

HEALTH SCIENCE
Environmental/Occupational Health and Safety Option, B.S. (120 Units)
Valid for Catalog Years: 2021/2022 to 2024/2025

Health Science Core Program Requirements	15 Units □
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PH 92: Public Health Statistics (3) (GE Area B4 – Catalog Year 2022 and After)	_____
PH 109: Epidemiology of Disease (3) (<i>Pre-Requisite:</i> PH 92, MATH 11, PSYCH 42, or DS 73)	_____
PH 135: Introduction to Human Disease (3)	_____
PH 161: Environment and Human Health (3) (GE Area IB – Catalog Year 2018 and After)	_____
PH 163: Public Health Administration (3)	_____

Environmental/Occupational Health and Safety Option Requirements	12 Units □
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PH 143: Occupational Safety (3)	_____
PH 160: Principles of Toxicology (3)	_____
PH 162: Environmental Health Concepts (3) (<i>Pre-Requisite:</i> PH 161) (FALL ONLY)	_____
PH 168A: Occupational Health Concepts (3) (FALL ONLY)	_____

Environmental/Occupational Health and Safety Additional Requirements	38-42 Units □
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BIOL 1A: Introductory Biology (4) (GE Area B2)	_____
BIOL 1B/1BL: Introductory Biology + Laboratory (4)	_____
OR BIOL 33: Introductory Human Anatomy and Physiology (5)	_____
BIOL 20: Introductory Microbiology (4)	_____
OR BIOL 120: Microbiology (4)	_____
CHEM 1A/1AL: General Chemistry 1A + Laboratory (5) (GE Area B1)	_____
CHEM 1B/1BL: General Chemistry 1B + Laboratory (4)	_____
CHEM 8: Elementary Organic Chemistry (3)	_____
OR CHEM 128A: Organic Chemistry (3)	_____
MATH 70: Calculus for Life Sciences (4)	_____
OR MATH 75: Calculus 1 (4) (GE Area B4) (<i>Pre-Requisite:</i> Calculus Placement Required)	_____
PHYS 2A: General Physics (4) (GE Area B1) (<i>Pre-Requisite:</i> MATH 6 or DS 71 or MATH 75 or MATH 70)	_____
PHYS 2B: General Physics (4) (<i>Pre-Requisite:</i> PHYS 2A)	_____
PH 175I: Environmental Internship (4) (<i>Pre-Requisite:</i> Completion of 21 units in Core and Environmental Option Courses)	_____

Environmental/Occupational Health and Safety Option Elective Requirements	9 Units □
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Select a minimum of three courses (9 units)

PH 105: Risk Assessment and Analysis (3) (FALL ONLY)	_____
PH 145: Occupational and Environmental Systems Management (3)	_____
PH 151: Health Law and Legislation (3) (FALL ONLY)	_____
PH 164: Vector Control (3)	_____
PH 166T: Topics in Environmental Health (3)	_____
PH 167: Public Health Laboratory Techniques (3)	_____
PH 168B: Occupational Health Evaluation (3) (SPRING ONLY)	_____
PH 170: Air Pollution and Health (3)	_____

Total Units Required in Major	74-78 units
Total Units Required in General Education	49 units
Electives needed	0-9 units

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For assistance or to schedule an advising appointment, please contact the **CHHS Advising and Career Development Center:** 559-278-5027, McLane Hall 194

Student Name: _____

Student ID: _____

Catalog Year: _____

	Year 1 (Freshman)		Year 2 (Sophomore)		Year 3 (Junior)		Year 4 (Senior)	
	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Major	GE Area B4 MATH 70 or 75 (4 Units)	GE Area B4 PH 92 (3 Units)	GE Area B1 CHEM 1A/1AL (5 Units)	PH 109 (3 Units)	CHEM 8 or CHEM 128A (3 Units)	BIOL 20 or BIOL 120 (3-4 Units)	PHYS 2A (4 Units)	PHYS 2B (4 Units)
	GE Area B2 BIOL 1A (4 Units)	BIOL 1B/L or BIOL 33 (4-5 Units)		CHEM 1B/1BL (5 Units)	GE Area IB PH 161 (3 Units)	PH 160 (3 Units)	PH 143 (3 Units)	PH 175 (1-4 Units)
	<i>Lower Division GE</i>	<i>Lower Division GE</i>	<i>Lower Division GE</i>		<i>Upper Division GE</i>	PH 163 (3 Units)	PH 135 (3 Units)	<i>PH Elective</i>
	<i>Lower Division GE</i>	<i>Lower Division GE</i>	<i>Lower Division GE</i>	<i>Lower Division GE</i>	<i>UDWS</i> (W Course or Exam)	<i>PH Elective</i>	PH 162 (3 Units)	<i>PH Elective</i>
	<i>Lower Division GE</i>	<i>American Government</i>	<i>Lower Division GE</i>	<i>Lower Division GE</i>	<i>Multicultural International (MI)</i>	<i>Upper Division GE</i>	PH 168A (3 Units)	<i>General Elective</i>
Milestones		PH 92 Completed			Additional Requirements Completed		Completion of Core Courses	

Elective Options:

Biology Minor Requirements

Required Courses (22 Units)

- ☐ BIOL 1A – Introductory Biology (4 units)
- ☐ BIOL 1B and 1BL – Introductory Biology/Laboratory (4 units)
- ☐ BIOL 101 – General Ecology (4 units)
- ☐ BIOL 102 – Genetics (3 units)
- ☐ BIOL 103 – Cellular Biology (3 units)
- ☐ BIOL 104 – Genetics and Cell Biology Lab (1 unit)
- ☐ BIOL 105 – Evolution (3 units)

Chemistry Minor Requirements

Required Courses (11-12 Units)

- ☐ CHEM 1A & 1AL – General Chemistry and Laboratory (5 units)
- ☐ CHEM 8 – Elementary Organic Chemistry (3 units)
- ☐ CHEM 105 – Quantitative Analysis Laboratory (4 units)

Additional Upper Division Chemistry Courses (9-10 Units)

Advising Notes

- A minimum grade of C is required in all Health Science core courses and all core option courses.
- CR/NC grading is not permitted in courses for the Health Science major, except in those courses which are designated CR/NC grading only.
- Courses taken within the Public Health major may be used toward general education requirements, a minor (see departmental minors) or a supplemental credential. Consult the appropriate department advisor for further information.

2024-2025 GENERAL EDUCATION (G.E.) REQUIREMENTS

NOTES: A minimum of 48 G.E. units are required. All classes are three or more semester units. Engineering and Liberal Studies majors complete a different G.E. Pattern—consult department advisor. GE courses may change annually. It is recommended to run your Degree Progress Report (DPR) before and after you register to ensure courses you are registered for satisfy the intended GE Area(s).

♦ FOUNDATION

Four courses: One in A1, one in A2, one in A3, & one in B4 for a minimum of 12 units.

FOUNDATION courses must be satisfied with a minimum of "C" grade.

Area A - Fundamental Skills and Knowledge

A1 Oral Communications: Communication 3, 7, 8

A2 Written Communication: (Pre-Requisite for English 5B is Passing 5A) English 5B, 5BML, 10, 10ML

A3 Critical Thinking: Africana Studies 20; Anthropology 30; Asian American Studies 88; Chicano & Latin American Studies 30; College of Science and Math 10; Communication 5; Geography 25; Interdisciplinary 50; Natural Science 4; Philosophy 24, 45; Sociology 3, 3S; Women's, Gender, & Sexuality Studies 12

B4 Quantitative Reasoning: (Co-Requisite or Pre-Requisite Math Courses May Be Required; Check with an Advisor) Criminology 50; Decision Science 71, 72; Mathematics 6, 11, 11L, 45, 45L, 70, 75A; Psychology 42; Public Health 92

Course/
Units/Grade

A1 _____

A2 _____

A3 _____

B4 _____

♦ BREADTH

Area B - Fundamental Skills and Knowledge

Two Courses: One in B1 and one in B2 - See above for B4

B1 Physical Sciences: (Pre-Requisite: Completion of B4) Chemistry 1A & 1AL, 3A, 10; Earth & Environmental Sciences 1, IV, 4, 5; Geography 5*, 7*;
Physical Science 21; Physics 2A, 4A & 4AL, 10

B2 Life Sciences: Biology 1A, 10, 11, 12

B3 Laboratory Component: B1 or B2 must have a lab (*Courses do not have a lab component)

B1 _____

B2 _____

B3 _____

Area C - Arts and Humanities

Three Courses: One in C1, one in C2, and a third from C1 or C2

C1 Arts: Armenian Studies 20; Art 1, 20, 40, 50; Art History 10, 11, 12; Chicano & Latin American Studies 9; Drama 22, 62; English 41, 43, 44; Media, Communications & Journalism 9; Music 9 (not for music majors), 9A, 74, 75

C2 Humanities: Arabic 1A, 1B; Armenian 1A, 1B, 2A; Chinese 1A, 1B; Communicative Sciences & Deaf Studies 90, 92; English 20, 30; French 1B, 2A, 2B; German 1B, 2A, 2B; Greek 1A, 1B; Hebrew 1A; Hmong 1A, 1B; Humanities 10, 11, 15, 20; Italian 1A, 1B, 2A, 2B; Japanese 1A, 1B; Latin 1A, 1B; Linguistics 10, Persian 1A, 1B; Philosophy 1, 2, 10, 20; Portuguese 1A, 1B; Spanish 1B, 2A, 2B, 3, 4A, 4B

C1 _____

C2 _____

C1 or
C2 _____

Area D - Social, Political & Economic Institutions and Behavior, Historical Background

One course in each sub-area (Pre-Requisite: GE Foundation A2 for students in English college-readiness Category III and IV)

D1 American History: History 11, 12

D2 Social Science: Africana Studies 36; Agricultural Business 1; American Indian Studies 50; Anthropology 2, 3; Armenian Studies 10; Asian American Studies 7, 166; Child & Family Science 31; City & Regional Planning 80; Communicative Sciences & Deaf Studies 98; Criminology 10; Economics 25, 40, 50; Geography 2, 4; History 20, 21; Industrial Technology 20; Jewish Studies 10; Media, Communications & Journalism 1; Middle East Studies 10; Political Science 1; Psychology 10; Sociology 1 or 1S; Women's, Gender, & Sexuality Studies 10, 11, 166

D1 _____

D2 _____

Area E - Lifelong Understanding & Self-Development One course

Animal Science 67; Art 13; Asian American Studies 8; Child & Family Sciences 38, 39; College of Science and Math 15; Dance 16, 70; Drama 32; Finance 30; Gerontology 10S, 18, 111; Kinesiology 32 & Concurrent Enrollment in any KAC; Linguistics 30; Nutrition 53; Peace and Conflict Studies 110; Psychology 61; Public Health 90, 91, 110; Recreation Administration 80; University 1; Women's, Gender, & Sexuality Studies 18

E _____

Area F - Ethnic Studies One course

Africana Studies 10, 15, 27, 40, 68; American Indian Studies 5, 10, 103; Anthropology 120, 175; Asian American Studies 10, 15, 20, 50, 108, 120, 143, 175, 185; Chicano & Latin American Studies 3, 5, 120, 128, 163; Media, Communications, & Journalism 6; Philosophy 108

F _____

UPPER DIVISION G.E. CONSISTS OF 9 UNITS

IB, IC, & ID courses can be taken no sooner than the term in which 60 units of coursework are completed.

♦ INTEGRATION Three Upper Division – One in Each Area

IB - Physical Universe & Its Life Forms: (Pre-Requisite: Completion of FOUNDATION and Area B)

Anthropology 161; Chemistry 170; Civil Engineering 121; Computer Science 100, 100N; Earth & Environmental Science 102S, 112, 167, 168; Geography 115, 128, 129; Natural Science 115, 120, 121, 125; Physical Science 131, 168; Physics 100; Plant Science 105; Public Health 161; Sociology 158

IB _____

IC - Arts & Humanities: (Pre-Requisite: Completion of FOUNDATION and Area C)

Africana Studies 129; Architectural Studies 145; Armenian 148; Art 102; Art History 140; Arts & Humanities 105; Asian American Studies 148; Chicano & Latin American Studies 130; Dance 171; Drama 163; English 101, 102, 103, 112, 113, 114, 174; French 109, 124, 125, 149; Humanities 104, 108, 110, 118, 120, 129; Interdisciplinary Art Studies 108; Italian 110, 130; Jewish Studies 108; Linguistics 115, 130, 138; Media, Communications, & Journalism 183; Music 170A, 171, 187; Philosophy 120, 150, 151; Portuguese 101, 102, 103; Spanish 125, 129; Women's, Gender, & Sexuality Studies 110, 111

IC _____

ID - Social, Political, & Economic Institutions & Behavior, Historical Background: (Pre-Requisite: Completion of FOUNDATION, Area D, and PLSI 2)

Africana Studies 144; Agricultural Business 155; Anthropology 116W, 145; Art History 143; Asian American Studies 111, 121, 122, 155; Chicano & Latin American Studies 114, 115; City & Regional Planning 125; Civil Engineering 161; Construction Management 124; Criminology 101, 120, 120S; Curriculum & Instruction 152; Earth and Environmental Sciences 115S; Economics 146, 167, 176, 183; Electrical & Computer Engineering 118; Forensic Behavioral Science 153; Geography 133, 173; Gerontology 100; History 101, 154; Jewish Studies 122; 154; Kinesiology 111; Media, Communications & Journalism 101, 175, 178, 180; Peace & Conflict Studies 100, Social Science 110; Sociology 131, 143, 163; Women's, Gender, & Sexuality Studies 101, 124, 149, 155

ID _____

Total Units _____

07/10/24

Graduation Requirements

PLANNING YOUR DEGREE

- ☐ Meet with an Academic Counselor to complete a My Degree Plan (roadmap)
- ☐ Units per semester to graduate:
4 years: 15 units x 8 semesters = 120 units
5 years: 12 units x 10 semesters = 120 units
- ☐ Complete your US and California Government requirement during your sophomore year
- ☐ Complete your upper-division writing skills during your junior year (60 - 90 units)
- ☐ Complete your Application for Degree and pay the fee during the first four weeks of your final semester

- ♦ 120 unit minimum—comprised of:
 - 48 General Education (or modified version per Major)
 - Major
 - Electives if needed to reach 120 units (minor/certificate/other)

- ♦ 2.00 GPA in:
 - Major
 - Campus units
 - Cumulative units

- ♦ Specific course requirements:
 - English Composition (GE Area A2—English 5A & 5B, 10 or equivalent) -
 - US History (GE Area D1—History 11, 12 or equivalent) -
 - US and California Government -

Courses: Political Science 2, or equivalent course

- Multicultural/International course (M/I) -

Completed Course: _____

Courses: Africana Studies 143, 150, 164; Anthropology 105W, 120, 123, 125; Art History 141, 142; Asian American Studies 110, 110S, 138, 140; Business Administration 104; Capstone 177, 188S; Chicano & Latin American Studies 160, 170; Communication 164; Child & Family Science 134; Communicative Disorders & Deaf Studies 139; Economics 181; Geography 167, 174; Gerontology 161; History 186; Humanities 105, 140; Italian 100; Jewish Studies 143; Linguistics 147; Media, Communications & Journalism 176, 179; Marketing 100S; Music 171A; Nursing 141, 141LS; Public Health 104, 128S; Philosophy 131, 132; Political Science 120; Recreation Administration 130; Social Sciences 180; Sociology 111, 142; Social Work 136; Women's, Gender, & Sexuality Studies 120, 122, 135

- ♦ Writing Skills Requirement:

Completed Course: _____

- Upper-division writing skills -

Courses: Africana Studies 104W; Agricultural Business 170WS; American Indian Studies 105WS; Anthropology 105W, 116W, 126W; Asian American Studies 151W, 161W; Aerospace Studies 105AW*, 105BW; Biology 118W; Business Administration 105W; Chemistry 161W*; Chicano & Latin American Studies 102W; Economics 102W; Earth & Environmental Sciences 104W, 135W; English 106W, 115W, 117W*, 160W, 170W; Engineering 105W*; Health & Human Services 116W; History 100W*; Industrial Technology 198W; Jewish Studies 100W; Literacy & Early Education 180W; Linguistics 110W*, 111W; Media, Communications & Journalism 102W*, 114W*, 155SW, 158WS; Philosophy 125W, 133W; Plant Science 110W; Political Science 100W; Sociology 130W, 130WS; Women's, Gender, & Sexuality Studies 118W

Note: a few majors require a specific "W" course; see catalog requirements for your major

Completed Course: _____

*Enrollment may be restricted or have additional prerequisites. Check the course description in the catalog or my.fresnostate.edu

- ♦ Fresno State Residency unit minimums:

- 30 units
- 24 upper-division units
- 12 units in major
- 9 General Education units

Please Note: General Education course area completion is based on which area the course fulfills during the semester the course is completed, not catalog year. Be sure to double check courses are completing the intended area using the class search or degree progress report (DPR).