

HEALTH SCIENCE
Environmental/Occupational Health and Safety Option, B.S. (120 Units)
Valid for Catalog Years: 2014/2015 to 2018/2019

Health Science Core Program Requirements	15 Units □
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- PH 92: Public Health Statistics (3) _____
- PH 109: Epidemiology of Disease (3) (*Pre-Requisite:* 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 162A: Environmental Health Concepts (3) (**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) _____
- 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**) (*Pre-Requisite:* Calculus Placement Required) _____
- PHYS 2A: General Physics (4) (**GE Area B1**) (*Pre-Requisite:* MATH 6 or DS 71 or MATH 75 or MATH 70) _____
- PHYS 2B: General Physics (4) (*Pre-Requisite:* PHYS 2A) _____
- PH 175I: Environmental Internship (4) (*Pre-Requisite:* 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 135: Introduction to Human Disease (3) _____
- PH 141: Applied Ergonomics (3) (**FALL ONLY**) _____
- PH 143: Occupational Safety (3) _____
- PH 145: Occupational and Environmental Systems Management (3) _____
- PH 151: Health Law and Legislation (3) (**FALL ONLY**) _____
- PH 162B: Environmental Health Application (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

1999-2017 GENERAL EDUCATION (G.E.) REQUIREMENTS

NOTES: **A minimum of 51 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.

◆ 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 "C" grade.

Area A - Fundamental Skills and Knowledge

- A1 Oral Communication:** Communication 3, 7, 8
A2 Written Communication: (Prerequisite for English 5B is passing 5A) English 5B, 10
A3 Critical Thinking: Africana Studies 20; Anthropology 30; Chicano & Latin American Studies 30; College of Science & Math 10; Communication 5; Computer Science 1; Geography 25; Interdisciplinary 50; Natural Science 4; Philosophy 25, 45; Sociology 3, 3S; Women's Studies 12
B4 Quantitative Reasoning: (Prerequisite: ELM of 50 or higher or pass remediation) Criminology 50, Decision Sciences 71; Mathematics 11, 45, 70, 75, 75A

Course/Units/Grade

A1 _____
 A2 _____
 A3 _____
 B4 _____

◆ BREADTH

A maximum of two courses from one department or program may be applied to satisfy **BREADTH** requirements.

Area B - Physical Universe and Its Life Forms

Two courses: One in B1 and one in B2--see above for B4

- B1 Physical Sciences:** (Prerequisite: Completion of B4) Chemistry 1A & 1AL, 3A, 10; Earth & Environmental Sciences 1, 1V, 4; 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 (All B1 and B2 courses taken at Fresno State have a mandatory 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; Chicano & Latin American Studies 9; Drama 22, 62; English 41, 43, 44; Music 9, 74, 75
C2 Humanities: Arabic 1A, 1B; Armenian 1A, 1B, 2A; Chinese 1A, 1B; Communicative Disorders & 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, 1AH, 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 & Behavior, Historical Background

One course in each sub-area (Prerequisite: Completion of A2 for those with EPT score below 147)

- D1 American History:** History 11, 12
D2 American Government: Political Science 2
D3 Social Science: Africana Studies 10, 15, 27; Agricultural Business 1; American Indian Studies 50; Anthropology 2, 3; Armenian Studies 10; Asian American Studies 15; Child & Family Studies 31; Chicano & Latin American Studies 3, 5; Communicative Disorders & Deaf Studies 98; Criminology 10; Economics 25, 40, 50; Geography 2, 4; History 20, 21; Industrial Technology 20; Jewish Studies 10; MCJ 1; Middle East Studies 10; Political Science 1; Psychology 10; Sociology 1 or 1S; Women's Studies 10

D1 _____
 D2 _____
 D3 _____

Area E - Lifelong Understanding and Self-Development Three units

- E Lifelong Understanding & Self-Development:** Animal Science 67; Art 13; Child & Family Studies 38, 39; College of Science & Math 15S; Dance 16, 70; Drama 32; Finance 30; Gerontology 10S, 18, 111; Kinesiology 32 & concurrent enrollment in KAC 6, 21, 24, 31, 33, 39, or 103; Linguistics 30; Nutrition 53; Peace and Conflict Studies 110; Psychology 61; Public Health 90, 91, 110; Recreation Administration 80; University 1; Women's Studies 18

E _____

UPPER DIVISION G.E. CONSISTS OF 12 UNITS

IB, IC, ID, and MI courses can be taken no sooner than the term in which 60 units of coursework are completed. They may **not** be selected from the primary major department.

◆ INTEGRATION Three upper division courses--one in each area

- IB Physical Universe and Its Life Forms:** (Prerequisite: Completion of FOUNDATION and Area B)
 Anthropology 161; Chemistry 170; Computer Science 100; Earth & Environmental Sciences 112, 167, 168; Geography 115, 128; Natural Science 115, 120, 121, 125; Physical Science 131, 168; Physics 100; Plant Science 105; Public Health 161
IC Arts and Humanities: (Prerequisite: Completion of FOUNDATION and Area C)
 Africana Studies 129; Armenian 148; Art 102; Arts & Humanity 105; Dance 171; Drama 163; English 101, 102, 103, 112, 113, 114, 174; French 109, 149; Humanities 104, 108, 110, 118; Interdisciplinary Art Studies 108; Linguistics 115, 130, 138; Music 170A, 171, 187; Philosophy 120, 150, 151; Spanish 125, 129
ID Social, Political and Economic Institutions and Behavior, Historical Background:
 (Prerequisite: Completion of FOUNDATION and Area D) Africana Studies 144; Agricultural Business 155; American Indian Studies 103; Anthropology 116W, 145; Chicano & Latin American Studies 114; Criminology 101, 120, 153; Economics 146, 167, 176, 183; Geography 173; Gerontology 100; History 101, 154; Jewish Studies 154; Kinesiology 111; MCJ 178; Peace and Conflict Studies 100; Social Science 110; Sociology 131, 143, 163; Women's Studies 101, 149

IB _____
 IC _____
 ID _____

◆ MULTICULTURAL/INTERNATIONAL One upper division course

- MI** (Prerequisite: Completion of FOUNDATION and Area D)
 Africana Studies 150, 164; Anthropology 105W, 120, 123, 125; Asian American 110; Business Administration 104; Chicano & Latin American Studies 160, 170; Communication 164; Communicative Disorders & Deaf Studies 139; Economics 181; Geography 167; Gerontology 161; History 186; Humanities 105, 140; Interdisciplinary Capstone 177, 188S; Linguistics 147; Marketing 100S; MCJ 175, 176, 179; Philosophy 131, 132; Political Science 120; Public Health 104, 128; Recreation Administration 130; Social Science 180; Social Work 136; Sociology 111, 142; Women's Studies 110, 120, 135

MI _____

TOTAL UNITS _____