## **CLO Rubric Development Project Report Form – Part 1 – 1<sup>st</sup> Basic Outline**

## **Core Learning Outcomes: Think & Apply**

## **Discipline and Faculty: Watershed Science Technician Program (WST)**

| Dimension Assessed <sup>*</sup>   | Accomplished                            | Proficient                                   | Developing  | Beginning                                    |
|---|---|--|---|--|
|   | 4                                       | 3  | 2   | 1  |
| Student can take knowledge based on scientific<br>principles, appropriate technology and ecological<br>processes, and apply it in a professional, organized<br>way, linking it by clearly communicating why you do<br>what you do; this should be a reflection back to the<br>scientific knowledge you've gained and should<br>reasonably follow expected professional practice | Spring,<br>Year 2<br>WST 234<br>WST 280 | Fall/Winter,<br>Year 2<br>WST 230<br>WST 280 | Spring,<br>Year 1<br>ENVS 181<br>WST 205<br>WST 206<br>WATR 222 | Fall/Winter,<br>Year 1<br>GS 102<br>ENVS 183 |
|   |   |  |   |  |
|   |   |  |   |  |

\*Faculty teams should add dimensions to align with <u>core learning outcome statements</u>.

Note – we decided to adopt an initial approach of noting level of accomplishment by term. I've put courses in parentheses as well on this 1<sup>st</sup> draft. This idea was completely reworked through several meetings, and the next pages display our final draft, a result of our meetings in May.

New form, including narratives to instructor and WST program student will appear here on the next few pages.

Beginning Developing Proficient Accomplished Rubric **Dimension Assessed** 2 3 1 4 Identify Identify observable and Explain the Communicate a Fluently Think Critically measurable classification of a basic assessment communicate using and define key characteristics and watershed and its of watershed technical language watershed attributes, general attributes of a classification. of watershed features. functions, and values, watershed. Carry out a simple classification. as well as the essential analysis of Carry out a

CORE LEARNING OUTCOME: Watershed Science Technician Rubric, including aspects of "think" and "apply"

|                   | tools and technologies.   |   |   | watershed<br>properties in a few<br>settings.  | comprehensive<br>analysis of<br>watershed<br>properties in many<br>settings.  |
|-------------------|---|---|---|--|---|
| Apply<br>learning | <b>Connect</b><br>theory and practice, to<br>choose the appropriate<br>system of<br>categorization or the<br>proper survey method<br>needed to achieve a<br>goal. | Connect watershed<br>functions and values<br>with specific,<br>measurable attributes. | Explain the systems<br>of categorization<br>used for watersheds<br>and their attributes<br>and link them to<br>appropriate<br>assessment and<br>monitoring methods. | Compare and<br>contrast various<br>systems of<br>categorization and<br>the various<br>linkages to<br>assessment and<br>monitoring<br>methods<br>appropriate to use<br>with them. | Connect which<br>systems of<br>categorization,<br>which methods of<br>monitoring and<br>which techniques<br>of assessment are<br>appropriate for<br>specific sites. |

| Rubric            | Dimension Assessed   | Beginning<br>1  | Developing<br>2  | Proficient<br>3  | Accomplished<br>4  |
|-------------------|--|---|--|--|--|
| Apply<br>learning | Use<br>physical and<br>quantitative<br>assessment<br>techniques to<br>determine<br>characteristics or<br>attributes of a<br>watershed.   | Use basic assessment<br>tools, following<br>instructions from<br>instructor, peers, and<br>reference materials. | Select, use and care<br>for a broad<br>spectrum of<br>appropriate<br>assessment tools<br>enabling one to<br>carry out an<br>assigned task, with<br>appropriate<br>assistance from<br>instructor, peers,<br>and reference<br>materials. | Select, use and<br>care for a broad<br>spectrum of<br>appropriate<br>assessment tools<br>for a given<br>assessment type<br>with up to 25%<br>prompting from<br>instructor, peers or<br>reference material                      | Correctly select<br>and use a broad<br>spectrum of<br>appropriate<br>assessment tools<br>for a given<br>assessment type<br>with no prompting<br>from instructor,<br>peers or reference<br>material. Clean,<br>care for and store<br>tools safely and<br>effectively. |
| Apply<br>learning | Apply<br>skills and abilities<br>gained in one situation<br>or using one protocol<br>or methodology to new<br>situations or protocols,<br>in order to effectively<br>collect data using<br>appropriate<br>methodology. | Follow protocols exactly,<br>and consistently to get<br>accurate and precise<br>data as requested.              | Demonstrate the<br>use of a repertoire<br>of methodologies<br>and protocols for<br>gathering/measuring<br>data. List examples<br>of constrains such<br>as time, labor, or<br>finances one might<br>experience in a<br>project.         | Choose and<br>accurately perform<br>appropriate<br>protocol or survey<br>methodology for<br>specific sites.<br>Recognize the<br>opportunities or<br>constraints of a<br>given project, such<br>as time, labor, or<br>finances. | Adapt to achieve<br>goals within the<br>opportunities and<br>constraints<br>presented,<br>including choice of<br>tools for given filed<br>conditions, or<br>monitoring the<br>system for the right<br>time or opportunity<br>to go do                                |

| Rubric            | Dimension Assessed   | Beginning<br>1   | Developing<br>2   | Proficient<br>3  | Accomplished<br>4   |
|-------------------|--|--|---|--|---|
|                   |  |  |   |  | measurements.   |
| Apply<br>learning | Integrate and reflect<br>on experiences and<br>learning from multiple<br>and diverse contexts. | Demonstrate familiarity<br>with field data and<br>processes.<br>Describe/journal/record<br>multiple ecosystem<br>experiences and list<br>appropriate data<br>collection protocols for<br>each. | Define a variety of<br>ecotypes and utilize<br>appropriate data<br>collection protocol<br>for each. | Analyze potential<br>issues for a given<br>ecotype using<br>appropriate<br>terminology.<br>Discuss how<br>issues within one<br>ecotype may<br>impact another<br>using proper<br>terminology. | Explain the<br>rationale for a field<br>monitoring program<br>using appropriate<br>terminology and<br>processes, based<br>on a variety of field<br>experiences. |

