Course Description:
An advanced agricultural course designed to review plant and soil science, propagation techniques, maintenance and running of the greenhouse, plant sales, careers, marketing, leadership, record keeping, and supervised agricultural experience.

Course Rules:
Will follow all rules set forth by BTEC and the Boonville School District and any other rules specific to this class.

1. Be Prepared-Make sure to have pencil, paper, & notebook before you sit down and be ready for class to start.
2. Be an Adult-Turn in your work on time. If work is turned in late, it will be assessed a 10% reduction in your score for every day it is late. Late work will only be accepted for a period of 3 days. If you miss a day, your work is due a day following your return. It is your responsibility to find out what you missed. If you know you will be gone prior, please ask me for your work. Also, do not cheat, it will get you sent to the office.
3. Be on Time-Make sure you get from the high school to the tech school promptly. Three tardies result in a detention, and every tardy after that results in a detention.
4. Be Respectful-Do not mess with others possessions. When the teacher is speaking, make sure you are listening and/or taking notes. Do not sleep in class, it will get you sent to the office. Also, class is not finished until the teacher says so, and you are not allowed to leave until you are dismissed.
5. Be Clean-Make sure to keep your notebook organized. Also, no food or drink in the classroom, unless on specified days. When you leave, all chairs must be pushed in and notebooks, papers, etc. put where they belong.
6. Be Ready to Learn-This class has a mixture of hands-on activities with lecture and worksheets. Make sure you interact in class, take notes, and participate in activities.
7. Be Safe-When working in the shop or on activities, follow all directions and safety measures given.
8. Be Involved-Get involved in the activities in class and the class itself. Also, take advantage of being an FFA member. Up to 75 points bonus, is added to your grade at the end of each semester based upon your FFA participation points.
9. Be Ready to Have Fun-This class gives you the opportunity to learn about things that you may or may not be familiar with and learn valuable life lessons that will stick with you forever.
Grading Scale

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 - 100</td>
<td>A</td>
<td>A--Distinctly Superior</td>
</tr>
<tr>
<td>90 – 94</td>
<td>A-</td>
<td></td>
</tr>
<tr>
<td>87 - 89</td>
<td>B+</td>
<td></td>
</tr>
<tr>
<td>83 - 86</td>
<td>B</td>
<td>B--Very Commendable</td>
</tr>
<tr>
<td>80 - 82</td>
<td>B-</td>
<td></td>
</tr>
<tr>
<td>77 - 79</td>
<td>C+</td>
<td></td>
</tr>
<tr>
<td>73 – 76</td>
<td>C</td>
<td>C--Average</td>
</tr>
<tr>
<td>70 - 72</td>
<td>C-</td>
<td></td>
</tr>
<tr>
<td>67 - 69</td>
<td>D+</td>
<td></td>
</tr>
<tr>
<td>63 - 66</td>
<td>D</td>
<td>D--Passing, in need of improvement</td>
</tr>
<tr>
<td>60 - 62</td>
<td>D-</td>
<td></td>
</tr>
<tr>
<td>Below 60%</td>
<td>F</td>
<td>F--Failing</td>
</tr>
</tbody>
</table>

Is considered failing.

Course Outline:

➢ Careers
➢ Leadership
➢ Supervised Agricultural Experience Programs
➢ Agricultural Recordbook
➢ Greenhouse Plant Identification
➢ Working Plant Sales
➢ Propagation Techniques
➢ Maintenance & Running of School Greenhouse
➢ Marketing & Sales

Other Activities:

➢ Maintain Notebooks
➢ Article Reviews
➢ Record Book Checks
➢ FFA Activities
➢ Speaking Contests
➢ Career Development Events
➢ SAE Visits

Plant Sales:
You will be given the opportunity to work the greenhouse plant sales for a grade & bonus. The plant sales will occur during the Christmas season and in the spring. During the spring, we will be open on a Thursday, Friday & Saturday, and Monday the following week. You are required to work a minimum of 6 hours at 50 points/hr. For every hour you work above your required time, you can receive 25 points bonus/hr.
**Daily & Weekly Duties and Evaluations**

As a group, you are required to do daily upkeep of the greenhouse facilities. Everyday, you must check the water on the plants, and water as needed, clean plants of dead leaves or blooms, arrange the plants on the tables, take out trash, mix soil, sweep, and any other general duties assigned to you. You also need to see if there are any plugs to be planted or things to be propagated. After planting, you must always make sure to clean up your mess by sweeping in and around the tables, putting tools away into their proper locations, and rolling up the hoses. At least once a week, you need to sweep the entire greenhouse, empty trash, and add fertilizer to the injector. Other duties will be assigned by the teacher as needed. You will also need to keep me posted on supply needs such as pots & soil or any problems you may see arising with the plants or the greenhouse. You will be graded at 50 points per week for the time we spend in the greenhouse. The teacher will conduct evaluations and observations to determine your grade. When working with peers, peer evaluations may be used to determine your weekly grade.

**Grading:**

There is usually a series of worksheets, quizzes, activities, and a test that accompanies each unit. On written work students are graded at 70%. Students are also given 50 points per week for their Work Place Readiness (attendance, participation, and behavior) that makes up their final 30% of their grade. See the attached Work Place Readiness Chart for the scoring guidelines.

All homework needs to be turned in on time. Work that is not turned in when collected will be assessed 10% reduction in the final score for everyday it is late, and will only be listed as an exempted grade for a period of 3 days before a zero is applied.

**Textbooks:**


**Computers & Cell Phones:**

Each member of the class will be assigned a number. The number will correspond to your computer and assigned slot in the cell phone holder. It is your responsibility to report any problems with that computer. When the computers are used, no food or drinks are allowed around them and you are to only use your assigned computer. At the end of class, all computers must be put into their proper slots, plugged in, and the power cord pushed in behind the computer so the computer is not sitting on it or hanging out the front. The mouse must have the cord wrapped around it and placed into the container.

When using the computers, you are not allowed to play games. If you are caught playing games, your privileges will be revoked. If you inflict willful damage upon the computers, you
will be sent to the office. Your cell phone must be turned in at the beginning of each class. If it is not turned in, you will not receive your daily points.

**Record books & Committee Work**
All students will be required to maintain a financial record book. Students will update their record book at least one time per month and will be given the 1st Thursday of every month to update their record book. During the 1st Friday of every month, the class will hold a committee meeting for their assigned POA committee. The committee will allow students to plan and conduct activities related to student, chapter, or community development.

**Information:**
Information regarding specific classes, the Ag Ed program, and the Boonville FFA can be found on www.mycert.com or on the FFA website: http://www.boonville.k12.mo.us/schools/btec/programs/ffa/Pages/default.aspx. My Caert will be used for electronic tests, quizzes, and worksheets. Information and pictures can also be found on the FFA Facebook or Twitter page and through the My FFA. My FFA Dashboard can be accessed through www.ffa.org. Make sure to also sign up for Eventlink for FFA alerts.

**FFA:**
- FFA involvement is required for above Ag Science I.
- FFA Participation Chart (Up to 75 points bonus/semester based upon your participation points).
- FFA dues $15.00, for one year, Seniors are eligible 3+1 dues for $50
- FFA jackets cost $70. Jackets, scarf/tie, and other FFA merchandise should be paid for before ordering. Make checks payable to BTEC.
# Instructional Calendar

**Deanna Thies**  
Agriculture Department  
Boonville

**Semester:** First  
**School Year:** 2018 - 2019

**Greenhouse Operations & Management/Horticulture**  
(Course Title)

<table>
<thead>
<tr>
<th>Week</th>
<th>Unit</th>
<th>Lesson (instructional periods)</th>
</tr>
</thead>
</table>
| 1    | Careers                       | Orientation to Agricultural Science and the agriculture program (1)  
Examining career opportunities in the agriculture industry (2)  
Classifying agricultural occupations by job requirements and benefits (1)  
Matching personal qualifications with appropriate occupations (1) |
| 2    | Watering                      | Proper Watering (5)                                                                                                               |
| 3    |                               | Fertilizers & Plant Nutrition (5)                                                                                                  |
| 4    | Plant Science                 | Plant Parts & Structures (5)                                                                                                      |
| 5    |                               | Plant Parts & Structures (5)                                                                                                      |
| 6    | Viticulture & Fruit and Vegetable Production | Identification of Varieties and Uses (5)                                                                                              |
| 7    |                               | Garden & Viticulture Layout and Planting Techniques (5)                                                                                      |
| 8    |                               | Viticulture Industry Overview and Pruning (4)                                                                                           |
|      |                               | Tour of Garden & Viticulture Facilities (1)                                                                                             |
| 9    |                               | Development of a Garden/Planting Plan (5)                                                                                               |
| 10   | Plant Propagation             | Sexual Plant Propagation (5)                                                                                                        |
| 11   |                               | Sexual Plant Propagation (5)                                                                                                        |
| 12   |                               | Asexual Plant Propagation (5)                                                                                                        |
| 13   |                               | Asexual Plant Propagation (5)                                                                                                        |
| 14   | Media                         | Growing Media (5)                                                                                                                      |
| 15   | Containers                    | Containers (5)                                                                                                                          |
| 16   | Pests                         | Common Greenhouse Pests & Diseases (5)                                                                                                 |
| 17   |                               | Techniques and Equipment Used to Apply Pesticides (5)                                                                                   |
| 18   |                               | Pesticide Safety (5)                                                                                                                   |
### Instructional Calendar

**Deanna Thies**  
**Agriculture Department**  
**Boonville**  

**Semester:** Second  
**School Year:** 2018 - 2019

---

**Greenhouse Operations and Management/Horticulture**  
*(Course Title)*

<table>
<thead>
<tr>
<th>Week</th>
<th>Unit</th>
<th>Lesson (instructional periods)</th>
</tr>
</thead>
</table>
| 19   | Agriculture Record Book | Completing the cash flow, inventory, and financial statement forms (4)  
Documenting awards and recognitions (1) |
| 20   | Marketing | Marketing Floriculture Crops (5) |
| 21   | Greenhouse Records | Record Keeping in Greenhouse Management (5) |
| 22   | TSA/IRC/CDE | Floriculture, Entomology, or Nursery Landscape TSA/IRC (5) |
| 23   | TSA/IRC/CDE | Floriculture, Entomology, or Nursery Landscape TSA/IRC (5) |
| 24   | TSA/IRC/CDE | Floriculture, Entomology, or Nursery Landscape TSA/IRC (5) |
| 25   | TSA/IRC/CDE | Floriculture, Entomology, or Nursery Landscape TSA/IRC (5) |
| 26   | TSA/IRC/CDE | Floriculture, Entomology, or Nursery Landscape TSA/IRC (5) |
| 27   | TSA/IRC/CDE | Floriculture, Entomology, or Nursery Landscape TSA/IRC (5) |
| 28   | TSA/IRC/CDE | Floriculture, Entomology, or Nursery Landscape TSA/IRC (5) |
| 29   | TSA/IRC/CDE | Floriculture, Entomology, or Nursery Landscape TSA/IRC (5) |
| 30   | Spring Plant Sales/Greenhouse Work | Greenhouse Work (5) |
| 31   | Spring Plant Sales/Greenhouse Work | Greenhouse Work (5) |
| 32   | Spring Plant Sales/Greenhouse Work | Greenhouse Work (5) |
| 33   | Spring Plant Sales/Greenhouse Work | Greenhouse Work (5) |
| 34   | Spring Plant Sales/Greenhouse Work | Greenhouse Work (5) |
| 35   | Final Project Development & Presentations | Work on Final Greenhouse Business Development Project (5) |
| 36   | Final Project Development & Presentations | Final Presentations (5) |

---

**Grading:**

There is usually a series of worksheets, quizzes, activities, and a test that accompanies each unit. On written work students are graded at 70%. Students are also given 50 points per week for their Work Place Readiness (attendance, participation, and behavior) that makes up their final 30% of their grade. See the attached Work Place Readiness Chart for the scoring guidelines.

All homework needs to be turned in on time. Work that is not turned in when collected will be assessed 10% reduction in the final score for everyday it is late, and will only be listed as an exempted grade for a period of 3 days before a zero is applied.
Greenhouse Cleanup Duties

**Objective:** To properly identify cleanup areas in which students are responsible. This will also assist those students in completing duties in the absence of other classmates.

**Hose:** Students in this area are to clean the floor in their assigned area and drainage of materials washed off the floor. They are also responsible for the proper storage of hoses.

**Broom:** Students in this area are to assist those students working with hoses in cleaning their defined area of the greenhouse floor. They are responsible for the storage of the brooms as well.

**Tool Pick up:** Students in this area are responsible for the proper storage and care of tools used in the greenhouse. These tools include scissors, tags, pencils, rooting hormone and pots. Students are also responsible for keeping storage cabinet and front table clean and in order.

**Soil and Fertilizer:** Students in this area are responsible for maintaining adequate amounts of medium for use in the greenhouse. This does include the proper amount of moisture applied for medium use. This area is also responsible for mixing fertilizer and proper installation of fertilizer applicators.

**All:** Each student is required to maintain plants on bench. This includes watering, identification, bench organization and cleanliness.
Greenhouse Duties

Daily:

1. **Check water on the plants**-Don’t just be watering to be watering. All plants may not need water at the same time, so you may have to spot water.
2. **Check for insects or any other problems that have arose**-Tell the teacher immediately if you notice something.
3. **Check for any mechanical problems**-Tell the teacher immediately if you notice something.
4. **Clean up any dead leaves from plants**-Trim them back or remove them to a joint.
5. **Clean up after yourself**-Make sure all materials are put away into the cabinet or the potting shed.
6. **Sweep up after yourself**-Make sure if you are planting to cleanup your area when you are finished. Use the white hand broom hanging from the potting table to sweep it off and then use the brown hand broom and gray dust pan to get the debris from the floor.
7. **Keep an inventory**-Especially during planting seasons, notify the teacher if running low on supplies so an order can be placed. It usually takes about 2-4 weeks to get supplies so keep a close eye on things.

Weekly:

1. **Sweep the entire greenhouse floor**-Make sure to get under the tables and in the isles.
2. **Take out the trash**-Make sure to empty all three trash cans.
3. **Refill fertilizer injector**-every week add 1 full container (clear plastic container in fertilizer bucket) of fertilizer to the injector and mix in with the stick.

Monthly:

1. **Clean the Kool Cell**-Use the spray nozzle to clean out both sides of the Kool Cell.
2. **Clean the Aspirator Filter**-Carefully remove the filter covering, wash the filter in the sink and replace the dried filter.
3. **Clean up the outside of the greenhouse**-Make sure to pick up trash and place in the dumpster, pull weeds on front and both ends, and sweep any debris or sand away from the greenhouse.
Planting Tips

1. Check board for planting duties for the day.
2. Obtain the correct size container from the potting shed.
3. Fill the container to the correct level and gently tap (Do NOT push down the soil) to settle the soil. Make sure the soil is moist, not dry, when it is put into pots.
4. Make a hole and place the seed or plug into the soil to the correct depth and firm in the plant into the soil.
5. Place the plants in the correct location.
6. Water in all pots and flats (with plants) correctly utilizing the fertilizer injector. For watering pots and flats (with seeds), make sure to place a Fogg-It nozzle on a hose and utilize it to water them.
7. If you were able to treat plants after planting, here are the guidelines:
   a. Put on personal protective equipment (PPE), safety glasses, apron, and gloves.
   b. Treat the surface of the soil with 1 teaspoon of Marathon.
   c. Treat the surface of the soil with ¼ cup of Banrot per 6” pot and about ¾ cup per planting flat.
   d. Mix ¼ cup of Banrot per 5 gallons of water.
   e. Rewater the plants.

Name: __________________________
Laboratory Evaluation

Instructions: This is a confidential evaluation which will be used by the teacher and periodically used by the class for peer evaluations. Each area will be valued at 10 points with a total score weekly of 50 points.

Safety: Student exhibits proper safety procedures in the laboratory setting. Proper care and storage of equipment and supplies is a large part of this area. Refraining from throwing objects and horseplay is also observed in this category.

Work: Student completes tasks outlined for the day, as well as looking for other constructive tasks to complete or begin. This could also include helping other students’ complete tasks outlined for the day or assisting others with additional tasks.

Attitude: Student works well with classmates and instructor. Maintaining a positive attitude and following instructions provided to complete an assignment or project. This also includes listening in class and not disrupting other students chance to learn.

Cleanup: Each student will be assigned a cleanup task to keep laboratory in functional condition. Student will be evaluated as to how well these cleanup duties are performed.

Quality: Students will also be evaluated on the quality of work in which they provide. This includes organization of materials as well as the appearance and functionality of the project constructed.