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 grade of C– required)
_______ 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
_______ 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)
(Students must receive minimum grade of C– to continue to 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)
_______ CH 261 – Laboratory for Chemistry 231 (1)
_______ CH 122 – General Chemistry (5) or CH 232 – General Chemistry (4)
_______ CH 262 – Laboratory for Chemistry 232 (1)
_______ CH 123 – General Chemistry (5) or CH 233 – General Chemistry (4)
_______ CH 263 – Laboratory for Chemistry 233 (1)
(Students must receive minimum grade of C– to continue to next chem. course)
_______ 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 Sci. (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 or 410 – Thesis/Internship (6-12)
_______ HORT 412 – Career Exploration: Internships & Research Projects (1)

Option: Ecological Management of Turf, Landscape, and Urban Horticulture

Term Entering: ____________________________
From: ____________________________________

Option Requirements

Plant Materials
(Select 1 of the following courses)
_______ HORT 226 – Landscape Plant Materials I (4)
_______ HORT 228 – Landscape Plant Materials II (4)
(Select 1 additional course from the above or below courses)
_______ BOT 313 – Plant Structure (4)
_______ BOT 321 – Plant Systematics (tenance)
_______ BOT 323 – Flowering Plants of the World (3)
_______ BOT 425 – Flora of the Pacific Northwest (3)
_______ FES 241 – Dendrology (3)
_______ HORT 251 – Temperate Tree Fruits, Berries, Grapes, and Nuts (2) alt. year
_______ HORT 255 – Herbaceous Plant Materials (3)
_______ HORT 433 – Systems & Adaptations of Vegetable Crops (4)
_______ RNG 353 – Wildland Plant Identification (4)

Ecology
_______ HORT 318 – Applied Ecology of Managed Ecosystems (3)

Technology
(Select 1 of the following courses)
_______ AG 312 – Engine Theory and Operation (3)
_______ FW 303 – Survey Geographic Information Systems in Natural Resource (3)
_______ GEOG 360 – GISCIENCE I: Geographic Information Systems and Theory (4)
_______ HORT 380 – Sustainable Landscape Design (3)
_______ HORT 414 – Precision Agriculture (4)

Horticultural Communication
_______ HORT 318 – Applied Ecology of Managed Ecosystems (3) (WIC)
_______ HORT 407 – Seminar (1)
_______ HORT 411 – Horticulture Book Club (1)

Capstone
(Select 1 of the following courses)
_______ FES 445/FW 445 – Ecological Restoration (4)
_______ HORT 418 – Golf Course Maintenance (4)
_______ HORT 455 – Urban Forest Planning & Management (4)
_______ HORT 481 – Horticulture Production Case Studies (4)

Science and Technology of Managed Ecosystems
*GEOG 340 – Introduction to Water Science & Policy (3)
_______ HORT 314 – Principles of Turfgrass Maintenance (4)
_______ HORT 315 – Sustainable Landscapes: Maint., Conserv., Restor. (4)
_______ HORT 358 – Landscape Construction Techniques (4)
_______ HORT 360 – Irrigation/Drainage (4)

(Select 2 of the following courses, minimum 6 credits)
_______ *BI 301 – Human Impacts on Ecosystems (3)
_______ BOT 488 – Environmental Physiology of Plants (3)
_______ SUS 325 – Ag and Environmental Predicaments (WIC) (3)
_______ CROP 480 – Case Studies in Cropping Systems Management (4)
_______ FES 445/FW 445 – Ecological Restoration (4)
_______ FW 462 – Ecosystem Services (3)
_______ GEOG 450 – Land Use in the American West (3)
_______ HORT 285 – Permaculture Design and Theory: Certificate Course (4)
_______ HORT 319 – Restoration Horticulture (3)
_______ *HORT 330/ENT 300 – Plagues, Pests, and Politics (3)
_______ HORT 350 – Urban Forestry (3)
_______ HORT 351 – Floriculture & Greenhouse Systems (4) alt. year
_______ HORT 361 – Plant Nursery Systems (4) alt. year
_______ HORT 405 – Pesticide Applicator Training (4)
_______ HORT 414 – Precision Agriculture (4)
_______ HORT 418 – Golf Course Maintenance (4)
_______ HORT/ENT 444 – Insect Agroecology (3)
_______ HORT/447 – Arboriculture (4)
_______ HORT 455 – Urban Forest Planning & Management (4)
_______ HORT 481 – Horticulture Production Case Studies (4)
_______ HORT 485 – Advanced Permaculture Design (3)
_______ HORT 499 – Building Sustainable Landscapes for the 21st Century (1)
RNG 355 – Desert Watershed Management (3)
RNG 421 – Wildland Restoration and Ecology (4)
SOIL 316 – Nutrient Cycling in Agroecosystems (4)
SOIL 455 – Biology of Soil Ecosystems (4)
*SUS 304 – Sustainability Assessment (4)
WSE 111 – Renewable Materials for a Green Planet (2)
WSE 475 – Environmental Assessment of Building Materials (4)

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 (BA 315 – Account. Mng.) (4)
BA 260 – Introduction to Entrepreneurship (4)
BA 365 – Family Business Management (4)
NMC 311 – Introduction to Nonprofit Management (3)

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 330 – Geography International Development & Globalization (3)
*HORT/ENT 331 – Pollinators in Peril (3)
*SUS 350 – Sustainable Communities (4)
*WSE 470 – Forests, Wood, and Civilization (3)
*Z 349 – Biodiversity: Causes, Consequences & Conservation (3)

Science, Technology and Society
(Select 1 of the following courses)
*AGRI 411 – Introduction to Food Systems: Local to Global (3)
*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 331 – Organic Chemistry (4)
*CH 332 – Organic Chemistry (4)
*CH 337 – Organic Chemistry Lab (4)
*ENGR 350 – Sustainable Engineering (3)
*ENGR 363 – Energy Matters (3)
*ENS 479 – Environmental Case Studies (3)
*ENGR 477 – Agroforestry (3)
*FST 421 – Food Law (3)
*FW 470 – Ecology & History: Landscapes Columbia Basin (3)
*GEOG 300 – Geography for the Common Good (3)
*GEOG 330 – Geography International Development & Globalization (3)
*HST 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)

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.

Total Units (need 180) __________
Upper Div. Units (need 60) _______

* = Meets bacc core requirement