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 (BOT 323, SUS 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 grade of C–, or higher, to continue on 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, or MTH 251 (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 313 – 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
_______ PBG 403 or 410 – Thesis/Internship (3-12)
_______ HORT 412 – Career Exploration: Internships & Research Projects (1)

Option: Plant Breeding & Genetics
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 Fruits, Berries, Grapes, and Nuts (2) alt. year
_______ HORT 255 – Herbaceous Ornamental Plant Materials (3)
_______ HORT 433 – Systematics & Adaptations of Veg. Crops (4)

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 (WIC) (3)

Technology
_______ PBG 441 – Plant Tissue Culture (4)

Agricultural Communication
_______ CROP/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 (WIC) (3)
_______ SUS 325 – Ag & Environmental Predicaments (WIC) (3)
_______ HORT 318 – Applied Ecology of Managed Ecosystems (WIC) (3)

Capstone
_______ PBG 450 – Plant Breeding (4)

Science and Technology
_______ HORT 463 – Seed Biology (3) alt. year
_______ PBG 430 – Plant Genetics (3)
_______ ST 351 – Introduction to Statistical Methods (4)

Production and Technology
(Select 3 of the following courses, for 9 credits minimum)
_______ BOT 332 – Lab Techniques in Plant Bio (3)
_______ CROP 199 – Special Studies: Issues in Sustainable Ag (1)
_______ CROP 280 – Introduction to Complexity of Oregon Cropping Systems (4)
_______ CROP/HORT 300 – Crop Production in PNW Agroecosystems (4)
_______ CROP 310 – Forage Production (4)
_______ CROP 330 – World Food Crops (3)
_______ CROP 460 – Seed Production (3)
_______ CROP 590 – Experimental Design in Agriculture (4)
_______ CSS 320 – Principles of Oil & Fiber Crop Production (1)
_______ CSS 321 – Principles of Cereal Crop Production (1)
_______ CSS 322 – Principles of Potato Production (1)
_______ HORT 260 – Organic Farming & Gardening (3)
_______ HORT 351 – Floriculture & Greenhouse Systems (4) alt. year
_______ HORT 360 – Irrigation/Drainage (4)
_______ HORT 361 – Plant Nursery Systems (4) alt. year
_______ HORT/ENT 444 – Insect Agroecology (3)
_______ HORT 421 – Herbs, Spices & Medicinal Plants (3)
_______ HORT 452 – Berry & Grape Physiology & Culture (4) alt. year
_______ HORT 453 – Grapevine Growth & Physiology (3)
_______ HORT 454 – Principles & Practices of Vineyard Production (3)
_______ HORT 456 – Physiology & Production of Berry Crops (4)
_______ MB 302 – General Microbiology (3)
_______ MB 303 – General Microbiology Lab (2)
_______ SOIL 316 – Nutrient Cycling in Agroecosystems (4)

Plant Synthesis
_______ CROP/HORT 480 – Case Studies in Cropping Systems Management (4)
OR_______ HORT 481 – Horticulture Production Case Studies (4)

Option: Plant Breeding & Genetics
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 International 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)
- *ENS 479 – Environmental Case Studies (3)
- *FES/TOX 435 – Genes and Chemicals in Agriculture: Value and Risk (3)
- *FES/NR 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)
- *PH 313 – Energy Alternatives (3)
- *PHL 325 – Scientific Reasoning (4)
- *PS 476 – Science & Politics (4)
- *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)