

Fall 2018

Undergraduate Curriculum

In addition to all University and College requirements, students wishing to pursue a degree in Soil Science must adhere to the requirements listed below.

*Courses cannot double count within the major (unless specifically noted otherwise), but courses counted toward the major requirements may also be used to satisfy a university requirement or a college requirement.

*An undergraduate major in Soil Science, especially including the Environmental Soil Science track will meet many graduate school requirements, but not all. If interested in graduate school meet with an advisor in Soil Science to discuss a 4-year plan that will position you for this trajectory.

MATHEMATICS AND STATISTICS (6-8 cr.)
MATH 112 (q) or MATH 114 (q) or MATH 171 (q)
STAT 371 (r) or STAT 571 (r)*
*STAT 371 recommended
CHEMISTRY (5-9 cr.)
CHEM 103 (P) and CHEM 104 (P) or CHEM 109 (r, P)
BIOLOGY
One of the following sets:
BOTONY 130* (B) and ZOOLOGY 101 (B) and 102 (B) (recommended set)
BIOLOGY/BOTANY/ZOOLOGY 151 (B) and 152 (b, B)
BIOCORE 381 (B) and 382 (b, B) and 383 (B) and 384 (b, B)
*BOTANY 130 is required by the Turf and Grounds Track.
SOIL SCIENCE CORE (16 cr.)
SOIL SCI 301 (P) – (General Soil Science)
SOIL SCI 325 (P) – (Soils and Landscapes)
1 course from SOIL SCI 321 (P) or 621 (P) or 326 (P) or 626 (P) – (Soil Chemistry and Fertility)
1 course from SOIL SCI 322 (P) or 622 (P) – (Soil Physics)
1 course from SOIL SCI 323 (B) or 425 (B) or 523 (B) – (Soil Biology)
<u>SPECIALIZATION</u>
Students must complete 1 of 3 specializations – Environmental Soil Science, Soil and Food Systems, or Turf and
Grounds – see details on pages that follow.
CAPSTONE (3-4 cr.)
SOIL SCI 499* or ENVIR ST 575 (P) or F & W ECOL 652 (r, B)
*SOIL SCI 499 Capstone required for Turf and Grounds Track. Consult advisor to request permission to
substitute another course for the Capstone requirement. Course must meet CALS Capstone
Characteristics described in the Undergraduate Catalog and be approved by advisor and 116 Ag Hall.

SPECIALIZATION 1: ENVIRONMENTAL SOIL SCIENCE

MATHEMATICS (5 cr.)
MATH 211 (r) or MATH 221 (r) or MATH 217
PHYSICS (4 cr.)
PHYSICS 103 (r, P) (recommended) or PHYSICS 104 (P) or PHYSICS 207 (r, P) or PHYSICS 208 (P)
ADDITIONAL CHEMISTRY (4-8 cr.)
One of the following sets:
CHEM 341 (P) and CHEM 342 (P)
CHEM 343 (P) and 344 (P) and 345 (P)
CHEM 311 (P) and CHEM 327 (P) or CHEM 329 (P, h)
THE PHYSICAL ENVIRONMENT (6-8 cr.)
ATM OCN 100 (P) or GEOSCI 106 (P) or ATM OCN/SOIL SCI 132 (P) or ATM OCN 101 (P) or GEOG 120 or
EVIR ST/GEOG 127 (P) or GEOSCI 202 (P) or SOIL SCI 321 (P) or 326 (P)
GEOG/GEOSCI 320 (P) or GEOG 321 (P) or ATMOCN 323 (P) or GEOG 325 (P) or SOILSCI 324 (P) or 524 (P)
or 621 (P) or 622 (P) or 626 (P) or AGRON/ATMOCN/SOILSCI 532 (P) or F&WECOL 565 (P) or GEOG 578 (P)
THE LIVING ENVIRONMENT (9-14 cr.)
AGRON 100 or AGROECOL 101 or AGRON 300 or AGRON 304 or GEOG 309 or ZOO 315 or HORT 345 or
HORT 370 or AGROECOL 400 or SOIL SCI 370 or 425 (B) or 523 (B)
BOTANY/F&W ECOL/ZOO 460 (r, B)* or F&W ECOL 550 (B) and F&W ECOL 551 (lab) or GENETICS 466
(B) or BOTANY 500 or SOIL SCI 523 (B) or GENETICS 545 or BOTANY 563 (B) or SOIL SCI 626 (B) or 631 (B)
One of the sets:
MICROBIO 101 (B) and 102 (B) (5 cr.)
MICROBIO 303 (B) and 304 (B) (5 cr.)
BOTANY 330 (b, B) or 332 (B) (7 cr.)
ENVIRONMENTAL POLICY, MANAGEMENT, AND ANALYSIS (9-12 cr.)
SOIL SCI/ENVIR ST 101 or ENVIR ST 112 (S) or ENVIR ST 113 (H) or ENVIR ST 126 (B) or ENVIR ST/GEOG 127
(P) or AAE/F&W ECOL 652 (r, B) or SOIL SCI/ENVIR ST 575 or GEOG 526 or ZOO 535 (B)
ECON 101 (r, S) or ECON 111 (r, S) or AAE 215 or AAE 244 or AAE 319 or ENVIRST/M&ENVTOX/PLPATH
368 (S)
ENVIR ST 371 (P) or ENVIR ST 372 (P) or ENVIR ST/LAND ARC/SOIL SCI 695 (P)

SPECIALIZATION 2: SOIL AND FOOD SYSTEMS

THE PHYSICAL ENVIRONMENT (8-10 cr.)
ATM OCN 100 (P) or 101 (P) or SOIL SCI 132 (P) or GEOG 120 (P) or 127 (P), GEOSCI 100 (P) or 106 (P) or
SOILSCI 321 (P) or 324 (P) or 326 (P) or 451 (P) or 524 (P)
GEOG/GEOSCI 320 (P) or GEOG 321 (P) or ATM OCN 323 (P) or GEOG 325 or SOIL SCI 523 (P) or ZOO 535
or F&W ECOL/ ZOO 565 or GEOG 578 or GEOG 579 or SOIL SCI 451 (P) or 621 (P) or 622 (P) or 626 (P)
ENVIR ST 371 or ENVIR ST 372 or ENVIR ST/LAND ARC/SOIL SCI 695
ECONOMICS AND FOOD MANAGEMENT (6-8 cr.)
ACCT IS 100 or 211 or 300 (r) or 301 or 329 or AAE 215 (S) or 320 or 322 (S) or 323 (S) or 419 or 421 (S) or
474 (S) or MHR 305 (S) or 610 or 611 or 612
ECON 101 (r, S) or 111 (r, S) or ACCT IS 100 or 211 or 300 (r) or 301 or 329 or AAE 320 or 322 (S) or 323 (S
or 419 or 421 (S) or 474 (S) or SOIL SCI 425 (B) or 523 (B) or MHR 305 (S) or 610 or 611 or 612
SPECIALIZED SCIENCES (14-18 cr.)
**Some courses may fulfill GEN ED requirements
AGRON 100 (B) or HORT 120 (B)
AGRON 300 (B) or 302 (B) or HORT 345
AGRON/HORT/SOIL SCI 326 (P)
PL PATH 300 (B) or ENTOM 351 (B) or PL PATH 368
AAE 215 or 244 or 319 or 350
SPECIALIZATION 3: TURF AND GROUNDS
THE PHYSICAL ENVIRONMENT (3 cr.)
ATM OCN 100 (P) or 101 (P) or SOIL SCI 132 (P) or GEOG 120 (P) or 127 (P) or GEOSCI 100 (P) or 106 (P)
CORE TURF AND GROUNDS SCIENCE – COMPLETE ALL (20 cr.)
ACCT IS 300
BOTANY 130 (B) (counts toward Soil Science Major Biology requirements, above)
HORT 261
MHR 305 (S)
PL PATH 300 (B)
HORT/SOIL SCI 332
SPECIALIZED SCIENCES – COMPLETE 7 CREDITS
BOTANY/F&W 402 (b) or HORT 263 (B) or BSE 201 or 243 (P) or ENTOM 351 (B) or HORT 120 (B) or 262 or
461 or BSE 218