP14	3	117	23.5	0.69	0	0.43	1.12	

V. Qualitative Assessments	
CTE and Vocational: Community and labor market relevance. Present evidence of community need based on Advisory Committee input, industry need data, McIntyre Environmental Scan, McKinsey Economic Report, licensure and job placement rates, etc.	
Transfer and Basic Skills: Describe how your course offerings address transfer, basic skills, and program completion.	<input checked="" type="checkbox"/> No change – Refer to 2012 Program Review

VI. Course SLOs and Assessment	
	Fall 2014
Number of active courses in your discipline	4
Number with SLOs	4
% SLOs/Active Courses	100%
Number of courses with SLOs that have been assessed	3 to be completed Fall 2014 4 th to be completed Spring 2015
% Assessed/SLOs	75% to be completed Fall 2014 100% to be completed Spring 2015
Describe types of assessment methods you are using Examination of written student assignments and performance on exams.	
Describe results of your SLO assessment progress The full-time physics faculty member has given priority to entering SLOs assessed by adjunct faculty, in order for them to be paid for their work. She plans to catch up with her own assessments prior to the accreditation visit in Spring 2015.	
Describe how assessment results and reflection on those results have led to improvements. By and larger, assessments are successful, reflecting solid integration of concepts and laboratory work with analytical problem-solving.	

VII. Program Learning Outcomes and Assessment

	Fall 2014
Number of degrees and certificates in your discipline	N/A
Number with Program Learning Outcomes	N/A
Number assessed	N/A
% Assessed	N/A
Describe assessment methods you are using N/A	
Describe results of assessment. Describe how assessment of program-level student learning outcomes led to certificate/degree program improvements. N/A	

VIII. Strategic Planning Goals

Check all that apply. <input checked="" type="checkbox"/> Advance Student Access, Success & Equity <input checked="" type="checkbox"/> Engage our Communities & Partners <input checked="" type="checkbox"/> Build Programs of Distinction <input checked="" type="checkbox"/> Create a Culture of Innovation & Collaboration <input checked="" type="checkbox"/> Develop Resources to Advance & Sustain Mission	Describe how goals apply to your program. Please see Section X.
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IX. College Strategic Plan Relevance

Check all that apply <input type="checkbox"/> New program under development <input checked="" type="checkbox"/> Program that is integral to your college's overall strategy <input checked="" type="checkbox"/> Program that is essential for transfer <input type="checkbox"/> Program that serves a community niche <input type="checkbox"/> Programs where student enrollment or success has been demonstrably affected by extraordinary external factors, such as barriers due to housing, employment, childcare etc. <input type="checkbox"/> Other
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X. Action Plan

Please describe your plan for responding to the above data (quantitative, qualitative, and data specifically from course and program learning outcomes assessment). Consider curriculum, pedagogy/instructional, scheduling, and marketing strategies. Also, please reference any cross district collaboration with the same discipline at other Peralta colleges.

Include overall plans/goals and specific action steps.

1. The physics faculty member regularly consults with COA Math, Laney Math, and Laney Physics regarding scheduling. College of Alameda has more limited public transportation and a more limited curriculum in math and engineering, so this is crucial to the health of our program. If the district provided a more transparent way for departments to collaborate in scheduling, this job would be much easier.
2. The departure of an outstanding geography intern, who left a job in the private sector after teaching through Faculty Diversity Internship Program in Spring 2014, renewed the resolve of the physics faculty member to mentor new instructors, and particularly to encourage them to pursue teaching at the community college level. She makes an effort to make informal visits to new instructors' classes in physics, astronomy, and geography well in advance of their official evaluations. She serves on the tenure review committees for two second-year candidates in the COA Math Department, and a first-year candidate in the Merritt Physics Department. Finally, she will evaluate the full-time physics instructor at Laney this fall.
3. Via a PASS proposal, the physics faculty member is in the process of providing full sets of curricular materials for Physics 4A, 4B, and 4C. These materials integrate concepts, laboratory work, and analytical problem-solving. She is also documenting lab setups.
4. The physics faculty member is in the process of mounting a series of research posters by former student interns through their sponsored research projects. As can be expected, the interns represent our community college population in their diversity. Biographical cards and photos will be printed to inspire current students to apply for internships.
5. Community-related efforts include: Annual event with recruitment officer for internship programs sponsored by the Department of Energy, and former interns; and
6. Holding a "Transfer Celebration" and pizza party in the spring, where former students meet students who will be transferring.
7. The full-time physics instructor is in the process of organizing the stockroom, following the move to 860 Atlantic in August 2013.

XI. Needs

Please describe and prioritize any **faculty, classified, and student assistant** needs.

1. The physics and chemistry faculty jointly request a position for a new half-time physics/evening chemistry staff assistant, or technician. The primary responsibility would be to prepare and trouble-shoot laboratory experiments for physics and evening chemistry courses. This would include: Reading, comprehending, and implementing scientific procedures from written sources, including equipment manuals, laboratory manuals, and reference books; and evaluating equipment to assess its operational state and making simple repairs. Additional responsibilities would include organizing and maintaining the physics stockroom; and preparing and maintaining kits for classroom demonstrations in chemistry. We would like to recruit individuals with demonstrated initiative and ability to work independently in physics and chemistry laboratory settings; familiarity with mechanical and electrical equipment; familiarity with computer-assisted laboratory instruction; a solid grasp of lower-division chemistry and safety procedures; and strong organizational skills.
2. Patti Tsai anticipates retiring in Spring 2016. We request a replacement position to interview in Spring 2016, and to start in Fall 2016.

Please describe and prioritize any **equipment, material, and supply** needs.

- (1) Function generators, \$5500.
- (2) TurnItIn.com. All physics classes require writing assignments, notably Physics 10 online. TurnItIn, or another plagiarism-detection software, would be very helpful when students submit questionable work.

Please describe and prioritize any **facilities** needs.

- (1.) A photocopier machine with a maintenance contract for the Peralta Science Annex.
- (2.) Additional storage space at the Peralta Science Annex.

College of Alameda

MISSION

The Mission of College of Alameda to serve the educational needs of its diverse community by providing comprehensive and flexible programs and resources that empower students to achieve their goals.

VISION

The Vision of College of Alameda is that we are a diverse, supportive, empowering learning community for seekers of knowledge. We are committed to providing a creative, ethical and inclusive environment in which students develop their abilities as thinkers, workers and citizens of the world.

VALUES

We use this vision to choreograph three central themes in our quest for “learning excellence” and services to students.

- * Academic Excellence
- * Budgetary Competence
- * Community Engagement

We call these “our ABCs” emphasizing crucial success indicators for our students in achieving an enhanced capacity to pursue their dreams!

District Strategic Goals & Institutional Objectives 2014-2015

The following are the Peralta Community College District's Strategic Goals and Institutional Objectives for the Academic Year 2014-15 (July 1, 2014 – June 30, 2015) which will be evaluated in Summer 2015.

Strategic Focus for 2014-2015: Our focus this year will be on student success in the core educational areas of basic skills/ESOL (English for speakers of other languages), transfer, and CTE (career technical education) by encouraging accountability, outcomes assessment, innovation and collaboration while spending within an established budget.

<p>Strategic Goals & 2014-2015 Institutional Objectives</p>	
<p>A: Advance Student Access, Equity, and Success</p>	<p>A.1 Student Access: Increase enrollment for programs and course offerings in the essential areas of basic skills/ESOL, CTE and transfer to achieve the District target of 19,355 RES FTES.</p> <p>A.2 Student Success: Increase students' participation in SSSP eligible activities by 50%, with specific emphasis on expanding orientations, assessments, academic advising and student educational plans.</p> <p>A.3 Student Success: Using baseline data, increase student engagement in activities such as student governance, student life activities, Student leadership development, service learning programs, learning communities, student employment, etc.</p> <p>A.4 Student Equity Planning: Address the achievement gap through fully developing and implementing the student success and equity plans at each campus.</p>
<p>B: Engage and Leverage Partners</p>	<p>B.1 Partnerships: Develop a District-wide database that represents our current strategic partnerships and relationships.</p> <p>B.2. Partnerships: Expand partnerships with K-12 institutions, community based organizations, four-year institutions, local government, and regional industries and businesses.</p>
<p>C: Build Programs of Distinction</p>	<p>C.1 Student Success: Develop a District-wide first year experience/student success program.</p> <p>C.2 Student Success: Develop an innovative student success program at each college.</p>
<p>D: Strengthen Accountability, Innovation and Collaboration</p>	<p>D.1 Service Leadership: Provide professional development opportunities for faculty, staff and administrators that lead to better service to our students and colleagues.</p> <p>D.2 Institutional Leadership and Governance: Evaluate and update policies and administrative procedures and the PBIM participatory governance structure.</p>

V. Faculty Evaluation Forms

PERALTA COMMUNITY COLLEGE DISTRICT

EVALUEE'S SELF-EVALUATION REPORT FORM (CLASSROOM INSTRUCTOR)

Semester _____ Academic Year _____

Name of Evaluee _____ Date _____

Discipline _____ College _____

*This self-evaluation is in two parts. **Part I** asks you to describe your activities during the past academic year, to list some goals and objectives for the next year, and to provide details about needed institutional support for you to achieve your goals and objectives. You are free to attach additional pages as needed. **Part II** asks you to respond to Evaluation forms that have been submitted since you last completed a self-evaluation.*

PART I

Describe your activities during the past year in the following categories:

1. Maintaining your currency in your discipline:
2. Improving your ability to communicate course content or your professional expertise to students:
3. Participating in College/District governance and campus life:
4. Participating in publications, conference presentations, artistic exhibits, classroom research, development of new curriculum, in-service instruction, and community involvement specific to your area:
5. In terms of classroom instruction, including the assessment of student learning outcomes, what have you learned about student needs, issues, and your own teaching? How will you implement what you have learned?
6. Other appropriate activities:

List your goals and objectives for the next academic year in any or all of the above categories. Identify which of your goals is most important to you.

What support do you need from the College in order to achieve your objectives?

PART II

FACULTY RESPONSE TO FEEDBACK

1. What did you learn about your teaching/counseling/performance from the evaluations you received?
2. What adjustments did you make as a result of the feedback you received?
3. What are your improvement goals resulting from the feedback you received?

Evaluee's Signature _____ Date _____

PERALTA COMMUNITY COLLEGE DISTRICT

EVALUEE'S SELF-EVALUATION REPORT FORM (COUNSELOR)

Semester _____ Academic Year _____

Name of Evaluatee _____ Date _____

Discipline _____ College _____

*This self-evaluation is in two parts. **Part I** asks you to describe your activities during the past academic year, to list some goals and objectives for the next year, and to provide details about needed institutional support for you to achieve your goals and objectives. You are free to attach additional pages as needed. **Part II** asks you to respond to Evaluation forms that have been submitted since you last completed a self-evaluation.*

PART I

Describe your activities during the past year in the following categories:

1. Maintaining your currency in your discipline:
2. Improving your ability to communicate course content or your professional expertise to students:
3. Participating in College/District governance and campus life:
4. Participating in publications, conference presentations, artistic exhibits, classroom research, development of new curriculum, in-service instruction, and community involvement specific to your area:
5. In terms of services you have provided to students as a counselor, including your role in the assessment of student learning outcomes, what have you learned about student needs and issues? How will you implement what you have learned?
6. Other appropriate activities:

List your goals and objectives for the next academic year in any or all of the above categories. Identify which of your goals is most important to you.

What support do you need from the College in order to achieve your objectives?

PART II

FACULTY RESPONSE TO FEEDBACK

1. What did you learn about your teaching/counseling/performance from the evaluations you received?

2. What adjustments did you make as a result of the feedback you received?

3. What are your improvement goals resulting from the feedback you received?

Evaluee's Signature _____ Date _____

PERALTA COMMUNITY COLLEGE DISTRICT

EVALUEE'S SELF-EVALUATION REPORT FORM (LEARNING ASSISTANCE INSTRUCTOR)

Semester _____ Academic Year _____

Name of Evaluatee _____ Date _____

Discipline _____ College _____

*This self-evaluation is in two parts. **Part I** asks you to describe your activities during the past academic year, to list some goals and objectives for the next year, and to provide details about needed institutional support for you to achieve your goals and objectives. You are free to attach additional pages as needed. **Part II** asks you to respond to Evaluation forms that have been submitted since you last completed a self-evaluation.*

PART I

Describe your activities during the past year in the following categories:

1. Maintaining your currency in your discipline:
2. Improving your ability to communicate course content or your professional expertise to students:
3. Participating in College/District governance and campus life:
4. Participating in publications, conference presentations, artistic exhibits, classroom research, development of new curriculum, in-service instruction, and community involvement specific to your area:
5. In the learning assistance instruction you have provided to students, including the assessment of student learning outcomes, what have you learned about student needs and issues? How will you implement what you have learned?
6. Other appropriate activities:

List your goals and objectives for the next academic year in any or all of the above categories. Identify which of your goals is most important to you.

What support do you need from the College in order to achieve your objectives?

PART II

FACULTY RESPONSE TO FEEDBACK

1. What did you learn about your teaching/counseling/performance from the evaluations you received?
2. What adjustments did you make as a result of the feedback you received?
3. What are your improvement goals resulting from the feedback you received?

Evaluee's Signature _____ Date _____

List your goals and objectives for the next academic year in any or all of the above categories. Identify which of your goals is most important to you.

What support do you need from the College in order to achieve your objectives?

PART II

FACULTY RESPONSE TO FEEDBACK

1. What did you learn about your teaching/counseling/performance from the evaluations you received?
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Evaluee's Signature _____ Date _____

List your goals and objectives for the next academic year in any or all of the above categories. Identify which of your goals is most important to you.

What support do you need from the College in order to achieve your objectives?

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