

FORM B

**CALIFORNIA STATE UNIVERSITY, SACRAMENTO
PROGRAM PROPOSAL**

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| Academic Unit: Environmental Studies / SSIS | Date of Submission to School Dean: April 25, 2006 |
| Requested Effective: Fall <input checked="" type="checkbox"/> , Spring __, 2006. | |
| Name of Contact Person, if not Department Chair: | |
| Title of the Program: Bachelor of Arts in Environmental Studies | |
| Type of Program Proposal: <input checked="" type="checkbox"/> Modification in Existing Program: <input checked="" type="checkbox"/> Substantive Change ___ Non-Substantive Change ___ Deletion of Existing Program ___ New Programs ___ Initiation (Projection) of New Program on to Master Plan ___ New Degree Programs ___ Regular Process ___ Fast Track Process ___ Pilot Process ___ New Minor, Concentration, Option, Specialization, Emphasis ___ New Certificate Program | |
| PLEASE NOTE: Form B is to be used only as a Cover Form. Additional information is requested for each of the above as noted in the corresponding procedure in the Policies and Procedures for Initiation, Modification, Review and Approval of Courses and Academic Programs found at http://www.csus.edu/acad/univmanual/index.htm | |
| Briefly describe the program proposal (new or change) and provide a justification. The Dept. of Biological Sciences has developed a new introductory series (BIO 1 and BIO 2; 10 units) that will replace the existing introductory series (BIO 10, 11 and 12; 11 units) for our majors. This program change incorporates this new series into our curriculum. <u>The new program reflects associated course change proposals for Environmental Studies 121 Field Methods, and Environmental Studies 175 Aquatic Pollution Assessment.</u> | |
| PLEASE SEE ATTACHMENT A | |

Approvals:

Department Chair: _____ **Date:** _____

School Dean: _____ **Date:** _____

University Committee: _____ **Date:** _____

Associate Vice President

For Academic Affairs: _____ **Date:** _____

ATTACHMENT A

| OLD PROGRAM | NEW PROGRAM |
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| <p>REQUIREMENTS - BACHELOR OF ARTS DEGREE</p> <p>Units required for Major: 48-49 plus a required minor Minimum total units required for BA: 120 Minimum GPA: "C-" is required in all courses required for the Environmental Studies major. Courses in parentheses are prerequisites.</p> <p>Note: Students are also required to maintain a portfolio containing samples of their work. See your advisor for more details about the portfolio.</p> <p>A. Required Lower Division Courses (22 units)</p> <p>(3) <u>BIO 010</u> Basic Biological Concepts (4) <u>BIO 011</u> Animal Biology (<u>BIO 010</u>) (4) <u>BIO 012</u> Plant Biology (<u>BIO 010</u>) (5) <u>CHEM 006A</u> Introduction to General Chemistry (One year high school algebra) (3) <u>ECON 001A</u> Introduction to Macroeconomic Analysis (3) <u>GEOL 010</u> Physical Geology</p> <p>B. Required Upper Division Courses (26-27 units)</p> <p>(3) <u>BIO 160</u> General Ecology (<u>BIO 011</u>, <u>BIO 012</u>) (3) <u>ENVS 111</u> Environmental Ethics (<u>ENVS 010</u>, <u>ENVS 110</u> or equivalent recommended) (3) <u>ENVS 112</u> International Environmental Problems (Passing score on WPE) (3) <u>ENVS 120</u> Quantitative Methods For Environmentalists (Ability to manipulate algebraic expressions (Math 9 or 11). For Environmental Studies majors <u>ENVS 111</u> or instructor permission.)</p> <p>(2-3) Select one of the following:</p> <p><u>ENVS 121</u> Field Methods in Environmental Science (<u>BIO 160</u>, <u>CHEM 006A</u>, or concurrent enrollment; or instructor permission) <u>ENVS 175</u> Aquatic Pollution Assessment (<u>BIO 160</u>, <u>CHEM 006A</u>, or concurrent enrollment; or instructor permission)</p> <p>(3) Select one of the following:</p> <p><u>ENVS 128</u> Environment and the Law (<u>ENVS 111</u> or instructor permission) <u>ENVS 171</u> Environmental Politics and Policy (<u>ENVS 111</u> or instructor permission)</p> <p>(3) <u>ENVS 190</u> Senior Thesis (Passing score on WPE) A, B, or C</p> <p>(3) Select one of the following:</p> <p><u>ENVS 130</u> Environmental Toxicology (<u>CHEM 001A</u> or <u>CHEM 006A</u>) <u>GEOG 109</u> Geographic Information Systems <u>GEOG 111</u> Elements of Meteorology (<u>GEOG 001</u>)</p> | <p>REQUIREMENTS - BACHELOR OF ARTS DEGREE</p> <p>Units required for Major: 47-48 plus a required minor Minimum total units required for BA: 120 Minimum GPA: "C-" is required in all courses required for the Environmental Studies major. Courses in parentheses are prerequisites.</p> <p>Note: Students are also required to maintain a portfolio containing samples of their work. See your advisor for more details about the portfolio.</p> <p>A. Required Lower Division Courses (21 units)</p> <p>(5) <u>BIO 001</u> Biodiversity, Evolution and Ecology (5) <u>BIO 002</u> Cells, Molecules and Genes (<u>CHEM 001A</u>, <u>BIO 001</u>) (5) <u>CHEM 001A</u> General Chemistry I (High school algebra [two years] and high school chemistry; or equivalent) (3) <u>ECON 001A</u> Introduction to Macroeconomic Analysis (3) <u>GEOL 010</u> Physical Geology</p> <p>B. Required Upper Division Courses (26-27 units)</p> <p>(3) <u>BIO 160</u> General Ecology (<u>BIO 001</u>, <u>BIO 002</u>) (3) <u>ENVS 111</u> Environmental Ethics (<u>ENVS 010</u>, <u>ENVS 110</u> or equivalent recommended) (3) <u>ENVS 112</u> International Environmental Problems (Passing score on WPE) (3) <u>ENVS 120</u> Quantitative Methods For Environmentalists (Ability to manipulate algebraic expressions (Math 9 or 11). For Environmental Studies majors <u>ENVS 111</u> or instructor permission.)</p> <p>(2-3) Select one of the following:</p> <p><u>ENVS 121</u> Field Methods in Environmental Science (<u>BIO 160</u>, <u>CHEM 001A</u> or <u>CHEM 006A</u>, or concurrent enrollment; or instructor permission) <u>ENVS 175</u> Aquatic Pollution Assessment (<u>BIO 160</u>, <u>CHEM 001A</u> or <u>CHEM 006A</u>, or concurrent enrollment; or instructor permission)</p> <p>(3) Select one of the following:</p> <p><u>ENVS 128</u> Environment and the Law (<u>ENVS 111</u> or instructor permission) <u>ENVS 171</u> Environmental Politics and Policy (<u>ENVS 111</u> or instructor permission)</p> <p>(3) <u>ENVS 190</u> Senior Thesis (Passing score on WPE) A, B, or C</p> <p>(3) Select one of the following:</p> <p><u>ENVS 130</u> Environmental Toxicology (<u>CHEM 001A</u> or <u>CHEM 006A</u>) <u>GEOG 109</u> Geographic Information Systems <u>GEOG 111</u> Elements of Meteorology (<u>GEOG 001</u>)</p> |

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| <p>or instructor permission)</p> <p><u>GEOG 113</u> Climate (Knowledge of general world distribution of climatic elements as given in an introductory physical geography course)</p> <p><u>GEOG 115</u> Geography of Plants and Animals (<u>GEOG 001</u>)</p> <p>(3) Select one of the following:</p> <p><u>ECON 110</u> Introduction to Public Economics (<u>ECON 001B</u>)</p> <p><u>ECON 123</u> Resource Economics (<u>ECON 001B</u>)</p> <p><u>ECON 162</u> Energy Economics (<u>ECON 001B</u>)</p> <p>C. Required Minor</p> <p>The Environmental Studies Major requires a minor in another discipline.</p> | <p>or instructor permission)</p> <p><u>GEOG 113</u> Climate (Knowledge of general world distribution of climatic elements as given in an introductory physical geography course)</p> <p><u>GEOG 115</u> Geography of Plants and Animals (<u>GEOG 001</u>)</p> <p>(3) Select one of the following:</p> <p><u>ECON 110</u> Introduction to Public Economics (<u>ECON 001B</u>)</p> <p><u>ECON 123</u> Resource Economics (<u>ECON 001B</u>)</p> <p><u>ECON 162</u> Energy Economics (<u>ECON 001B</u>)</p> <p>C. Required Minor</p> <p>The Environmental Studies Major requires a minor in another discipline.</p> |
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| OLD PROGRAM | NEW PROGRAM |
|---|---|
| <p><u>REQUIREMENTS - MINOR</u></p> <p>Units required for Minor: 23-25, including courses from Environmental Studies and related departments. A minimum of 14 upper division units is required.</p> <p>Specific course requirements are:</p> <p>(3) ENVS 010 Environmental Science</p> <p>(3) ENVS 111 Environmental Ethics (ENVS 010, ENVS 110 or equivalent recommended)</p> <p>(3) BIO 010 Basic Biological Concepts</p> <p>(3) ECON 001A Introduction To Macroeconomic Analysis</p> <p>(3) Select one of the following:</p> <p style="padding-left: 40px;">ENVS 112 International Environmental Problems (passing score on WPE) OR</p> <p style="padding-left: 40px;">ENVS 128 Environment and the Law (ENVS 110, ENVS 111 or instructor permission)</p> <p style="padding-left: 40px;">ENVS 171 Environmental Politics and Policy (ENVS 111 or instructor permission)</p> <p>(3-4) Select one of the following:</p> <p style="padding-left: 40px;">BIO 011 Animal Biology (BIO 010)</p> <p style="padding-left: 40px;">BIO 012 Plant Biology (BIO 010)</p> <p style="padding-left: 40px;">BIO 102 Natural History of Plants (college biology course or instructor permission)</p> <p style="padding-left: 40px;">BIO 157 General Entomology (BIO 011)</p> <p style="padding-left: 40px;">BIO 160 General Ecology (BIO 011, BIO 012, STAT 001)</p> <p style="padding-left: 40px;">BIO 162 Ichthyology: The Study of Fishes (BIO 011)</p> <p style="padding-left: 40px;">BIO 165 Vertebrate Natural History (BIO 011)</p> <p style="padding-left: 40px;">BIO 166 Ornithology (BIO 011)</p> <p>(2-3) Select one of the following:</p> <p style="padding-left: 40px;">ENVS 120 Quantitative Methods for Environmentalist (Ability to manipulate algebraic expressions (Math 9 or 11). For Environmental Studies majors ENVS 111 or instructor permission.)</p> <p style="padding-left: 40px;">ENVS 121 Field Methods in Environmental Science (BIO 160, CHEM 006A, or concurrent enrollment; or instructor</p> | <p><u>REQUIREMENTS - MINOR</u></p> <p>Units required for Minor: 23-26, including courses from Environmental Studies and related departments. A minimum of 14 upper division units is required.</p> <p>Specific course requirements are:</p> <p>(3) ENVS 010 Environmental Science</p> <p>(3) ENVS 111 Environmental Ethics (ENVS 010, ENVS 110 or equivalent recommended)</p> <p>(3) BIO 010 Basic Biological Concepts</p> <p>(3) ECON 001A Introduction To Macroeconomic Analysis</p> <p>(3) Select one of the following:</p> <p style="padding-left: 40px;">ENVS 112 International Environmental Problems (passing score on WPE) OR</p> <p style="padding-left: 40px;">ENVS 128 Environment and the Law (ENVS 110, ENVS 111 or instructor permission)</p> <p style="padding-left: 40px;">ENVS 171 Environmental Politics and Policy (ENVS 111 or instructor permission)</p> <p>(3-5) Select one of the following:</p> <p style="padding-left: 40px;">BIO 001 Biodiversity, Evolution, and Ecology</p> <p style="padding-left: 40px;">BIO 002 Cells, Molecules, and Genes (CHEM 001A, BIO 001)</p> <p style="padding-left: 40px;">BIO 102 Natural History of Plants (college biology course or instructor permission)</p> <p style="padding-left: 40px;">BIO 157 General Entomology (BIO 001, BIO 002)</p> <p style="padding-left: 40px;">BIO 160 General Ecology (BIO 001, BIO 002, STAT 001)</p> <p style="padding-left: 40px;">BIO 162 Ichthyology: The Study of Fishes (BIO 001, BIO 002)</p> <p style="padding-left: 40px;">BIO 165 Vertebrate Natural History (BIO 001, BIO 002)</p> <p style="padding-left: 40px;">BIO 166 Ornithology (BIO 001, BIO 002)</p> <p>(2-3) Select one of the following:</p> <p style="padding-left: 40px;">ENVS 120 Quantitative Methods for Environmentalist (Ability to manipulate algebraic expressions (Math 9 or 11). For Environmental Studies majors ENVS 111 or instructor permission.)</p> <p style="padding-left: 40px;">ENVS 121 Field Methods in Environmental Science (BIO 160, CHEM 001A or CHEM 006A, or concurrent enrollment; or instructor</p> |

permission)

ENVS 130 Environmental Toxicology (CHEM 001A or CHEM 006A)

ENVS 175 Aquatic Pollution Assessment (BIO 160, CHEM 006A, or concurrent enrollment; or instructor permission)

CHEM 106 Chemical Concepts (GEOL 008 or BIO 007, ENGL 020 or an equivalent second semester composition course)

GEOG 109 Geographic Information Systems

GEOG 111 Elements of Meteorology (GEOG 001 or instructor permission)

GEOG 113 Climate (Knowledge of general world distribution of climatic elements as given in an introductory physical geography course.)

GEOG 115 Geography of Plants and Animals (GEOG 001)

GEOL 010 Physical Geology

(3) Select one of the following:

ENVS 122 Environmental Impact Analysis: CEQA and NEPA

ENVS 195 Environmental Studies Internship

ENVS 199 Special Problems

ECON 110 Cost Benefit Analysis (ECON 001B)

ECON 123 Resource Economics (ECON 001B)

ECON 162 Energy Economics (ECON 001B)

Note: A minimum grade of "C-" is required in all courses required for the Environmental Studies minor.

permission)

ENVS 130 Environmental Toxicology (CHEM 001A or CHEM 006A)

ENVS 175 Aquatic Pollution Assessment (BIO 160, CHEM 001A or CHEM 006A, or concurrent enrollment; or instructor permission)

CHEM 106 Chemical Concepts (GEOL 008 or BIO 007, ENGL 020 or an equivalent second semester composition course)

GEOG 109 Geographic Information Systems

GEOG 111 Elements of Meteorology (GEOG 001 or instructor permission)

GEOG 113 Climate (Knowledge of general world distribution of climatic elements as given in an introductory physical geography course.)

GEOG 115 Geography of Plants and Animals (GEOG 001)

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ECON 162 Energy Economics (ECON 001B)

Note: A minimum grade of "C-" is required in all courses required for the Environmental Studies minor.