SAN LEANDRO UNIFIED SCHOOL DISTRICT
COURSE PROPOSAL

SECTION A. COVER PAGE

1. **Course Title: Bio Health Pathways I**	7. **Action** X New Course ☐ Course Revision ☐ Title Change Only
2. **Date Submitted:** 3/9/15	8. **Grade Level** X9 X10 X11 X12
3. **Transcript Title/Abbreviation(s)** BioHealth Pathways I (BHP I)	9. **Prerequisites** (Please list.) X None ☐ Required ☐ Recommended
4. **Transcript Course Code/Course Number :**	10. **Seeking Program Distinction?** ☐ YES (Check one below.) ☐NO ☐Honors ☐ AP X Other
5. **Subject Area** **Non-Departmental**	11. **Is this a CTE course?** ☐ YES X NO **If YES, complete Section C**
6. **Department** Science	12. **Previously approved by UC?** ☐ YES X NO Year approved Year removed
13. UC ELIGIBILITY **Already eligible?** ☐**YES** **X NO** **a**☐ **b**☐ **c**☐ **d**☐ **e**☐ **f**☐ **g**☐ **Proposing eligibility? X YES** ☐**NO** **a**☐ **b**☐ **c**☐ **d**☐ **e**☐ **f**☐ **g**X Please mark one for approved eligibility or proposed eligibility.	14. **Unit Value/Course Credit/Length of Course** X 0.5 (semester or half-year) ☐ 1.0 (one year equivalent) ☐ 2.0 (two-year equivalent) ☐ Other
15. School Contact: Name: Heather Oshiro/Rachel England Phone: Email: hoshiro@slusd.us/rengland@slusd.us Position: counselor/teacher	
16. Signatures: Department Chair Principal:	**DISTRICT OFFICE USE ONLY** **Date approved by Board Curriculum Committee** **Date approved by Board**

SECTION B. COURSE CONTENT

17. Course Description

This semester-long elective is recommended for 9th, 10th, 11th and 12th grade students who are interested in possibly pursuing a career in the health/medical field. Through a process of project based learning, work based learning, and self-exploration, students will learn a new way of thinking about science, the health industry, themselves and their academic and career options. The course is designed to actively engage students in hands-on, minds-on learning integrating science, health, technology and 21st century skills (communication, creativity, critical thinking and collaboration). The health/medical fields covered will include mental health, sports medicine, emt/paramedic, allied health I&II, dentistry, biotechnology, medicine I&II, public health.

18. Course Goals and/or Major Student Outcomes

-Students will become familiar with the range of career opportunities in the health/medical field.
-Students will develop self-assessment and metacognitive strategies to aide them in self-advocacy and lifelong learning.
-Students will practice written, visual, and oral communication skills.
-Students will learn the science, medical terminology, practices, demands, and social issues involved in health careers through analysis, possible diagnosis, and treatment of case studies, current events, and historical events.
-Students will understand the academic and career decision making process.
-Students will become aware of the tools and resources available to them to best prepare them for high school as well as the transitions to postsecondary education and career.
-Students will build a resume and design a personal plan to achieve their academic and career goals.

19. Course Objectives (standards)

LS1.A Systems of specialized cells within organisms help perform essential functions of life. Any one system in an organism is made up numerous parts. Feedback mechanisms maintain an organism's internal conditions within certain limits and mediate behaviors.
LS1.B: Growth and Development of Organisms
In multicellular organisms individual cells grow and then divide via a process called mitosis, thereby allowing the organism to grow. The organism begins as a single cell (fertilized egg) that divides successively to produce many cells, with each parent cell passing identical genetic material (two variants of each chromosome pair) to both daughter cells. Cellular division and differentiation produce and maintain a complex

organism, composed of systems of tissues and organs that work together to meet the needs of the whole organism. (HS-LS1-4)

LS3.A: Inheritance of Traits

Each chromosome consists of a single very long DNA molecule, and each gene on the chromosome is a particular segment of that DNA. The instructions for forming species' characteristics are carried in DNA. All cells in an organism have the same genetic content, but the genes used (expressed) by the cell may be regulated in different ways. Not all DNA codes for a protein; some segments of DNA are involved in regulatory or structural functions, and some have no as-yet known function. (HS-LS3-1)

LS3.B: Variation of Traits

In sexual reproduction, chromosomes can sometimes swap sections during the process of meiosis (cell division), thereby creating new genetic combinations and thus more genetic variation. Although DNA replication is tightly regulated and remarkably accurate, errors do occur and result in mutations, which are also a source of genetic variation. Environmental factors can also cause mutations in genes, and viable mutations are inherited. (HS-LS3-2)

Environmental factors also affect expression of traits, and hence affect the probability of occurrences of traits in a population. Thus the variation and distribution of traits observed depends on both genetic and environmental factors. (HS-LS3-2),(HS-LS3-3)

Common Core State Standards Connections:

ELA/Literacy -

RST.11-12.1	**Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account. (HS-LS1-1)**
RST.11-12.9	**Synthesize information from a range of sources into a coherent understanding of a process, phenomenon, or concept resolving conflicting information when possible.**
WHST.9-12.2	**Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes. (HS-LS1-1)**
WHST.9-12.7	**Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. (HS-LS1-3)**

WHST.11-12.8	**Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.** ***(HS-LS1-3)***
WHST.9-12.9	**Draw evidence from informational texts to support analysis, reflection, and research. (HS-LS1-1)**
SL.11-12.5	**Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.** ***(HS-LS1-2)***

20. Course Outline

The BioHealth Pathway course provides students with real world, relevant information, activities, and experiences that will guide them through a process of discovery of science, themselves, the career options in the health field, and how to achieve their goals. The course will begin with a self-assessment. Students will practice self-reflection strategies and techniques to accurately and honestly inventory their skills, talents, interests, experiences, goals, knowledge of available programs of study and the requirements for admission.

At this point in the course students will be ready to dive deeper into exploration and discovery. Through analysis of science articles, medical case studies, and information from guest speakers, students will deepen their understanding of the health sciences: science concepts, medical terminology, range of health careers beyond "doctor" and "nurse", and the ethics of health issues.

After some time to self-reflect and process newly acquired knowledge, the instructor will meet with each student to choose an area (or areas) of focus to delve into more extensive research. Together, the student and instructor will monitor growth.

Each student will select an area that they think is the health career of their choice; this will be their major and/or career to explore. Using multiple resources, the students will research college major possibilities and/or a career of interest. This research will be relevant and real world. They will be required to investigate, and ideally visit, programs in the area as well as investigate job openings in the area which they choose to live. Students will also back plan so they can begin to prepare academically for the program of their choice. Once they have selected an area of focus and are more knowledgeable of the skills and expectations, the students will interview a health professional. The instructor will help guide the students in arranging and preparing for the interviews, but the interview process will be conducted completely by the student. Students will write a written summary and reflection of the interview process. Ideally, interview "results" will be presented and shared with the larger community.

At this point, students are ready to make some level of commitment to a health pathway. They will research post-secondary programs (2 and/or 4 year) and the requirements to be accepted to these programs. This information will be used to design a personal academic and career preparation plan.

To conclude this course, every student will complete a self-assessment which will include personal discoveries, areas of growth, areas to focus on, strategies learned to self-advocate, new talents/skills acquired and their value as future health professionals.

21. Instructional Materials:

Board approved required text

N/A

Supplementary materials

computer access; industry partners for field trips, guest speakers, professional interviews; fieldtrips to local community colleges and universities/colleges

22. Key Assignments

Class participation, weekly reflections, meetings with instructor, major and career exploration (research on self-selected field of interest), informational interview of a health professional, resume, self-assessment paper, final project: design personal pathway, academic program and career preparation

23. Instructional Methods and/or Strategies

The purpose of this course is to engage students in the discovery and learning process. This approach requires active student engagement and participation with the teacher acting as facilitator. Most of the learning will be project based, focusing on real world and relevant topics. Whole class activities will involve sharing ideas, knowledge, careful consideration and challenge of others' ideas, and supporting claims with evidence and reasoning. Individual study will be self-directed with support from teacher. Teacher will meet with individual students frequently to monitor progress and guide the process of self discovery. While the majority of the learning will be student centered, teacher planning and organization remain valuable requirements. In addition, as the learning is to be student led, the teacher must continuously adjust, amend, and supplement lessons and activities to meet the needs and interests of the students.

24. Assessment Methods and/or Tools

Students will be assessed using multiple measures: class participation, reflections, teacher conferences, major and career exploration research paper, interview (plan, preparation, paper), self-assessment paper, and final personal plan (academic and career).

25. Grading Policy

Grading will be follow the San Leandro Unified School District's policy. It is expected that assignments will be turned in on time. Late assignments will be accepted if student has communicated to teacher the reasons and actions taken to complete the work in a timely manner.

SECTION C

26. Context for Course (optional)

REQUIRED FOR CTE COURSES

NOTE: In order to understand the context for a new course, sometimes it is helpful to understand the broader educational program and/or reform efforts of the school. How does this course fit into broader departmental and/or pathway structure? How does it fit into the overall school restructuring plans? Is the course intended to be a core course or supplemental? What are the student/school/community needs met by this course?

The California Career Pathways Trust is supporting students throughout the state to develop pathways to academic and career success. This grant is supporting schools to "develop and integrate standards-based academics with a career-relevant, sequenced curriculum" as well as "provide articulated pathways to postsecondary education." As part of this work, San Leandro High School is developing a BioHealth Pathway. This elective course, the first step in the development of this pathway, was created to fill an area that does not exist here at San Leandro High School: a course providing the information, education and skills to explore, understand, and plan for college and career. This course will serve to educate San Leandro students, as well as their families, and will, hopefully, be used as a model for the other academies here at SLHS.

27. History of Course Development (optional)

REQUIRED FOR CTE COURSES

NOTE: Likewise, it is sometimes helpful know the origins of a course and who was involved in its development. Was this course modeled after another course at another school? If so, is that course UC approved? How does the course being submitted differ from the course after which it was modeled? Has this course received any special recognitions, designations or awards? Has it been articulated to local community colleges or universities?