

BS IN HEALTH SCIENCE



SACRAMENTO STATE

In Workflow

1. HHS College Committee Chair (andrea.becker@csus.edu)
2. HHS Dean (sac19804@csus.edu)
3. Academic Services (catalog@csus.edu)
4. Senate Curriculum Subcommittee Chair (curriculum@csus.edu)
5. Faculty Senate Executive Committee Chair (kathy.honeychurch@csus.edu)
6. Faculty Senate Chair (kathy.honeychurch@csus.edu)
7. Dean of Undergraduate (gardner@csus.edu)
8. Dean of Graduate (cnewsome@skymail.csus.edu)
9. President (khtudor@csus.edu)
10. Catalog Editor (catalog@csus.edu)
11. Registrar's Office (k.mcfarland@csus.edu)

Approval Path

1. Wed, 19 Feb 2025 04:13:18 GMT
Andrea Becker (andrea.becker): Approved for HHS College Committee Chair
2. Wed, 19 Feb 2025 04:15:18 GMT
Robert Pieretti (sac19804): Approved for HHS Dean

History

1. Apr 27, 2018 by clmig-jwehrheim
2. Sep 14, 2018 by 212408496
3. Feb 6, 2020 by Susan Perez (susan.perez)
4. Feb 6, 2020 by Janett Torset (torsetj)
5. Apr 28, 2020 by 220267334
6. Mar 29, 2021 by Andrea Becker (andrea.becker)
7. Apr 20, 2021 by 220267334
8. Apr 23, 2021 by Katie Hawke (katiedickson)
9. Aug 11, 2021 by Janett Torset (torsetj)
10. Aug 5, 2022 by 302822325
11. Aug 10, 2022 by 302822325

Date Submitted: Tue, 11 Feb 2025 22:49:25 GMT

Viewing: BS in Health Science

Last approved: Wed, 10 Aug 2022 20:00:12 GMT

Last edit: Wed, 19 Feb 2025 04:11:46 GMT

Changes proposed by: Andrea Becker (101053364)

Academic Group: (College)

Health & Human Services

Academic Organization: (Department)

College of Health & Human Services

Catalog Year Effective:

2026-2027 Catalog

Individual(s) primarily responsible for drafting the proposed degree major program:

Name (First Last)	Email	Phone 999-999-9999
Andrea Becker	andrea.becker@csus.edu	916-278-2637

Type of Program:

Major

Program Change Type:

Substantive

Delivery Format:

Hybrid

Fully Online

What is the instructional modality of all courses in this program?

Both

Title of the Program:

BS in Health Science

Designation: (degree terminology)

Bachelor of Science

Briefly describe the program proposal (new or change) and provide a justification:

This program proposal focuses on two objectives: (1) updating the current Health Science curriculum to provide students with a stronger foundation in healthcare-related courses (stateside), and (2) offering an online, self-support degree completion program that will serve adult, rural, and working professional learners.

The BS in Health Science program prepares students for a wide variety of careers in the allied health professions. National studies list healthcare degrees as one of the most in demand majors in the United States, a trend we have also observed at Sacramento State in the Health Science degree program as it has doubled within the first five years of being offered. With a multidisciplinary approach, the curriculum integrates critical knowledge and skills across the biological, physical, social, environmental, and computational sciences to provide students with a well-rounded understanding of both the scientific and human aspects of healthcare. This proposal adds a more robust set of healthcare related offerings, specifically at the upper division level, to help students better meet their upper division unit requirement and also reach the 120 units required to graduate. The new courses are informed by industry needs and common degree requirements of Health Science degrees at other US universities. Program learning outcomes were also updated to better reflect the degree program.

The degree completion program will facilitate meeting the demand for healthcare professionals by providing greater access to higher education, especially for learners in rural areas of northern California where there is a diminishing number of bachelor's level health programs and an increasing need for skilled healthcare workers. Many rural communities face challenges in accessing higher education and healthcare services, leading to a significant shortage of trained professionals in the field. By offering an online option for degree completion, this program will provide a much-needed pathway for students in these underserved areas to pursue a career in healthcare without having to relocate or commute long distances after attending their local community college. All course topics and learning outcomes originate from the resident BS in Health Science program, ensuring students receive the same learning outcomes regardless of delivery method.

The online program will be housed within the College of Continuing Education (CCE) and will operate on a self-supporting basis, allowing greater flexibility and accessibility to students in a cost-effective manner. Faculty teaching in this program will hold the same qualifications as those who teach in the on-campus program, with the additional requirement of demonstrating readiness to teach in an online setting. All faculty teaching in the program will receive training and ongoing support regarding best practices for online and hybrid instruction from CCE and e-learning support services offered on campus through the Center for Teaching and Learning, as well as within the CSU. Prospective students will be required to complete the lower division coursework at other universities or community colleges before enrolling in the upper division coursework offered online through the CCE program. The program will be structured in an accelerated 6-week schedule, which will allow students to complete multiple courses per semester and finish their degree in a timely manner. This format is designed to accommodate the needs of working adults and those with other responsibilities, providing the opportunity for students to advance their education without sacrificing their current employment or personal commitments.

The program has received strong support from several key community partners, including Shasta College (see attached letter), Marshall Hospital, and Raley's. Marshall Hospital, a critical healthcare provider in the region, has expressed interest in supporting clinical placements and internships for students, offering real-world experience that will enhance their employability. Raley's, a major employer in the area, is keen on collaborating to ensure the program meets local workforce needs. The creation of this online degree completion program in Health Science is a strategic response to the growing healthcare workforce shortage in Northern California.

University Learning Goals

Undergraduate Learning Goals:

Competence in the disciplines
 Knowledge of human cultures and the physical and natural world
 Intellectual and practical skills
 Personal and social responsibility
 Integrative learning

Program Learning Outcomes

Program Learning Outcomes

Learning Outcome

Describe and discuss the human biological systems, and the psychological and behavioral factors that impact human health.

Obtain, assess, and articulate relevant scholarly sources to support evidence-based professional practice:

1. Obtain and assess valid and relevant scholarly sources. (Info Literacy)
2. Interpret and apply quantitative reasoning using graphs, tables, or figures. (Quantitative Reasoning)
3. Apply evidence-based practices to evaluate and interpret research findings and clinical applications in healthcare. (Critical Thinking)
4. Compose an evidence-based research paper that demonstrates effective integration of health science research and adherence to quality writing standards.. (Written Communication)
5. Synthesize and present an oral analysis of health science knowledge, demonstrating professional communication and appropriate application of research findings. (Oral Communication)

Identify and discuss shared values and standards of professional conduct, engage in moral reasoning, and provide reasonable solutions for ethical dilemmas in professional practice settings.

Synthesize the sociocultural, economic, and environmental factors affecting human health, and propose evidence-based solutions to address these issues

Learning Outcomes Display

Course Code	PLO 1	PLO 2	PLO 3	PLO 4
BIO 25				
BIO 26	✓			
CHEM 6A				
CHEM 1A				
HLTH 6				
BIO 10				
BIO 39				
CHAD 30				
NUFD 10				
NURS 14				
PSYC 2				
SOC 1				
STAT 1				
STAT 10B				
HLTH 100	1✓	2✓	2✓	2✓
PUBH 114	✓	✓	✓	✓

PUBH 122	3✓	3✓	3✓	3✓
HLTH 140				
HTLH 141				
HLTH 142				
HLTH 143				
HLTH 144				
HLTH 145				
HLTH 146				
HLTH 147				
HLTH 148				
HLTH 149				
HLTH 151				
HLTH 152				
HLTH 154				
HLTH 159				
HLTH 160	3✓	3✓	3✓	3✓
HTLH 170				
HLTH 171				
ETHN 133				
GERO 103				
GERO 121				
GERO 122				
HLTH 156				
KINS 136				
PUBH 150	1✓	3✓	3✓	3✓
HTLH 152				
PHIL 102				
PHIL 104				
PHIL 105				
PUBH 124	1✓	3✓	3✓	3✓
SWRK 151				
BIO 104				
BIO 107				

BIO 123				
BIO 130				
BIO 131				
BIO 140				
COMS 161				
CSAD 101				
CSAD 110				
CSAD 130				
CSAD 133				
HLTH 141				
HLTH 170				
HLTH 195				
GERO 125				
KINS 126				
KINS 156				
KINS 157B				
NUFD 107				
NUFD 113				
NUFD 114				
NURS 160				
NURS 165				
NURS 166				
NURS 168				
NURS 181				
PHIL 106				
PHYS 182				
PSYC 149				
PSYC 168				
PUBH 112				
PUBH 130				
PUBH 134				
PUBH 151				
RT 111				

Will this program be required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

No

Please attach a Comprehensive Program Assessment Plan

BS_Health_Science_Assessment_February_2025.xlsx

Please attach a Curriculum Map Matrix

BS_Health_Sci_Matrix_February_2025.xlsx

Please attach a five-year budget projection

HLSC degree completion budget projection.pdf

Do these changes impact the degree roadmap?

Yes

Please attach the updated roadmap:

HLTH_Roadmap.pdf

Briefly describe the change:

The new roadmap accounts for the nine upper division units that were added to students' core requirements. In addition, courses that are historically a challenge for first year students (such as BIO and CHEM) were shifted out of the first semester in the roadmap to better ensure student success.

Catalog Description:**Units required for Major: 57-60****Total units required for BS: 120**

Program Description

The Bachelor of Science in Health Science program offers a rigorous and dynamic education, preparing students for a wide array of careers within the allied health professions. With a multidisciplinary approach, the curriculum integrates critical knowledge and skills across the biological, physical, social, environmental, and computational sciences. Students gain a well-rounded understanding of both the scientific and human aspects of healthcare.

The curriculum also equips students with the necessary pre-requisite courses to pursue graduate education or advanced training in high-demand fields such as Nursing, Physician Assistant Studies, Occupational Therapy, Sonography, Radiation Therapy, Emergency Medical Services, and more. With an extensive list of elective options, the program offers maximum flexibility for students to design an individualized course of study that uniquely matches their career aspirations, ensuring they are well-equipped for success in a broad range of health-related professions.

Note: Students graduating with a BS in Health Science are not subject to the University's Foreign Language Graduation Requirement. Students who change their major may be subject to the University's Foreign Language Graduation Requirement.

Admission Requirements: Course prerequisites and other criteria for admission of students to the degree major program, and for their continuation in it.

Minimum Grade Requirement

All courses must be completed with at least a "C-" grade.

Additional Information

Credit by Examination: A student who seeks course credit by examination is to enroll in the course to be challenged. No course may be challenged after the first two weeks of the semester. The instructor of the course will conduct an assessment of the student's readiness to challenge the course for credit examination. For more information, refer to the "Credit by Examination" section of the Sacramento State Catalog.

Advising: It is necessary for students to work closely with an advisor to complete the BS in Health Science degree in a timely manner. It is strongly recommended that all Health Science students consult with an advisor prior to enrolling in courses, and this should occur at least once per semester.

As defined by policy <http://www.csus.edu/umannual/acadaff/fsm00010.htm>, a change in units constitutes a substantive change to the program. If your changes constitute a substantive change, please refer back to the "Program Change Type" field above to ensure that "Substantive" is selected.

Program Requirements: (If new courses are being created as part of a new program, it will be useful to propose courses first.)

Program Requirements (57-60 Units)

Code	Title	Units
Required Lower Division Courses (57-60 Units)		
BIO 25 & BIO 26	Human Anatomy and Physiology I Human Anatomy and Physiology II	8
CHEM 6A	Introduction to General Chemistry ^{1, 2}	5

or CHEM 1A General Chemistry I

Required Lower Division Electives

Select two courses from the following Lower Division Electives:

5 - 7

HLTH 6	Medical Terminology for Health Professions
BIO 10	Basic Biological Concepts
BIO 39	Microbiology for Allied Health Students
CHAD 30	Human Development
NUFD 10	Introduction to Nutrition ¹
NURS 14	Pharmacology
PSYC 2	Introductory Psychology ¹
or SOC 1	Principles of Sociology
STAT 1	Introduction to Statistics ¹
or STAT 10B	Introductory Statistics with Developmental Mathematics

Required Upper Division Courses

HLTH 100	Introduction to Health Science (Introduction to Health Science)	3
PUBH 114	Human Ecology and Health ¹	3
PUBH 122	Health Psychology	3

*Select three of the following Health Science Courses:

9

HLTH 140	Course HLTH 140 Not Found (Diversity, Equity, and Inclusion in Healthcare)
HTLH 141	Course HTLH 141 Not Found (Interpersonal Dynamics in Healthcare)
HLTH 142	Course HLTH 142 Not Found (Leadership in Healthcare)
HLTH 143	Course HLTH 143 Not Found (Personal Wellness for Healthcare Professionals)
HLTH 144	Course HLTH 144 Not Found (History of Modern Medicine)
HLTH 145	Course HLTH 145 Not Found (Eastern Approaches of Health and Wellness)
HLTH 146	Course HLTH 146 Not Found (Naturopathic Approaches to Health and Wellness)
HLTH 147	Course HLTH 147 Not Found (Alternative Health Practices)
HLTH 148	Course HLTH 148 Not Found (Motivational Interviewing in Healthcare)
HLTH 149	Health and Disease Pathology (Health and Disease Pathology)
HLTH 151	Course HLTH 151 Not Found (Neurodiversity)
HLTH 152	Course HLTH 152 Not Found (Legal and Ethical Issues in Healthcare)
HLTH 154	Course HLTH 154 Not Found (Introduction to Traumatology)
HLTH 159	Course HLTH 159 Not Found (Entrepreneurship in Healthcare)
HLTH 160	Course HLTH 160 Not Found (Health Professions, Research, and Services)
HTLH 170	Course HTLH 170 Not Found (Introduction to Health Informatics)
HLTH 171	Course HLTH 171 Not Found (Artificial Intelligence in Healthcare)

Select one course from the following courses on Aging: (3 units)

3

ETHN 133	Crosscultural Aging in America 🌐
GERO 103	Applied Care Management in Gerontological Practice
GERO 121	Strategies for Optimal Aging
GERO 122	Interprofessional Approaches to Health Care in Older Adults
HLTH 156	Course HLTH 156 Not Found (Happiness and Quality of Life Over the Lifespan)
KINS 136	Sport And Aging
PUBH 150	Aging and Health

Select one course from the following courses on Ethical Practices: (3 units)

3

HTLH 152	Course HTLH 152 Not Found (Legal and Ethical Issues in Healthcare)
PHIL 102	Professional and Public Service Ethics ¹
PHIL 104	Bioethics ¹
PHIL 105	Science and Human Values ✎ ¹
PUBH 124	Ethical Considerations in Public Health ✎
SWRK 151	Health Services and Systems ¹

Required Health Science Electives

Select five courses from the following elective courses:

15 -

16

BIO 104	Physiology of Human Reproduction
BIO 107	Gastrointestinal Physiology
BIO 123	Neuroanatomy

BIO 130	Histology
BIO 131	Systemic Physiology
BIO 140	Medical Microbiology and Emerging Infectious Diseases
COMS 161	Health Communication
CSAD 101	Introduction to Communication Sciences and Disorders
CSAD 110	Physics of Sound and Phonetics
CSAD 130	Introduction to Audiology
CSAD 133	Introduction to Aural Rehabilitation
HLTH 140	Course HLTH 140 Not Found (Diversity, Equity, and Inclusion in Healthcare)
HLTH 141	Course HLTH 141 Not Found (Interpersonal Dynamics in Healthcare)
HLTH 142	Course HLTH 142 Not Found (Leadership in Healthcare)
HLTH 143	Course HLTH 143 Not Found (Personal Wellness for Healthcare Professionals)
HLTH 144	Course HLTH 144 Not Found (History of Modern Medicine)
HLTH 145	Course HLTH 145 Not Found (Eastern Approaches to Health and Wellness)
HLTH 146	Course HLTH 146 Not Found (Naturopathic Approaches to Healthcare)
HLTH 147	Course HLTH 147 Not Found (Alternative Health Practices)
HLTH 148	Course HLTH 148 Not Found (Motivational Interviewing in Healthcare)
HLTH 149	Health and Disease Pathology (Health and Disease Pathology)
HLTH 151	Course HLTH 151 Not Found (Neurodiversity)
HLTH 152	Course HLTH 152 Not Found (Legal and Ethical Issues Issues in Healthcare)
HLTH 154	Course HLTH 154 Not Found (Introduction to Traumatology)
HLTH 156	Course HLTH 156 Not Found (Happiness and Quality of Life Over the Lifespan)
HLTH 159	Course HLTH 159 Not Found (Entrepreneurship in Healthcare)
HLTH 160	Course HLTH 160 Not Found (Health Professions, Research, and Services)
HLTH 170	Course HLTH 170 Not Found (Introduction to Health Informatics)
HLTH 171	Course HLTH 171 Not Found (Artificial Intelligence in Healthcare)
HLTH 195	Course HLTH 195 Not Found (Internship)
GERO 125	Moving Toward Equity in California Aging Policy and Practice
KINS 126	Sleep, Health and Athletic Performance
KINS 156	Care Of Athletic Injuries
KINS 157B	Therapeutic Exercise for Chronic Conditions
NUFD 107	Nutrition Education, Communication, and Counseling
NUFD 113	Nutrition And Metabolism
NUFD 114	Cultural and Social Aspects of Food 🌱
KINS 156	Care Of Athletic Injuries
NURS 160	Human Sexuality
NURS 165	Hospice and Palliative Nursing Care 🌱
NURS 166	Course NURS 166 Not Found (Health Careers at California Correctional Facilities)
NURS 168	The Brain and Gender-Related Differences
NUFD 113	Nutrition And Metabolism ¹
NURS 181	Research as the Foundation for Evidence-Based Nursing Practice
PHIL 106	Philosophy of Medicine
PHYS 182	Physics of Sports ¹
PSYC 149	Psychology of Adolescence
PSYC 168	Abnormal Psychology
PUBH 112	Disease Prevention
PUBH 130	Alcohol and Other Drugs
PUBH 134	Understanding Human Sexuality
or NURS 160	Human Sexuality
PUBH 151	Introduction to the U.S. Healthcare System
RT 111	Course RT 111 Not Found (Disability in Healthcare)

Total Units**57-60**¹ Course also satisfies General Education (GE)/Graduation Requirement.² Any 4 or 5 unit lecture-based Chemistry course

Note: Health Science courses depend upon concentration, permission of the faculty advisor, program coordinator, and department chair.

General Education Requirements ¹

Code	Title	Units
Area A: Basic Subjects (9 Units)		
A1 - Oral Communication		3
A2 - Written Communication		3
A3 - Critical Thinking		3
Area B: Physical Universe and Its Life Forms (6 Units)		
B1 - Physical Science ²		0
B2 - Life Forms		3
B3 - Lab (Note: Lab experience to be taken with one of the following: B1, B2 or B5 ²)		0
B4 - Math Concepts ²		0
B5 - Additional Course (Any B to reach 12 units) - Take upper-division course to complete Area & upper division requirements.		3
Area C: Arts and Humanities (12 Units)		
C1 - Arts		3
C2 - Humanities		3
C1/C2 - Area Course C		3
C1/C2 - Area C Course - Take upper-division course to complete Area & upper division requirements.		3
Area D: The Individual and Society (6 Units)		
Area D Course		3
Area D Course		3
Area D Course - Take upper-division course to complete Area & upper division requirements. ²		0
Area E: Understanding Personal Development (3 Units)		
Area E Course		3
Area F: Ethnic Studies (3 Units)		
Area F Course		3
Total Units		39

¹ To help you complete your degree in a timely manner and not take more units than absolutely necessary, there are ways to use single courses to meet more than one requirement (overlap). For further information, please visit the General Education page (<https://catalog.csus.edu/colleges/academic-affairs/general-education/>).

Note: There is no way to list all possible overlaps so please consult with a professional advisor. The Academic Advising Center can be visited online (<http://www.csus.edu/acad/>), by phone (916) 278-1000, or email (advising@csus.edu).

² Required in Major; also satisfies GE.

Graduation Requirements ¹

Code	Title	Units
Graduation Requirements (required by CSU) (9 Units)		
American Institutions: U.S. History		3
American Institutions: U.S. Constitution & CA Government		3
Writing Intensive (WI)		3
Graduation Requirements (required by Sacramento State) (6 Units)		
English Composition II		3
Race and Ethnicity in American Society (RE)		3
Foreign Language Proficiency Requirement ²		0

¹ To help you complete your degree in a timely manner and not take more units than absolutely necessary, there are ways to use single courses to meet more than one requirement (overlap). For further information, please visit the General Education page (<https://catalog.csus.edu/colleges/academic-affairs/general-education/>).

Note: There is no way to list all possible overlaps so please consult with a professional advisor. The Academic Advising Center can be visited online (<http://www.csus.edu/acad/>), by phone (916) 278-1000, or email (advising@csus.edu).

² If not satisfied before entering Sacramento State, it may be satisfied in General Education Area C2 (Humanities). "C- or better required." The alternative methods for satisfying the Foreign Language Proficiency Requirement are described here: <https://www.csus.edu/college/arts-letters/world-languages-literatures/foreign-language-requirement.html>

Note: Students with a declared major of BS in Health Science (Occupational Health and Safety), BS in Health Science (Health Care Administration), or BS in Health Science (Community Health Education) are exempt from the Foreign Language Graduation Requirement.

Fiscal Impact to Change an Existing Program

Indicate programmatic or fiscal impact which this change will have on other academic units' programs, and describe the consultation that has occurred with affected units:

- Existing Health Science Program: No fiscal impact is expected from the changes to the existing program offered to resident students. Relevant departments were consulted, and courses were added or removed per each department's suggestions (e.g., GERO, NUFD, PHIL, BIO, PUBH). Please see attached consultation.
- Degree Completion Program: There will be no fiscal impact. The proposed program will be administratively supported by the College of Continuing Education using self-support funds (generated by course fees). No fiscal resources will be used without appropriate reimbursement to the general fund.

Attach a copy of correspondence with these units:

HLTH_Consultation_Combined.pdf

Provide a fiscal analysis of the proposed changes:

- Existing Health Science Program: The HLTH courses that were added to the curriculum will be supported by current faculty/instructors within the College of Health and Human Services. More specifically, faculty course loads from the Departments of RPTA, KINS, and PUBH will be modified to accommodate changes within the Health Science Program and across the college. These changes will influence modified teaching schedules for 2 tenure track faculty, 1 full-time lecturer, and 5 part-time lecturers. Thus, we do not anticipate these curricular changes to have a fiscal impact.
- Degree Completion Program: See attached budget.

How will the above changes be accommodated within the department/College existing fiscal resources?

- Existing Health Science Program: There will be no change in the administrative support for this program.
- Degree Completion Program: The proposed program will be administratively supported by the College of Continuing Education using self-support funds (generated by course fees). All program expenses will be paid for through the self-support course fees, including instructional/faculty salaries (faculty additional employment), program director (faculty additional employment), supplies and services, program-related travel, indirect expenses and overhead, etc.

Will the proposed changes require additional resources?

No

What additional space, equipment, operating expenses, library, computer, or media resources, clerical/technical support, or other resources will be needed?

- Existing Health Science Program: No additional resources are necessary.
- Degree Completion Program: As stated above, the proposed program will be self-supported by course fees and these course fees must cover all program expenses including indirect expenses and overhead. Administrative support coordination, admissions, marketing, outreach, recruitment, recordkeeping, procurements, and technical support will be provided by CCE. This program will be delivered 100% online. As is the case with all CCE programs, a percentage of the funds collected are returned to the university to support the library and IRT, for example.

Estimate the cost and indicate how these resource needs will be accommodated:

- Existing Health Science Program: N/A
- Degree Completion Program: See attached budget.

Please attach any additional files not requested above:

Shasta_College_Support_Letter.pdf
Health_Science_Degree_Completion_Admission_Criteria.pdf

Key: 278