|  |  |  |
| --- | --- | --- |
| **~~Environmental Horticulture: Nursery Management~~ Hemp Agriculture (AS)** | **Agriculture & Natural Resources** | **Total Units: ~~26~~ 25** |
| **Term Effective:** [Fall 2018](https://portal.santarosa.edu/SRWeb/SR_ProgramOfStudy.aspx?MajorCertID=1892#terms)**Description**: ~~The Environmental Horticulture: Nursery Management major prepares students to advance to management positions in nurseries that propagate, grow and market plants for use in the home, business or the landscape. The program provides a solid foundation in plant knowledge and nursery and garden center environments, as well as computer applications and management skills. These skills and knowledge equip students to embark on a successful and rewarding career in the nursery industry.~~ The Hemp Agriculture major provides a rigorous and comprehensive foundationfor students seeking positions in the hemp industry that propagate, grow, andmarket a variety of products for consumers, commercial enterprises, or thewholesale market. The program delivers both lecture and hands-on laboratoryexperience in: Plant science, growth, and development; Soil and plant nutrition;Integrated pest management; Nursery and crop production; Irrigation methods,system design, and troubleshooting; and Principles of sustainable agriculture.While these topics apply to production of any crop, these courses will offercontextualized units, assignments, and/or lab activities that apply these topics tospecific aspects of the hemp plant.Hemp represents a multi-billion dollar industry and is poised to growexponentially following federal legalization in 2018. Hemp (Cannabis sativa L.) isa genetically distinct biotype of cannabis sativa grown for fiber, seed or oil. Infederal law, hemp by definition contains less than 0.3% THC, the compound inmarijuana known for its psychoactive effects (the euphoric “high”). Hemp is usedin the production of a wide range of products, including food and beverages,cosmetics and personal care products, nutritional supplements, fabrics andtextiles, construction and insulation materials, and other manufactured goods. Inaddition, hemp is used to produce non-psychoactive cannabidiol (CBD), whichhas shown enormous promise for a variety of medical applications.While this major is focused on hemp agriculture students may apply theknowledge and skills attained to a variety of agricultural production careers.This program of study is also available as a [certificate](http://portal.santarosa.edu/SRWeb/SR_ProgramOfStudy.aspx?ProgramType=1&Program=003255) option.**Program Student Learning Outcomes:**Upon successful completion of this program, the student will be able to: 1. ~~Demonstrate proper plant propagation techniques;~~
2. ~~define proper greenhouse environment required for propagation;~~
3. ~~compare and contrast container vs field production systems,~~
4. ~~apply appropriate behavior and workplace policies; and~~
5. ~~organize an effective product display.~~

1. Demonstrate primary methods of plant propagation in the hemp industry;2. Identify and compare important developmental stages of the hemp plant;3. Design a hemp production plan and schedule from soil preparation throughharvest.4. Identify and analyze sustainable agronomic hemp cultivation practices.**Program Requirements**: The requirements for the ~~Environmental Horticulture: Nursery Management~~ Hemp Agriculture (AS) program are:* Complete 26 units from
	+ ~~Environmental Horticulture: Nursery Requirements~~ Hemp Agriculture
	+ Information Learning Resources Requirement

|  |
| --- |
| **Environmental Horticulture: Nursery Requirements** - complete ~~25.00~~ 24.00 units |
| **AGRI 20** | Introduction to Plant Science | 3.00 |
| **AGRI 60** | Soil & Plant Nutrition | 3.00 |
| [AGRI 70](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=AGRI70) | Integrated Pest Management | 3.00 |
|  |  |  |
| [~~HORT 8~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT8) | ~~Plant Materials: Summer/Fall~~ | ~~3.00~~ |
|  |  |  |
| [~~HORT 12~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT12) | ~~Plant Materials: Winter/Spring~~ | ~~3.00~~ |
|  |  |  |
| [~~HORT 51~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT51) | ~~Introduction to Horticulture~~ | ~~3.00~~ |
|  |  |  |
| [HORT 70](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT70) | Plant Propagation | 3.00 |
| **HORT 72** | Greenhouse Production | 3.00 |
|  |  |  |
| [~~HORT 71~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT71) | ~~Nursery Production~~ | ~~3.00~~ |
|  |  |  |
| [HORT 144](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT144) | Landscape Irrigation | 3.00 |
| SUSAG 50 | Introduction to Sustainable Agriculture | 3.00 |
| SUSAG 64 | Warm Season Vegetable Production | 2.00 |
|  |  |  |
|

|  |
| --- |
| Complete any combination totaling **at least 1.00 units** from the following: |
| **~~Course~~** | **~~Description~~** | **~~Units~~** |
| [~~AGRI 98~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=AGRI98) | ~~Independent Study in Agriculture~~ | ~~1.00~~ |
|  |  |  |
| [~~AGRI 99I~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=AGRI99I) | ~~Agriculture Occupational Work Experience Internship~~ | ~~1.00~~ |
|  |  |  |

 |
| AGBUS 7 | Agricultural Economics | 3.00 |
| AGMEC 50 | Agricultural Machinery and Equipment Skills | 3.00 |
| AGRI 98 | Independent Study in Agriculture | 1.00 |
| AGRI 99I | Agriculture Occupational Work Experience Internship | 1.00 |
| HORT 71 | Nursery Production | 3.00 |
| HORT 91 | Landscape Construction/Estimation | 3.00 |
| SUSAG 65 | Cool Season Vegetable Production | 2.00 |
| SUSAG 103 | Composting for Commercial Organic Farming and Gardening | 1.00 |
| SUSAG 109 | Organic Crop Planning and Production | 4.00 |
| SUSAG 160 | Direct Farm Marketing | 2.00 |
|

|  |
| --- |
| ~~Complete any combination totaling~~ **~~at least 3.00 units~~** ~~from the following:~~ |
| **~~Course~~** | **~~Description~~** | **~~Units~~** |
| [~~AGBUS 2~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=AGBUS2) | ~~Agricultural Computer Applications~~ | ~~3.00~~ |
|  |  |  |
| [~~AGBUS 56~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=AGBUS56) | ~~Introduction to Agriculture Business and Management~~ | ~~3.00~~ |
|  |  |  |
| [~~AGBUS 61~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=AGBUS61) | ~~Agricultural Marketing~~ | ~~3.00~~ |
|  |  |  |
| [~~AGBUS 62~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=AGBUS62) | ~~Agricultural Sales and Communication~~ | ~~3.00~~ |
|  |  |  |
| [~~HORT 72~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT72) | ~~Greenhouse Production~~ | ~~3.00~~ |
|  |  |  |
| [~~HORT 80~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT80) | ~~Landscape Practices~~ | ~~3.00~~ |
|  |  |  |
| [~~HORT 91~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT91) | ~~Landscape Construction/Estimation~~ | ~~3.00~~ |
|  |  |  |
| [~~HORT 93~~](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=HORT93) | ~~Landscape Drafting and Design~~ | ~~3.00~~ |
|  |  |  |

 |
|   |
| **Information Learning Resources Requirement** - complete 1.00 units |
| [LIR 10](http://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?ck=LIR10) | Introduction to Information Literacy | 1.00 |

 |