Horticulture II Syllabus

Grades: 10, 11, 12                      Elective credit
Prerequisite: Horticultural Science    Instructor: John P. Hiers

Course Overview:
This course continues to develop competencies needed for occupational entry and advanced training in Horticulture. Students will perform greenhouse maintenance task along with developing independence projects. In addition, there will be nature walks, videos, student presentations, landscaping, seasonal decoration and advertising campaigns throughout the year. Students will grow and market seasonal plants, including vegetables, annuals, perennials, potted mums, poinsettias, and bulbs. This course encourages students to work independently or in a group setting. Students will have the freedom to develop their own independent study for possible future careers. Examples include: global stewardship, organic farming, outdoor recreation, landscape design, bonsai, environmental opportunities, floral design aquaponics/hydroponics and greenhouse grower.

The field of Horticulture offers thousands of high paying job opportunities and an endless future....

Units and Activities:
Independent Projects related to the subject area

Anchor Standards: This course will assess the knowledge and skills students build in key Anchor Standards and Content Standards.

Plant Environmental Control: Determine plant health and requirements
Plant Propagation: Propagate plants using both sexual and asexual methods
Plant Science Taxonomy: Use taxonomic system to identify a given plant(s)
Clear and Effective Communication: Communicate information clearly and effectively
Soil Science: Define and manipulate the role that soil plays in plant health
Pest Control: Identify common weeds, pests, diseases, and treatment methods
Business Management and Record Keeping: Develop and implement a business plan for marketing and selling horticultural products
HOWLs: preparation, participation, and perseverance (Project based learning)

Content Standards: This course builds student knowledge using the standards. The content standards for Horticulture are:
Vermont Agency of Education Career Tech Standards: Horticulture
Sections 7.1 and 7.2 of the Vermont’s Framework of Standards and Learning Opportunities.
Students use scientific methods to describe, investigate, and explain phenomena: Raise questions;
Generate alternative explanations -- hypotheses -- based on observations and prior knowledge;
Design inquiry that allows these explanations to be tested;
Gather and analyze data to compare the actual results to the expected outcomes.
In addition, the following sections apply under Horticulture Science and technology fundamentals: 1.3, 1.10, 1.15, 1.17, 1.18, 1.19, 2.1, 2.2, 2.3, 3.7, 7.8, 7.10, 7.11 and 7.13. These sections focus on plant and flower identification along with landscape design.

Assessment of Learning
Assessment Types:
Three types of assessments will be used to determine if you have gained the necessary knowledge and skills of this course: Formative assessments, Summative assessments, and Habits of Work for Learning. Each is briefly described below:

Formative Assessments: Formative = Forming my knowledge and skills. Formative Assessments receive a weight of .1 in the overall grade. Formative assessments are information for teachers, students, and parents on the progress students are making as they practice gaining knowledge and skills found in Anchor Standards. Teachers use the results of these assessments as data to understand individual student learning needs, adjust instructional pathways, and modify lessons to help students better meet course standards. Students use the results of these assessments to determine how they are progressing and to plan steps to ensure their success.

Summative Assessments: Summative = Summation of my knowledge and skills. Summative Assessments can receive three different weights: 1, 1.5, or 2 depending on the size of the assessment, and therefore have the greatest impact on the Overall Course Mastery Grade. Summative assessments are used as a measure of independent student achievement in Anchor Standards. Throughout this course, summative assessments provide benchmark student achievement data. A summative assessment will always have clear scoring criteria for students to understand how they are performing.

Habits of Work for Learning: Habits of Work for Learning (HOWLs) are skills and dispositions that are essential to the learning process but do not provide evidence of what a student knows or can do in relation to content. WUHMS teachers work to foster Habits of Work for Learning in three categories: preparation, participation, and perseverance.
Assessment Scoring:
Teachers will provide framing for summative assessment scores using proficiency level scoring criteria for grading similar to the example below:

<table>
<thead>
<tr>
<th>Anchor Standard: Computational Modeling</th>
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</table>

**Course Standards:** NGSS HS-L2-1 Use mathematical and/or computational representations to support explanations of factors that affect the carrying capacity of ecosystems at different scales. NGSS HS-LS2-4 Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.

<table>
<thead>
<tr>
<th>1.0*</th>
<th>1.3*</th>
<th>1.7*</th>
<th>2.0</th>
<th>2.3</th>
<th>2.7</th>
<th>3.0</th>
<th>3.3</th>
<th>3.7</th>
<th>4.0</th>
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<tbody>
<tr>
<td>NC*</td>
<td>NC*</td>
<td>NC*</td>
<td>C</td>
<td>C+</td>
<td>B-</td>
<td>B</td>
<td>B+</td>
<td>A-</td>
<td>A</td>
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<table>
<thead>
<tr>
<th>Representati</th>
<th>I can identify the components of a system.</th>
<th>I can represent the components of a system using numbers or variables.</th>
<th>I can show connections between components of a system using a computational model.</th>
<th>I can use mathematics and/or a computational representation to make predictions about how changing one variable or component will affect the system.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computationa</td>
<td>I can use a given computational model to explore relationships between components of a system.</td>
<td>I can use a given computational model as evidence to support a claim or explanation of a system.</td>
<td>I can create and/or revise a computational model and use it as evidence to support a claim or explanation of a system.</td>
<td>I can expand the computational model to illustrate how a change in a system component can impact all other relevant components.</td>
</tr>
<tr>
<td>Modeling &amp; Analysis</td>
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*scores in the “Beginning range” are well below proficient and thus they are below passing.

HOWL Scoring:
HOWLs will be scored at least once per checkpoint, and will be based on the frequency with which students demonstrate each of the habits: preparation, participation, and perseverance.

How is my Overall Course Grade Determined?
Overall course grades will be reported as letter grades and will be comprised of:
- Formative & Summative Scores: 95%
- HOWLs: 5%
For more information, please see the WUHSMS student handbook.

Communication:
How Do I Know My Grades?
- On Summative Assessments, a teacher will provide both a 4-point grade and a letter grade.
You can monitor your progress in the following ways:
  ○ By reading feedback and scoring returned to students on summative assessments
  ○ By monitoring the scores and Overall Course Mastery Grade in the Parent/Student portal on JumpRope
  ○ By monitoring the grades sent home quarterly through report cards

Where Can I Find This Syllabus during the School Year?
  ● This syllabus will be available on the school website in each subject’s department tab once the school year is up and running.

How Do I See What’s Due?
  ● Summative assessment due dates and handouts are posted to the blue “Upcoming Assessment” section of the JumpRope Parent/Student Portal on or before the day they are assigned to students.

How Do I See What’s Past Due?
  ● If a student is missing an assessment, it will be listed in the red “Missing Assessment” section of the JumpRope Parent/Student Portal along with any attachments.

Best Way to Contact Me:
Phone: 802-457-1317 extension 1027
Email: jhiers@wcsu.net

Materials:
All classroom materials will be supplied to students for their projects.

Schoolwide Procedures:
Please see the Student Handbook for Procedures and Policies related to: Due dates and deadlines, extra credit, retaking assessments, and turnaround time for grade entry.

Personal Mobile Devices: This class will follow the procedures outlined in the student handbook

Classroom Expectations:
Respectfulness by all
Students should have an interest in the subject

Teacher Contact Information:
Phone: 802-457-1317 extension 1027
Email: jhiers@wcsu.net

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KEEP TOP PORTION FOR YOUR RECORDS AND RETURN THIS PORTION TO
(TEACHER NAME) BY (DUE DATE)

I have read this syllabus, and I have contacted the teacher with any questions I have.

Student name (printed): ________________________________

Student Signed: ________________________________ Date: ________________________________

Parent/Guardian name (printed): ________________________________

Parent Signed: ________________________________ Date: ________________________________