

## B.S. in Horticulture at Oregon State University – Curriculum

Name: \_\_\_\_\_

ID: \_\_\_\_\_

Entering Status: \_\_\_\_\_

Option: **Viticulture & Enology**

Term Entering: \_\_\_\_\_

From: \_\_\_\_\_

### University Core Requirements:

(No single course can satisfy more than one core area)

#### Writing/Health

\_\_\_\_\_ WR 121 – English Composition (3) (Minimum passing grade of C–)

\_\_\_\_\_ WR II (3)

\_\_\_\_\_ COMM (3)

\_\_\_\_\_ Writing Intensive (CROP/SOIL 325 or HORT 318) (3)

\_\_\_\_\_ HHS 231 – Lifetime Fitness for Health (2)

\_\_\_\_\_ HHS 24\_ – Lifetime Fitness or PAC (1)

\_\_\_\_\_ Foreign Language (if deficient; waived for pre-1997 HS graduates)

#### Perspectives

(No more than 2 courses in one department)

\_\_\_\_\_ Cultural Diversity \_\_\_\_\_

\_\_\_\_\_ Literature/Arts \_\_\_\_\_

\_\_\_\_\_ Social Processes \_\_\_\_\_

\_\_\_\_\_ Western Culture \_\_\_\_\_

\_\_\_\_\_ Difference, Power, Dis. \_\_\_\_\_

\_\_\_\_\_ Biological Science (Met by major requirements)

\_\_\_\_\_ Physical Science (Met by major requirements)

\_\_\_\_\_ Phys. or Biol. Science (Met by major requirements)

#### Math

\_\_\_\_\_ MTH 105, 111, 112, 211, 241, 245 or 251 (4) (Met by major requirements)

**(Students must receive a grade of C-, or higher, to continue on to the next math course)**

#### Synthesis/Upper Division—choose from provided list

(Each course from a different department)

\_\_\_\_\_ Contemp. Global Issues (3) \_\_\_\_\_

\_\_\_\_\_ Science, Technology, Society (3) \_\_\_\_\_

#### Major Core:

##### General Science

\_\_\_\_\_ MTH 112, MTH 241, MTH 245, MTH 251, or ST 351 (4)

**(Prereq of C- or higher in MTH 111, or in MTH 112 if taking MTH 251)**

\_\_\_\_\_ CH 121 – General Chemistry (5) or CH 231 – General Chemistry (4) and CH 261 – Laboratory for Chemistry 231 (1)

\_\_\_\_\_ CH 122 – General Chemistry (5) or CH 232 – General Chemistry (4) and CH 262 – Laboratory for Chemistry 232 (1)

\_\_\_\_\_ CH 123 – General Chemistry (5) or CH 233 – General Chemistry (4) and CH 263 – Laboratory for Chemistry 233 (1)

**(Students must receive a grade of C-, or higher, to continue on to the next chemistry course in the series)**

\_\_\_\_\_ BI 211 – Principles of Biology (4)

\_\_\_\_\_ BI 212 – Principles of Biology (4)

\_\_\_\_\_ BI 213 – Principles of Biology (4)

**or the alternative BI 204–206 series:**

\_\_\_\_\_ BI 204 – Introductory Biology I (4)

\_\_\_\_\_ BI 205 – Introductory Biology II (4)

\_\_\_\_\_ BI 206 – Introductory Biology III (4)

##### Agricultural Science

\_\_\_\_\_ BOT 331 – Plant Physiology (4)

\_\_\_\_\_ BOT 350 – Introductory Plant Pathology (4)

\_\_\_\_\_ CROP 440 – Weed Management (4)

\_\_\_\_\_ ENT 311 – Introduction to Insect Pest Management (4)

\_\_\_\_\_ SOIL 205 – Soil Science (3) & SOIL 206 – Lab (1)

**OR** CSS 205 – Soil Science (4)

##### Orientation

\_\_\_\_\_ HORT 112 – Intro. to Horticultural Systems, Practices, & Careers (2)

##### Horticultural Science

\_\_\_\_\_ HORT 301 – Growth and Development of Horticultural Crops (3)

\_\_\_\_\_ HORT 311 – Plant Propagation (4)

\_\_\_\_\_ HORT 316 – Plant Nutrition (4)

##### Experiential Learning

\_\_\_\_\_ HORT 403 or 410 – Thesis/Internship (6-12)

\_\_\_\_\_ HORT 412 – Career Exploration: Internships & Research Projects (1)

##### Option Requirements

##### Plant Materials

\_\_\_\_\_ HORT 251 – Tree Fruits, Berries, Grapes & Nuts (2) *alt. year*

##### Ecology

(Select 1 of the following courses)

\_\_\_\_\_ BI 370 – Ecology (3) **(Prereq of C- or higher in BI 211, 212, 213)**

\_\_\_\_\_ BOT 341 – Plant Ecology (4)

\_\_\_\_\_ HORT 318 – Applied Ecology of Managed Ecosystems (3)

##### Technology

\_\_\_\_\_ PBG 430 – Plant Genetics (3)

##### Horticultural Communication

\_\_\_\_\_ HORT 407 – Seminar (1)

\_\_\_\_\_ HORT 411 – Horticulture Book Club (1)

(Select 1 of the following Writing Intensive Courses)

\_\_\_\_\_ CROP/SOIL 325 – Ag & Environmental Predicaments (3) (WIC)

\_\_\_\_\_ HORT 318 – Applied Ecology of Managed Ecosystems (3) (WIC)

##### Capstone

\_\_\_\_\_ HORT 480 – Case Studies in Cropping Systems Management (4)

##### Horticultural Science and Technology

\_\_\_\_\_ HORT 360 – Irrigation/Drainage (4)

(Select 1 of the following courses)

\_\_\_\_\_ AG 221 – Metals & Welding (3)

\_\_\_\_\_ AG 312 – Engine Theory & Operation (3)

\_\_\_\_\_ AG 391 – Farm Implements (3)

\_\_\_\_\_ AG 425 – Developments in Agricultural Mechanics (3)

\_\_\_\_\_ HORT 285 – Permaculture Design and Theory (4)

\_\_\_\_\_ HORT 314 – Principles of Turfgrass Maintenance (4)

\_\_\_\_\_ HORT 405 – Pesticide Application Training (4)

\_\_\_\_\_ HORT 414 – Precision Agriculture (4)

\_\_\_\_\_ HORT 495 – Horticultural Management Plans (3)

\_\_\_\_\_ PBG 450 – Plant Breeding (4)

\_\_\_\_\_ SOIL 316 – Nutrient Cycling in Agroecosystems (4)

##### Viticulture

\_\_\_\_\_ HORT 451 – Tree Fruit Physiology & Culture (4) *alt. year*

**OR**

\_\_\_\_\_ HORT 452 – Berry & Grape Physiology & Culture (4) *alt. year*

\_\_\_\_\_ HORT 453 – Grapevine Growth & Physiology (3)

\_\_\_\_\_ HORT 454 – Principles & Practices of Vineyard Production (3)

##### Fermentation Foundation Sciences

\_\_\_\_\_ BB 350 – Elementary Biochemistry (4)

**OR**

\_\_\_\_\_ BI 314 – Cell and Molecular Biology (4) **(Prereq of C- or higher in BI 211, 212, 213)**

\_\_\_\_\_ CH 331 – Organic Chemistry (4) **(Prereq of C- or higher in CH 123 or CH 233+263)**

\_\_\_\_\_ CH 332 – Organic Chemistry (4) **(Prereq of C- or higher in CH 331)**

\_\_\_\_\_ MB 302 – General Microbiology (3)

##### Fermentation Science

\_\_\_\_\_ FST 466 – Wine Production Principles (3) **(Prereq of C- or higher in BI 212, CH 331, and CH 332)**

\_\_\_\_\_ FST 467 – Wine Production, Analysis & Sensory Evaluation (5)

**Business Management***(Select 1 of the following courses)*

- \_\_\_\_\_ AEC 211 – Agricultural and Food Management (4)
- \_\_\_\_\_ AEC 221 – Agricultural and Food Marketing (3)
- \_\_\_\_\_ AEC 250 – Introduction to Environmental Economics & Policy (3)
- \_\_\_\_\_ AEC 251 – Introduction to Agricultural & Food Economics (3)
- \_\_\_\_\_ BA 215 – Fundamentals of Accounting (4)
- \_\_\_\_\_ BA 260 – Introduction to Entrepreneurship (4)
- \_\_\_\_\_ BA 463 – Family Business Management (4)

**Ecology & Sustainability Ecosystems Courses (Meets Synthesis Requirements)***(Each course must be from a different department)***Contemporary Global Issues***(Select 1 of the following courses)*

- \_\_\_\_\_ AEC 351 – Natural Resource Economics & Policy (3)
- \_\_\_\_\_ AEC 352 – Environmental Economics and Policy (3)
- \_\_\_\_\_ BI 301 – Human Impacts on Ecosystems (3)
- \_\_\_\_\_ CROP 330 – World Food Crops (3)
- \_\_\_\_\_ FES 365 – Issues in Natural Resources Conservation (3)
- \_\_\_\_\_ FW 325 – Global Crises in Resource Ecology (3)
- \_\_\_\_\_ GEOG 300 – Sustainability for the Common Good (3)
- \_\_\_\_\_ GEOG 330 – Geography Int'l Development & Globalization (3)
- \_\_\_\_\_ HORT/ENT 331 – Pollinators in Peril (3)
- \_\_\_\_\_ SUS 350 – Sustainable Communities (4)
- \_\_\_\_\_ Z 349 – Biodiversity: Causes, Consequences & Conservation (3)

**Science, Technology and Society***(Select 1 of the following courses)*

- \_\_\_\_\_ ANS 315 – Contentious Social Issues in Animal Agriculture (3)
- \_\_\_\_\_ ANS/FES/SOC 485 – Consensus and Natural Resources (3)
- \_\_\_\_\_ BI 348 – Human Ecology (3)
- \_\_\_\_\_ BOT 324 – Fungi in Society (3)
- \_\_\_\_\_ CH 374 – Technology, Energy, and Risk (3)
- \_\_\_\_\_ ENGR 350 – Sustainable Engineering (3)
- \_\_\_\_\_ ENGR 363 – Energy Matters (3)
- \_\_\_\_\_ ENSC 479 – Environmental Case Studies (3)
- \_\_\_\_\_ FES/TOX 435 – Genes and Chemicals in Agriculture: Value and Risk (3)
- \_\_\_\_\_ FES/NR/RNG 477 – Agroforestry (3)
- \_\_\_\_\_ FST 421 – Food Law (3)
- \_\_\_\_\_ FW 470 – Ecology & History: Landscapes Columbia Basin (3)
- \_\_\_\_\_ GEOG 300 – Sustainability for the Common Good (3)
- \_\_\_\_\_ GEOG 340 – Introduction to Water Science and Policy (3)
- \_\_\_\_\_ HORT 330/ENT 300 – Plagues, Pests, and Politics (3)
- \_\_\_\_\_ HST 481 – Environmental History of the United States (4)
- \_\_\_\_\_ HSTS 421 – Technology & Change (4)
- \_\_\_\_\_ NUTR 312 – Issues in Nutrition & Health (3)
- \_\_\_\_\_ PH 313 – Energy Alternatives (3)
- \_\_\_\_\_ PHL 325 – Scientific Reasoning (4)
- \_\_\_\_\_ PS 476 – Science & Politics (4)
- \_\_\_\_\_ SOIL 395 – World Soil Resources (3)
- \_\_\_\_\_ SUS 304 – Sustainability Assessment (4)

**Total Units (need 180) \_\_\_\_\_****Upper Div. Units (need 60) \_\_\_\_\_****Research Track (Optional)**

- \_\_\_\_\_ HORT 406 – Projects: Data Presentations (1)
- \_\_\_\_\_ MTH 251 – Differential Calculus (4)
- \_\_\_\_\_ MTH 252 – Integral Calculus (4)
- \_\_\_\_\_ ST 351 – Introduction to Statistical Methods (4)

*(Select 3 of the following)*

- \_\_\_\_\_ BB 350 – Elementary Biochemistry (4)
- \_\_\_\_\_ BI 370 – Ecology (3)
- \_\_\_\_\_ BOT 341 – Plant Ecology (4)
- \_\_\_\_\_ CH 331 – Organic Chemistry (4)
- \_\_\_\_\_ CH 332 – Organic Chemistry (4)
- \_\_\_\_\_ CH 337 – Organic Chemistry Lab (4)
- \_\_\_\_\_ MB 230 – Introductory Microbiology (4)
- \_\_\_\_\_ PH 201 – General Physics (5)
- \_\_\_\_\_ PH 202 – General Physics (5)

**Grade Requirements**

Students pursuing a major or minor in horticulture are required to receive a grade of C– or better in all HORT (horticulture) and PBG (plant breeding and genetics) courses that are required for completion of their major and option, or minor. If a grade below C– is received in a HORT or PBG course required for their major and option, or minor, a student will need to retake the course and receive a grade of C– or better. If the grade below a C– was received for a course that is part of a group of courses where the student can select which courses to take (i.e., they do not need to take all of the courses, just a specified number of courses or credits) then it would be acceptable for the student to substitute a course for the one that they had received a grade below a C–. For example, in most of our options, a student needs to complete three of four plant identification courses. If a student received a grade lower than a C– in one of the classes, they could either retake the same course or complete the other three courses with a grade of C– or better.