

DEPARTMENT OF CROP, SOIL, AND ENVIRONMENTAL SCIENCES

Major in Environmental Soil and Water Science

Check Sheet for Environmental Soil and Water Science (ESWS) Major

2022-2023

University Requirements: 1 hour²

- ☐ UNIV 1001 University Perspectives

Communications: 12 hours

- ☐ ENGL 1013 Composition I
☐ ENGL 1023 Composition II
☐ COMM 1313 Public Speaking
☐ ACOM 3143 Communicating Agriculture to the Public **OR**
☐ CSES 3023 Crop, Soil and Environmental Sciences Colloquium

US History or Government: 3 hours

- ☐ HIST 2003 **or** HIST 2013 **or** PLSC 2003

Mathematics: 6 hours

- ☐ MATH 1203 College Algebra
☐ MATH 1213 Plane Trigonometry³

Physical and Biological Sciences: 35 hours

- ☐ BIOL 1543 Principles of Biology
☐ BIOL 1541L Principles of Biology Lab
☐ BIOL 2013 General Microbiology
☐ BIOL 2011L General Microbiology Lab
☐ BIOL 3863 General Ecology
☐ BIOL 3861L General Ecology Lab **OR**
☐ ENSC 3223 Ecosystems Assessment
☐ ENSC 3221L Ecosystems Assessment Lab
☐ CSES 1203 Intro to Plant Sciences
☐ CHEM 1103 University Chemistry I
☐ CHEM 1101L University Chemistry I Lab
☐ CHEM 1123 University Chemistry II
☐ CHEM 1121L University Chemistry II Lab
☐ CHEM 2613 Organic Physiological Chemistry
☐ CHEM 2611L Organic Physiological Chemistry Lab **OR**
☐ CHEM 3603 Organic Chemistry I
☐ CHEM 3601L Organic Chemistry I Lab
☐ GEOS 1113 Physical Geology
☐ GEOS 1111L Physical Geology Lab
☐ PHYS 2013 College Physics I
☐ PHYS 2011L College Physics I Lab

Fine Arts/Humanities: 6 hours

Choose 3 hours from Fine Arts and 3 hours from Humanities:²

Check for completion	Course I. D.:	Course Name:
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Social Sciences: 9 hours

Choose 9 hours from Social Science Core:²

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ESWS Major Core: 32-33 hours⁵

Environmental Science Core (17 hours):

- ☐ CSES 2203 Soil Science
☐ CSES 2201L Soil Science Lab
☐ ENSC 1003 Environmental Science
☐ ENSC 1001L Environmental Science Lab
☐ ASTM 2903 AHES Applications of Microcomputers
☐ ENSC 3003 Introduction to Water Science
☐ STAT 2303 Principles of Statistics

Soil Science core (3-4 hours):

Choose at least 3 hours from the following:

- ☐ CSES 3214 Soil Resources and Nutrient Cycles
☐ CSES 4224 Soil Fertility
☐ CSES 4253 Soil Classification and Genesis
☐ CSES 4553 Wetland Soils
☐ ENSC 3263 Soil & Water Conservation
☐ ENSC 4263 Environmental Soil Science

Water Science core (3 hours):

Choose 3 hours from the following:

- ☐ ENSC 4023 Water Quality
☐ GEOS 3333 Oceanography
☐ GEOS 4033 Hydrogeology
☐ GEOS 4363 Climatology
☐ GEOS 4473 Applied Climatology

Natural Resources Core:

Environmental Science – Choose 6-9 hours from the following:

- ☐ ASTM 3153 Surveying in Agriculture and Forestry
☐ CSES 2013 Pest Management
☐ CSES 355V Soil Profile Description (1 hour)⁴
☐ CSES 4553 Wetland Soils
☐ CSES 462V Internship (1-6 hours)
☐ ENSC 3103 Plants and Environmental Restoration
☐ ENSC 3263 Soil and Water Conservation
☐ ENSC 3603 GIS for Environmental Science
☐ ENSC 4021L Water Quality Lab
☐ ENSC 4401 Professional Certification Preparation
☐ GEOS 3043 Sustaining Earth
☐ GEOS 3543 Geospatial Applications and Information Science
☐ AFLS 401V Special Topics in AFLS⁶ **OR**
☐ AFLS 401VH Honors Special Topics⁶

Environmental Studies – Choose 0-3 hours from the following:

- ☐ AGECE 3413 Principles of Environmental Economics
☐ AGECE 3503 Agricultural Law I
☐ AGECE 3523 Environmental and Natural Resources Law
☐ ENSC 3933 Environmental Ethics
☐ SOCI 4603 Environmental Sociology

General Electives: 16-17 hours

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OTHER REQUIREMENTS FOR A B.S.A. DEGREE

120 total semester hours of which:

9 hrs outside the Departmental Alpha Codes within the Bumpers College

36 semester hours in upper division courses

Courses taken within major cannot be taken for duplicate credit

2.00 GPA

¹ UNIV 1001 is required for new freshmen or transfer with less than 24 hours

² See student degree audit for approved course list

³ Higher level MATH is encouraged for students with ACT >26 and considering graduate school

⁴ May take twice for two hours total credit.

⁵ Courses taken within major cannot be taken for duplicate credit.

⁶ One 3-hr study abroad course, either Experiential Learning in Indian Agriculture (Jan) or Sustainability in the Eurozone Agro-Food Chain (May), which are both taken under AFLS 401V/401VH, can be substituted for 3 hours of Natural Resources core