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

Name: _______________________________
ID: _______________________________
Entering Status: ______________________

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 (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, Disc.
______ 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, 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 251 – Differential Calculus (4)
(Prereq of C– or higher in MTH 111, or in MTH 112 if taking MTH 251)
______ CH 231 – General Chemistry (4) & CH 261 – Lab for Chemistry 231 (1)
______ CH 232 – General Chemistry (4) & CH 262 – Lab for Chemistry 232 (1)
______ CH 233 – General Chemistry (4) & CH 263 – Lab 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)

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 – Introduction 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 – Thesis (6-12)
Option requires HORT 403 – Thesis to fulfill Experiential Learning requirement in the major core.
______ HORT 412 – Career Exploration: Internships & Research Projects (1)

Option: Horticultural Research
Term Entering: ______________________
From: ______________________________

Option Requirements

Plant Materials
(Select 1 of the following courses)
______ BOT 313 – Plant Structure (4)
______ BOT 321 – Plant Systematics (4)
______ BOT 425 – Flora of the Pacific Northwest (3)
______ CROP 200 – Crop Ecology & Morphology (3)
______ FES 241 – Dendrology (3)
______ HORT 226 – Landscape Plant Materials I (4)
______ HORT 228 – Landscape Plant Materials II (4)
______ HORT 251 – Temperate Tree Fruit, Berries, Grapes, and Nuts (2) alt. year
______ HORT 255 – Herbaceous Ornamental Plant Materials (3)
______ HORT 433 – Systems & Adaptations of Vegetable Crops (4)

Ecology
(Select 1 of the following courses)
______ BI 370 – Ecology (3)
______ BOT 341 – Plant Ecology (4)
______ HORT 318 – Applied Ecology of Managed Ecosystems (3)

Technology
(Select 1 of the following courses)
______ HORT 414 – Precision Agriculture (4)
______ PBG 441 – Plant Tissue Culture (4)

Horticultural Communication
______ HORT 406 – Projects: Data Presentations (1)
______ HORT 407 – Seminar (1)
______ HORT 411 – Horticulture Book Club (1)

(Select 1 of the following Writing Intensive Courses)
______ BOT 323 – Flowering Plants of the World (3)
______ SUS 325 – Ag & Environmental Predicaments (3)
______ HORT 318 – Applied Ecology of Managed Ecosystems (3)

Capstone
(Select 1 of the following courses)
______ HORT 452 – Berry & Grape Physiology & Culture (4) alt. year
______ HORT 453 – Grapevine Growth & Physiology (3)
______ HORT 454 – Principles & Practices of Vineyard Production (3)
______ HORT 463 – Seed Biology (3) alt. year
______ HORT 481 – Horticulture Production Case Studies (4)
______ PBG 450 – Plant Breeding (4)

Advanced Horticultural Science
______ PBG 430 – Plant Genetics (3)

Math and Science Foundation
______ MTH 251 – Differential Calculus (4) (Prereq of C– or higher in MTH 112)
______ MTH 252 – Integral Calculus (4) (Prereq of C– or higher in MTH 252)
______ ST 351 – Introduction to Statistical Methods (4)

(Select 3 of the following courses)
______ BB 350 – Elementary Biochemistry (4)
______ 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)
______ PH 201 – General Physics (5)
______ PH 202 – General Physics (5)

Select 12 credits of upper-division Horticulture and Life Science courses (with approval of research mentor and advisor)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Class</th>
<th>Credits</th>
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From: ___________________________________
To: ____________________________________

Option: Horticultural Research
Term Entering: ______________________
From: ______________________________

Option Requirements

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

Contemporary Global Issues
(Select 1 of the following courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>AEC 351</td>
<td>Natural Resource Economics &amp; Policy</td>
<td>3</td>
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<tr>
<td>AEC 352</td>
<td>Environmental Economics and Policy</td>
<td>3</td>
</tr>
<tr>
<td>BI 301</td>
<td>Human Impacts on Ecosystems</td>
<td>3</td>
</tr>
<tr>
<td>CROP 330</td>
<td>World Food Crops</td>
<td>3</td>
</tr>
<tr>
<td>FES 365</td>
<td>Issues in Natural Resources Conservation</td>
<td>3</td>
</tr>
<tr>
<td>FW 325</td>
<td>Global Crises in Resource Ecology</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 300</td>
<td>Sustainability for the Common Good</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 330</td>
<td>Geography International Development &amp; Globalization</td>
<td>3</td>
</tr>
<tr>
<td>HORT/ENT 331</td>
<td>Pollinators in Peril</td>
<td>3</td>
</tr>
<tr>
<td>SUS 350</td>
<td>Sustainable Communities</td>
<td>4</td>
</tr>
<tr>
<td>Z 349</td>
<td>Biodiversity: Causes, Consequences &amp; Conservation</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS 315</td>
<td>Contentious Social Issues in Animal Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>ANS/FES/SOC 485</td>
<td>Consensus and Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>BI 348</td>
<td>Human Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BOT 324</td>
<td>Fungi in Society</td>
<td>3</td>
</tr>
<tr>
<td>CH 374</td>
<td>Technology, Energy, and Risk</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 350</td>
<td>Sustainable Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 363</td>
<td>Energy Matters</td>
<td>3</td>
</tr>
<tr>
<td>ENSC 479</td>
<td>Environmental Case Studies</td>
<td>3</td>
</tr>
<tr>
<td>FES/TOX 435</td>
<td>Genes and Chemicals in Agriculture: Value and Risk</td>
<td>3</td>
</tr>
<tr>
<td>FES/NR 477</td>
<td>Agroforestry</td>
<td>3</td>
</tr>
<tr>
<td>FST 421</td>
<td>Food Law</td>
<td>3</td>
</tr>
<tr>
<td>FW 470</td>
<td>Ecology &amp; History: Landscapes Columbia Basin</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 300</td>
<td>Sustainability for the Common Good</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 340</td>
<td>Introduction to Water Science and Policy</td>
<td>3</td>
</tr>
<tr>
<td>HORT 330/ENT 300</td>
<td>Plagues, Pests, and Politics</td>
<td>3</td>
</tr>
<tr>
<td>HST 481</td>
<td>Environmental History of the United States</td>
<td>4</td>
</tr>
<tr>
<td>HSTS 421</td>
<td>Technology &amp; Change</td>
<td>4</td>
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<tr>
<td>NUTR 312</td>
<td>Issues in Nutrition &amp; Health</td>
<td>3</td>
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<tr>
<td>PHL 313</td>
<td>Energy Alternatives</td>
<td>3</td>
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<tr>
<td>PHL 325</td>
<td>Scientific Reasoning</td>
<td>4</td>
</tr>
<tr>
<td>PS 476</td>
<td>Science &amp; Politics</td>
<td>4</td>
</tr>
<tr>
<td>SOIL 395</td>
<td>World Soil Resources</td>
<td>3</td>
</tr>
<tr>
<td>SUS 304</td>
<td>Sustainability Assessment</td>
<td>4</td>
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Total Units (need 180) _______

Upper Div. Units (need 60) _______

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.

* = Meets bacc core requirement