

Horticulture Degree Checklist

Name: _____
ID: _____
Entering Status: _____

Option: **Plant Breeding & Genetics**
Term Entering: _____
From: _____

University Core Requirements:

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

Writing/Health

- _____ WR 121 – English Composition (3)
- _____ WR II (3)
- _____ COMM (3)
- _____ Writing Intensive (BOT 323, 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)

- _____ Western Culture _____
- _____ Cultural Diversity _____
- _____ Literature/Arts _____
- _____ Social Processes _____
- _____ 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)

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 (4) or MTH 241 (4) or MTH 245 (4)
- _____ BI 211 – Principles of Biology (4)
- _____ BI 212 – Principles of Biology (4)
- _____ BI 213 – Principles of Biology (4)
- _____ CH 121. General Chemistry (5)
- or 231 – General Chemistry (4) and CH 261 Laboratory for Chemistry 231 (1)
- _____ CH 122. General Chemistry (5)
- or 232 – General Chemistry (4) and CH 262 Laboratory for Chemistry 232 (1)
- _____ CH 123. General Chemistry (5)
- or 233 – General Chemistry (4) and CH 263 Laboratory for Chemistry 233 (1)

Orientation

- _____ CROP/HORT 101 – Intro. to Horticulture, Crop, Soil & Insect Science (1)

Plant, Soil and Insect Science

- _____ BOT 331 – Plant Physiology (4)
- _____ BOT 350—Introductory Plant Pathology (4)
- _____ CROP 440—Weed Management (4)
- _____ ENT 311 – Intro. to Insect Pest Management (4)
- _____ SOIL 205 – Soil Science (4)

Experiential Learning

- _____ PBG 403 or 410 –Thesis/Internship (3-12 cr)
- _____ CROP/HORT 407 – Senior Seminar (1)

Ecology (Select 1 of the following courses)

- _____ BI 370 – Ecology (3)
- _____ BOT 341 – Plant Ecology (4)
- _____ HORT 318 – Applied Ecology of Managed Ecosystems (WIC) (3)

Technology

- _____ PBG 441 – Plant Tissue Culture (4)

Writing Intensive (Select 1 of the following courses)

- _____ BOT 323 – Flowering Plants of the World (WIC) (3)
- _____ CROP/SOIL 325-- Ag & Environmental Predicaments (WIC) (3)
- _____ HORT 318 – Applied Ecology of Managed Ecosystems (WIC) (3)

Capstone

- _____ PBG 450 – Plant Breeding (4)

Option Requirements

Horticultural Science

- _____ HORT 301 – The Biology of Horticulture (3)
- _____ HORT 311 – Plant Propagation (4)
- _____ HORT 316 – Plant Nutrition (4)
- _____ HORT 411 – Horticulture Book Club (1)
- _____ HORT 412 – Career Exploration (1)

Plant Materials

(Select 2 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 141 – Tree & Shrub Identification (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) *alt. year*

Science and Technology

- _____ HORT 463 – Seed Biology (3) *alt years*
- _____ PBG 430 – Plant Genetics (3)
- _____ ST 351 – Intro to Statistical Methods (4)

Production and Technology

(Select 4 of the following courses, for 12 credits minimum)

- _____ BOT 332 – Lab Techniques in Plant Bio (3)
- _____ CROP 199 – Special Studies: Issues in Sustainable Ag (1)
- _____ 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 361 – Plant Nursery Systems (4) *alt. year*
- _____ HORT 452 – Berry & Grape Physiology & Culture (4) *alt. year*
- _____ HORT 453 – Grapevine Growth & Physiology (3)
- _____ HORT 454 – Principles & Practices of Vineyard Production (3)
- _____ MB 302 – General Microbiology (3)
- _____ MB 303 – General Microbiology Lab (2)
- _____ PBG 513 – Plant Genetic Engineering (3)
- _____ SOIL 316 – Nutrient Cycling in Agroecosystems (4)

Plant Synthesis

- _____ CROP/HORT 480 – Case Studies in Cropping Systems 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)

- _____ AREC 351 – Natural Resource Economics & Policy (3)
- _____ BI 301 – Human Impacts on Ecosystems (3)
- _____ BI 306 – Environmental Ecology (3)
- _____ BI 349 – Biodiversity: Causes, Consequences & Conservation (3)
- _____ CROP 330 – World Food Crops (3)
- _____ FES 365 – Issues in Natural Resources Conservation (3)
- _____ FW 325 – Global Crises in Resource Ecology (3)
- _____ GEO 300 – Sustainability for the Common Good (3)
- _____ GEO 330 – Geography of International Development & Globalization (3)

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

- _____ ANS 315 – Contentious Social Issues in Animal Agriculture (3)
- _____ AREC 352 – Environmental Economics & Policy (3)
- _____ BI/FES 435 - Genes and Chemicals in Agriculture: Value and Risk (3)
- _____ CH 374 – Technology, Energy, and Risk (3)
- _____ CSS/SOIL 395 – World Soil Resources (3)
- _____ ENGR 350 – Sustainable Engineering (3)
- _____ ENSC 479 – Environmental Case Studies (3)
- _____ FST 421 – Food Law (3)
- _____ FW 485 – Consensus & Natural Resources (3)
- _____ GEO 300 – Sustainability for the Common Good (3)
- _____ GEO 335 – Introduction to Water Science and Policy (3)
- _____ HST 481 – Environmental History of the United States (4)
- _____ HSTS 421 – Technology & Change (4)
- _____ HSTS 470 – Ecology & History: Landscapes Columbia Basin (3)
- _____ NUTR 312 – Issues in Nutrition & Health (3)
- _____ PH 313 – Energy Alternatives (3)
- _____ PS 476 – Science & Politics (2)
- _____ RNG 477 – Agroforestry (3)
- _____ Z 348 – Human Ecology (3)

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 an option in Plant Breeding and Genetics, under the Horticulture Major, and under the Crop & Soil Science Major, are required to receive a grade of C- or better in all BOT, CROP, CSS, FOR, HORT, MB, PBG, SOIL and ST courses required within their major and option.