Crop and Soil Science Degree Checklist

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 (SOIL 325) (3)
HSS 231 – Lifetime Fitness for Health (2)
HSS 24 – Lifetime Fitness for 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 (3) (Met by major requirements)

Synthesis/Upper Division (Each course from a different department)
Contemp. Global Issues (3) (*soil science electives meeting requirement)
Science, Tech., Society (3) (**soil science electives meeting requirement)

Major Core:

General Science Core
MTH 111 – College Algebra (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 CH231. General Chemistry (4) and CH 261. Laboratory for Chemistry 231 (1)
CH 122. General Chemistry (5)
or CH232. General Chemistry (4) and CH 262. Laboratory for Chemistry 232 (1)
CH 123. General Chemistry (5)
or CH233. 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)

Orientation
SOIL 101 - Intro. Horticulture, Crop, Soil, & Insect Science (1)

Agricultural Sciences
ENT 311 – Intro. to Insect Pest Management (4)
SOIL 205 – Soil Science (4)

(Select 1 of the following courses)
BOT 331 – Plant Physiology (4)
CH 340 – Crop Ecol. & Morphol. (3)
HORT 301 – Biology of Horticulture (3)

(Select 1 of the following courses)
HORT 316 – Plant Nutrit. (4)
SOIL 316 – Nutrient Cycling in Agroeco. (4)

Experiential Learning
SOIL 401, 403 or 410 – Research/Thesis/Internship (3)
SOIL 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 (3)
RNG 341 – Rangeland Ecology and Mngt. (3)

Technology
SOIL 468 – Soil Landscape Analysis (3) alt. year

Writing Intensive
SOIL 325 – Ag & Envr. Predicaments: A Case Study Approach (WIC) (3)

Capstone
SOIL 475 – Soil Resource Potentials (4)

Option: Soil Science

Term Entering: ____________________________
From: ____________________________

Option Requirements

Soils Research Track
GEO 201 or 202 or 203 (4)
MTH 251 (4)
PH 201, 202 – General Physics (10)
SOIL 435 - Environmental Soil Physics (3)
SOIL 445 – Environmental Soil Chemistry (3)
SOIL 455 – Biology of Soil Ecosystems (4)
SOIL 466 – Soil Morphology & Classification (4)
ST 351 – Intro. to Statistical Methods (4)

OR

General Soils Track
GEO 201 or 202 or 203 (4)
MTH 112 (4) or MTH 241 (4) or MTH 251 (4)
SOIL 466 – Soil Morphology & Classification (4)
ST 351 – Intro. to Statistical Methods (4)

Select 1 of the following courses:
SOIL 435 – Environmental Soil Physics (3) alt. year
SOIL 445 – Environmental Soil Chemistry (3) alt. year
SOIL 455 – Biology of Soil Ecosystems (4)
SOIL 366 – Ecosystems of Wildland Soils (3) alt. year

Soil Science Electives (Select a minimum of 12 credits)

Nutrient Cycling
AREC 211 – Management in Agriculture (4)
AREC 250 – Intro to Environmental Econ & Policy (3)
BI/EFS/TOX 435 – Genes & Chemicals in Agriculture: Value & Risk (3)**
BOT 331 – Plant Physiology (4)
BOT 547 – Nutrient Cycling (3)
CH 130 – General Chemistry of Living Systems (4)
CROP 199 – Special Topics: Issues in Sustainable Ag (1)
FES 365 – Iss. in Natural Resource Conservation (3)*
HORT 316 – Plant Nutrition (4)
RNG 341 – Rangeland Ecology & Management (3)
SOIL 395 – World Soil Resources (3)**
SOIL 525 – Mineral–Organic Matter Interactions (3)
TOX 430 – Chemical Behavior in the Environment (3)

Soil Biology/Ecology
BI 311 – Genetics (4)
BI 314 – Cellular & Molecular Biology (4)
BI/EFS/TOX 435 – Biotech: Ag, Food, & Resource Issues (3)**
BI 370 – Ecology (3)
BOT 331 – Plant Physiology (4)
BOT 332 – Lab Techniques in Plant Biology (3)
BOT 341 – Plant Ecology (3)
CH 351 – Organic Chemistry (4)
CH 332 – Organic Chemistry (4)
FES 341 – Forest Ecology (3)
FES 564 – Interactions of Vegetation & Atmosphere (3)
MB 302 – General Microbiology (3)
MB 303 – General Microbiology Lab (2)
MB 448 – Microbial Ecology (3)
SOIL 366 – Ecosystems of Wildland Soils (3) alt. year

Soil Hydrology
CE 412 – Hydrology (4)
CE 413 – GIS in Water Resources (3)
FE 430 – Watershed Processes (4)
FE 434 – Forest Watershed Management (4)
GEO 487 – Hydrogeology (4)
GEOG 340 – Intro to Water Science & Policy (3)**
GEOG 360 – Intro to Geographic Info Systems (4)
GEOG 440 – International Water Resources Management (3)
MTH 251 – Differential Calculus (4)
MTH 252 – Integral Calculus (4)
PH 202 – General Physics (5)

alt. year
alt. year
alt. year
### Spatial Analysis/Land Use

- **AREC 250** – Intro. Enviro. Econ. & Policy (3)
- **FE 434** – Forest Watershed Management (4)
- **FES 141** – Tree & Shrub Identification (3)
- **FES 365** – Issues in Natural Resources Con. (3)*
- **GEO 432** – Applied Geomorphology (3)
- **GEOG 201** – Foundations of Geospatial Science and GIS (4)
- **GEOG 340** – Intro to Water Science & Policy (3)**
- **GEOG 360** – Intro to Geographic Info. Systems (4)
- **GEOG 450** – Land Use (3)
- **HORT 414** – Information Systems in Agriculture (4)
- **PH 201** – General Physics (5)
- **PH 202** – General Physics (5)
- **RNG 341** – Rangeland Ecology & Management (3)
- **SOIL 366** – Ecosystems of Wildland Soils (3) alt. year

### Sustainable Systems

- **AREC 250** – Intro Environ. Economics & Policy (3)
- **BI 301** – Human Impacts on Ecosystems (3)*
- **BI/Z 349** – Biodiv: Causes, Conseqs., & Conserv. (3)*
- **BOT 350** – Introductory Plant Pathology (4)
- **CROP 199** – Special Topics: Issues in Sust. Agriculture (1)
- **CROP 300** – Crop Production in Pacific Northwest Agroecosystems (4)
- **CROP 330** – World Food Crops (3)*
- **CROP 440** – Weed Management (4)
- **CROP 460** – Seed Production (3)
- **CROP 480** – Case Studies Cropping Syst. Manage. (4)
- **GEOG 300** – Sustainability for the Common Good (3)**
- **HORT 260** – Organic Farming & Gardening (3)
- **SOIL 499** – Special Topics (1)

### Water/Watershed Management

- **AREC 250** – Intro to Environ. Econ. & Policy (3)
- **AREC 351** – Natural Resource Economics & Policy (3)
- **FE 430** – Watershed Processes (4)
- **FE 434** – Forest Watershed Management (4)
- **FES 365** – Issues in Natural Resources Conservation (3)*
- **FW 326** – Integrated Watershed Management (3)
- **GEO 322** – Surface Processes (4)
- **GEOG 340** – Introduction to Water Science & Policy (3)**
- **PS 475** – Environmental Politics & Policy (4)
- **RNG 355** – Desert Watershed Management (3)
- **RNG 455** – Riparian Ecology & Management (3)
- **SOIL 366** – Ecosystems of Wildland Soils (3) alt. year

**Total Units (need 180) __________**

**Upper Div. Units (need 60) __________**