I. Bulletin Description:
EVS 120 & 120A is designed to give the student a broad experience in environmental science. An introduction course, for both science majors and non-majors, designed to explore the branch of biology concerned with the relations between organisms & their environment, and the processes that influence the environment. The impact of local & global human activities on the environment will be investigated along with a survey of environmental planning, policy and law. Indigenous people’s cultural and spiritual perspectives will be integrated throughout the course.

II. Prerequisites, Pre/Co-requisites, Co-requisites, Recommended:
EVS 120-A is a two credit lab/ recitation course to be taken concurrently with EVS 120.

It is highly recommended that students have tested out of ENG 096, ENG 098, and MTH 095 through their COPASS assessment session. The rationale for this recommendation is based from the instructor’s classroom experience with students that have challenges with reading comprehension, basic writing skills and math. The unprepared student struggles with understanding the science texts, terminology and concepts.

III. Rationale for Course Level:
Through the study of environmental science we develop the multi-disciplinary skills to investigate and explore the concepts, principles and processes governing nature. The knowledge gained is important for us to make informed decisions regarding our interactions and/or impact with other organisms, other cultures, and our local and global environments. Most importantly, this course undertakes this new Western discipline with lessons learned through historical Anishnaabeh traditions regarding respect for the Mother Earth.

IV. Suggested Textbooks:
ISB: 0073532517

V. Other Requirements and/or Materials for the Course:
Protective goggles for lab & Carbonless lab journal
VI. Student Learning Course Objectives:

After successful completion of this course, the student will be able to:

Institutional/College/General Education

Students will demonstrate:
1. An understanding of Anishinaabe culture and traditional values
2. Competency in reading, writing, oral communication, and numerical literacy
3. The ability to gather, analyze, interpret, evaluate, and apply information
4. An understanding of the diversity of human experience

Lecture:
1. Define and apply terminology commonly used in environmental science
2. briefly summarize and describe global, regional, and landscape scale environmental processes and systems
3. List common and adverse human impacts on biotic communities, soil, water, and air quality, discuss sustainable strategies to mitigate these impacts and compare and contrast to Native American approaches to human relations with the environment.
4. Critically evaluate presented information and data using scientific principles and concepts, synthesize popular media reports/articles discussing environmental issues, and verbally discuss and defend their positions on scientific issues

Lab course:
1. To carry out basic biological laboratory activities safely and reliably
2. To collect, organize, analyze, interpret and present quantitative and qualitative biological data utilizing the scientific method
3. To effectively work with others in the laboratory

VII. Suggested Course Outline:

<table>
<thead>
<tr>
<th>Week</th>
<th>Reading(s)</th>
<th>Subject</th>
<th>Assignments &amp; Exams</th>
<th>L O</th>
<th>Lab Exercise</th>
<th>Lab Assignment</th>
<th>L O</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Chap 1 Handouts</td>
<td>Understanding our Environment-Indigenous &amp; Western approaches</td>
<td>Where are you? Questionnaire CAT</td>
<td>Natural vs unnatural LAB SAFETY</td>
<td>Reflection paper</td>
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<tr>
<td>2</td>
<td>Chap 2 handouts</td>
<td>Env Sys: Connections cycles Flows</td>
<td>Reading Quiz</td>
<td>Native Views &amp; Land Ethics Begin radish pH experiment</td>
<td>Reflection paper Design tables for expt</td>
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<tr>
<td>3</td>
<td>Chap 3</td>
<td>Evolution, species &amp; bio communities</td>
<td>Concept quiz</td>
<td>Scientific Method &amp; Graphing Lab</td>
<td>Prediction paper radish</td>
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<tr>
<td>4</td>
<td>Chap 4</td>
<td>Human populations</td>
<td>Reading quiz</td>
<td>Ecological Footprint How to write a science report.</td>
<td>Finished Eco footprint</td>
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<tr>
<td>5</td>
<td>Chap 5</td>
<td>Biomes &amp; biodiversity</td>
<td>Exam 1</td>
<td>Comparing ecosystems Ziibiwing field trip</td>
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<tr>
<td>Week</td>
<td>Chapter</td>
<td>Topic</td>
<td>Assignment</td>
<td>Project, Paper, Presentation</td>
<td>Exam, Field Trip, Due Date</td>
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<td>6</td>
<td>Chap 6 handouts</td>
<td>Evn Conservation</td>
<td>Concept quiz</td>
<td>Theology of Place Start acid rain expt</td>
<td>Reflection paper</td>
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<td>7</td>
<td>Chap 7 handouts</td>
<td>Food &amp; Agriculture</td>
<td>Reading quiz</td>
<td>Cultural relevance and Agriculture</td>
<td>Research topic &amp; justification</td>
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<td>8</td>
<td>Chap 8</td>
<td>Env health &amp; Toxicology</td>
<td>Concept quiz</td>
<td>Chemical profile lab Lab Exam</td>
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<td>9</td>
<td>Chap 9</td>
<td>Air: climate &amp; pollution</td>
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<td>Finish acid rain expt Acid rain data</td>
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<td>10</td>
<td>Chap 10</td>
<td>Water; Resources &amp; Pollution</td>
<td>Exam II</td>
<td>SCIT Sewage &amp; Water Trtmt Plant Field Trip</td>
<td>Acid rain references due</td>
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<td>11</td>
<td>Chap 11 handouts</td>
<td>Env Geology-Earth</td>
<td></td>
<td>Climate Change-Native collaborations</td>
<td>Acid rain report due</td>
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<td>12</td>
<td>Chap 12 handouts</td>
<td>Energy</td>
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<td>Taking sides: debates Debate notes</td>
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<td>13</td>
<td>Chap 13</td>
<td>Solid &amp; hazardous Wastes</td>
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<td>Project work session Rough drafts due</td>
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<td>14</td>
<td>Chap 14</td>
<td>Economics &amp; Urbanization</td>
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<td>Make natural cleaners Study session Report on cleaning product</td>
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<tr>
<td>15</td>
<td>Chap 15</td>
<td>Env Policy &amp; Sustainability</td>
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<td>Project presentations</td>
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<tr>
<td>16</td>
<td>Finals Week</td>
<td></td>
<td></td>
<td>Where Are You? due</td>
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**VIII. Suggested Course Evaluation:**

Specific learning outcomes will be evaluated by: Student lecture assignments, quizzes and exams will document the students’ understanding of environmental science principles. Environmental Science Lab Journals will be prepared by each student to monitor the student’s growth in experimental understanding, research capabilities, and critical analysis efforts. These lab journals will include reflections, reports, lab exercises, cultural relevancy investigations and media evaluations. A final project that requires the integration of cultural relevancy with Western scientific concepts, will be investigated, prepared, and presented by students. The Environment & Culture Project & the individual Environmental Lab Journals are the final student projects for EVS 120 & 120A. The projects will be presented by each student during the final week of classes.

**Lecture:**

1] Mid-term exams (20%);
2] assignments/ quizzes (40%)
3] Participation points (10%)
4] cumulative final lecture (10%)
5] Environment & Culture Project (20%)

**Lab:**

1] Participation points (10%)
2] quality of lab journals (10%)
3] Lab assignments/ quizzes (30%)
4] exam (15%)
5] Lab Reports (10%)
IX. Bibliography:

**DVDs and Videos**


Syllabus Prepared By:

**Cheryl Calhoun B.S., ABD**

(Date Syllabus Created/Updated if MCS Review)

Date 8-3-2012