### Crop & Soil Science Degree Checklist

#### 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 (CROP 325) (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 (ECON 201 or AEC 250)
    - 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** *(Each course from a different department)*
    - Contemp. Global Issues (3) *(Met by CROP 330 or FES 365)*
    - Science, Technology, Society (3) *(Course meets requirement)*
  - **Major Core**
    - **General Science Core**
      - MTH 241 or 245 or 251 § (4)
      - BI 211, BI 212, BI 213 – Principles of Biology § (4,4,4)
      - or BI 204, BI 205, BI 206 – Introductory Biology (4,4,4)
      - CH 231 – General Chemistry (4) and CH 261 Laboratory for Chemistry 231 (1)
      - CH 232 – General Chemistry (4) and CH 262 Laboratory for Chemistry 232 (1)
      - 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**
  - **Orientation**
    - CROP/ENT/HORT/SOIL 101 — Intro. Horticulture, Crop, Soil, Insect Science (1)
  - **Agricultural 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 (3) and SOIL 206 Soil Science Lab for Soils 205 (1)
  - **Experiential Learning**
    - CROP 401, 403 or 410 – Research/Thesis/Internship (3 or more credits)
    - CROP 407 – Senior Seminar (1)
  - **Ecology** *(Select 1 of the following courses)*
    - BI 370 – Ecology (3)
    - BOT 341 – Plant Ecology § (4)
    - RNG 341 – Rangeland Ecology and Mgmt. (3)
  - **Technology**
    - CROP 414-Precision Agriculture (4)
  - **Writing Intensive**
    - CROP/SOIL 325 – Ag & Envr. Predicaments: A Case Study Approach *(WIC)* (3)
  - **Capstone**
    - CROP/HORT 480 – Case Studies in Cropping Systems Management (4)

#### Option Requirements

##### Agronomy Core
- CROP 200 – Crop Ecology & Morphology (3)
- CROP 280 – Intro. to Complexity of Oregon Cropping Systems (4)
- CROP 319 – Principles of Field Crop Production (3)
- CROP 330 – World Food Crops (3)
- PBG/HORT 430 – Plant Genetics (3)
- PBG/HORT 431 – Plant Genetics Recitation (1)
- SOIL 316 – Nutrient Cycling in Agroecosystems (4)
- ST 351 or ST 411 (4)

##### Agronomy Electives
- *(Choose at least 7-8 credits from the following courses)*
  - BEE 439 – Irrigation Principles & Practices (4)
  - BOT 333 – Plant Structure (4)
  - CROP 310 – Forage Production (4)
  - CROP 420 – Seed Science & Technology (3) *(E-campus only)*
  - CROP 460 – Seed Production (3)
  - HORT 316 – Plant Nutrition (4)

##### General Electives
- *(Choose at least 7-8 credits from the following courses)*
  - BB 350 § – Elementary Biochemistry (4)
  - BOT 321 § – Plant Systematics (4)
  - BOT 414 § – Agrostology (4)
  - BOT 442 – Plant Population Ecology (3)
  - BOT 480 – Photosynthesis and Photobiology (3)
  - BOT 488 – Environmental Physiology of Plants (3)
  - CH 313 § – Organic Chemistry (4)
  - CH 332 § – Organic Chemistry (4)
  - CH 337 § – Organic Chemistry Lab (4)
  - CROP 199 – Special Studies: Issues in Sustainable Ag (1) *(repeatable)*
  - CROP/HORT 300 – Crop Production in Pacific Northwest Agroecosystems (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)
  - CROP 418 – Toxic Plants in PNW Pastures (1) *(E-campus only)*
  - FES 365 – Issues Natural Resources Conservation (3) *(Cascades, Ecosystem)*
  - GEOG 340 – Intro to Water Science & Policy* (3)
  - HORT/CROP 433 – Systems & Adaptation of Vegetable Crops (4)
  - HORT/CROP 463 – Seed Biology (3) *(alt. year)*
  - MB 230 § – Introductory Microbiology (4)
  - PGB 441 – Plant Tissue Culture (4)
  - PGB 450 – Plant Breeding (4)
  - PH 201 § – General Physics (5)
  - SOIL 395 – World Soil Resources § (3) *(E-campus only)*
  - SOIL 435 – Environmental Soil Physics (3)
  - SOIL 445 – Environmental Soil Chemistry (3)
  - SOIL 455 – Biology of Soil Ecosystems (4)
  - SOIL 466 – Soil Morphology and Classification (4)
  - SOIL 475 – Soil Resource Potentials (3)
  - WR 327 § – Technical Writing (3)

##### Business and Economics
- AREC/AEC 211 – Management in Agriculture (4)
- AREC/AEC 221 – Marketing in Agriculture (3)
- AREC/AEC 250 – Introduction to Environmental Economics & Policy (3)
- ECON 201 – Introduction to Microeconomics (4)

##### Business Electives
- *(Choose a minimum of 4 credits from the following courses)*
  - AREC/AEC 311 – Microecon: Tools Consumer Choice/Prod. Efficiency (4)
  - AREC/AEC 372 – Agricultural Cooperatives (3)
  - AREC/AEC 388 – Agricultural Law (4)
  - AREC/AEC 442 – Agricultural Business Management (4)
  - AREC/AEC 444 – Commodity Futures and Options Markets (4)
  - AREC/AEC 460 – Capital Investment Analysis using AgTools (3)
  - BA 463 – Family Business Management (4)

#### Experiential Learning Track *(optional)*
- 10 or more credits of a structured internship *(CROP 410)* can be substituted for 6 of the 7-8 General Elective credits and the four Business Electives credits. This will allow you to use an entire term for internship work.
Research Track (optional) – suggested elective classes have an § - select courses most relevant to your intended graduate school program

Total Units (need 180) ___________ Upper Div. Units (need 60) ________

Grade Requirement: Students pursuing an option in Agronomy, under the Crop & Soil Science Major, are required to receive a grade of C or better in all CROP, CSS, ENT, HORT, PBG, and SOIL courses required within their major and option.