Tech Prep
In
Water Management

A consortium of High School, Community College and University Departments

This document contains student competency requirements for the specialized area of:

Watershed Management, Protection and Enhancement
WMGT 139C

To receive college credit, a student must complete at least 80% of the competencies. The high school instructor should initial each competency area that is completed by the student. By initialing these competencies, the instructor is insuring that the student has completed the required work at a level that should receive college credit

Revision date: 6/19/09
## Watershed Management, Protection and Enhancement

**COMPETENCY AREAS:**

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Credit Earned</th>
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<tr>
<td>Ecosystem Essentials and human interactions</td>
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<tr>
<td>Watershed planning processes</td>
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<td>Tools for protection</td>
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Student Name: ________________________________________________________________

High School: ________________________________________________________________

Course grade given: __________

I verify the above student has received instruction on all competencies and successfully mastered a minimum of 80% of the identified competencies. The student has received a grade of B or better for the articulated high school course.

High School Instructor Signature: ________________________________

Date: _________________
Watershed Management
Protection and Enhancement

Rating Scale for Performance Tasks:

*Watershed management, protection and enhancement, is a course which covers ecosystems and their interactions with humans, watershed planning processes and watershed protection methods.*

**4 - Highly Skilled/Proficient**
Student can complete the competency accurately.
Student can direct others to do the competency.
Student needs little supervision.
Written tests, 90%

**3 – Skilled/Performs with Minimum Supervision**
Student can perform all parts of the competency.
Student needs only completed work spot-checked.
A student meets speed and accuracy requirements (if any).
Student needs minimum supervision.
Written tests, 80%

**2 - Limited Skills/Performs with Close Supervision**
Student can perform most parts of the competency.
Student needs help with only the most difficult parts.
Student needs close supervision.
Written tests, 70%

**1 – Exposure/Introductory**
Student can do simple basics of this competency with very close supervision.

**0 - No exposure/Not Taught**
Student has had no exposure to this competency

WMGT 139C requires documentation. Please make sure that it is included in the Portfolio. If these items are not included, credit will not be given for the class.

The following items are required in the portfolio:
1. A copy of the student’s class assignments and section test. For further details please contact Gerald J. Anhorn at WWCC.
2. The student’s narrative answers to all discussion points and other comments associated with each discussion point.
Watershed management
Protection and Enhancement

Module 1: Ecosystem Essentials and human interactions

1. The student describes Ecosystem Essentials.

2. Define Biosphere, Ecosystem, Ecology, biogeography

3. Identify Biotic and Abiotic components and subsystems of an ecosystem.

4. Define photosynthesis and respiration.

5. Identify biotic components within a food web and how they relate to one another.

6. Define ecological succession and why it takes place.

Module 2: Watershed planning

1. The student identifies and discusses planning processes and outcomes which have been proven successful and those which have not been successful.

2. Define watershed planning.

3. Explain the importance of flexibility and partnerships as related to watershed planning

4. Identify the three stages of the planning process

5. Define each stage of the planning process

6. Identify the 10 lessons learned from watershed planning processes.
Module 3: Tools for protection

1. The student identifies tools used to protect watersheds and watershed functions.

2. Identifies water quality and quantity issues

3. Demonstrates an understanding of flow regimes and the ramifications of human alterations

4. Identifies the eight tools used for protection of watersheds

5. Define each of the eight tools and where each is applicable.

6. Demonstrate the ability to determine which tools could be implemented within local watersheds.