I. COURSE CHANGES

DEPARTMENT OF BIOSYSTEMS ENGINEERING AND SOIL SCIENCES

Biosystems Engineering Technology (BSET)

DROP

BSET 514 CAD Applications to Biosystems Engineering Technology (3)
BSET 534 Production Monitoring and Automation (3)
BSET 574 Environmental Instrumentation and Monitoring (3)

Rationale: For BSE514 and 534, we just failed to drop these graduate versions of undergraduate courses that were dropped several years ago. For 574, we are dropping this and adding an ESS 574 version (see below). Impact on other units: None. Financial impact: None. Projected enrollment: NA.

Impact on enrollment in other HCA Courses: none; courses have not been taught for some time.

Biosystems Engineering (BSE)

REVISE CREDIT HOURS AND CONTACT HOURS DISTRIBUTION

BSE 551 - Electronic Systems (3)
Contact Hour Distribution: 2 hours and 1 lab. Design content – 1 hour.

Formerly: BSE 551 - Electronic Systems (4)
Contact Hour Distribution: 3 hours and 1 lab. Design content – 1 hour.

Rationale: Because we are now teaching the prerequisite, the undergraduate course on which this is based requires less time to teach the background material. Impact on other units: None.

Financial impact: Lowers teaching time and reduces credit hours in the department by about 2 per year. Most of the students are in the 400-level version of the course which will also have its credit hours reduced. Projected enrollment: NA. Impact on enrollment in other HCA Courses: NA

Construction Science and Agricultural Systems (CSAS)

DROP

CSAS 432 Agricultural and Construction Equipment (3)
CSAS 435 Construction Finance / Accounting and Law (3)
CSAS 452 Small Internal Combustion Engines (3)
CSAS 462 Agricultural Chemical Application Technology (3)

Rationale: These courses were moved to CSM in the UG Catalog two years ago, and the current ones were added to BSET at that time, but we never cleaned up these CSAS graduate listings. Impact on other units: None. Financial impact: None. Projected enrollment: NA. Impact on enrollment in other HCA Courses: none

Environmental and Soil Sciences (ESS)

ADD

ESS 574 Environmental Instrumentation and Monitoring (3)
Equipment and techniques commonly used to measure all aspects of hydrologic cycle: precipitation, runoff, streamflow, subsurface water movement. Sampling of all flows for contaminants. Design of monitoring systems. Analysis of data.
Credit Restriction: Students cannot receive credit for both ESS 474 and ESS 574.
Recommended Background: Hydrology.
Registration Restriction(s): Minimum student level – graduate.

Rationale: BSET574 is being dropped as a BSET class and added as an ESS class. We were told that other programs would be more likely to use this as a Technical Elective under the ESS prefix than BSET.
Impact on other units: None.
Financial impact: hopefully increases student numbers
Projected enrollment: 10
Impact on enrollment in other HCA Courses: none; should not change HCA students taking it

REVISE REGISTRATION RESTRICTION

ESS 561 Nexus of Food, Energy, and Water (3)
Registration Restriction(s): Minimum student level – junior
Formerly: Registration Restriction(s): Minimum student level – graduate
Rationale: The material is rigorous, but should be accessible to interested juniors of seniors
Impact on other units: None. Financial impact: hopefully increases student numbers
Projected enrollment: 15
Impact on enrollment in other HCA Courses: none; should not change HCA students taking it

II. Program CHANGES

DEPARTMENT OF ANIMAL SCIENCE

ADD MINOR

Animal Science

In the 2023-2024 Graduate Catalog, add heading and requirements for the Animal Science minor.

Campus Code
Knoxville Campus

Admissions Standards/Procedures
Graduate students who wish to increase their knowledge of animal science or integrate this interdisciplinary science with other fields of study may choose the Animal Science minor.

Academic Standards
The student must be in good academic standing with the Graduate School.

Credit Hours Required
6 graduate credit hours.

Required Courses
6 graduate credit hours in ANSC courses 400-level or above but excluding ANSC 500, ANSC 502, ANSC 511, ANSC 525, ANSC 571, ANSC 600, ANSC 621, and ANSC 696.
Note: only those 400-level courses listed in the Graduate Catalog may be selected.

Non-Course Requirements
The student's committee must include a member of the faculty at the rank of Assistant Professor or above from the department who will be responsible for designating Animal Science courses required for the minor. Adjunct faculty are not eligible to fulfill this role.

Admission to Candidacy
When application is made for admission to candidacy, the minor and the courses required for the minor must be indicated.

Rationale: Graduate students in other graduate programs (e.g., Plant Science, Agriculture Leadership Education and Communication, Entomology and Plant Pathology, Biosystems Engineering and Soil Sciences and Agriculture Resources Economics and others) may benefit by increasing their knowledge of animal science and by integrating this interdisciplinary science with their primary field of study. Impact on other units: Provides additional course options for graduate students in Herbert College of Agriculture. Financial impact: None. All required courses already exist and will continue to be taught as part of the normal course load of existing faculty.
DEPARTMENT OF BIOSYSTEMS ENGINEERING AND SOIL SCIENCE

REVISE ACADEMIC STANDARDS / Thesis Option / Required Courses for Biosystems Engineering Major; MS

BSE 519 and two other graduate courses in biosystems engineering technology (BSET), biosystems engineering (BSE), or closely related programs (9 credit hours)

Formerly:
BSE 519 and two other graduate courses in biosystems engineering technology (BSET) and biosystems engineering (BSE) (9 credit hours)

Rationale: until rebuild faculty offering graduate courses, need to make this broader. Impact on other units: None. Financial impact: None. Projected enrollment: NA. Impact on enrollment in other HCA Courses: none

REVISE ACADEMIC STANDARDS / Project Option / Required Courses for Biosystems Engineering Major; MS

ESS 503 (3 times each for 1 credit hour), BSE 519 and two other graduate courses in biosystems engineering technology (BSET), biosystems engineering (BSE), or closely related programs (12 credit hours)

Formerly:
ESS 503 (3 times each for 1 credit hour), BSE 519 and two other graduate courses in biosystems engineering technology (BSET) and biosystems engineering (BSE) (12 credit hours)

Rationale: until rebuild faculty offering graduate courses, need to make this broader. Impact on other units: None. Financial impact: None. Projected enrollment: NA. Impact on enrollment in other HCA Courses: none

REVISE ADMISSIONS STANDARDS / PROCEDURES for Biosystems Engineering Major; PhD

Under the current text, add the following:

A PhD candidate progressing directly from a BS degree may be eligible for a Concurrent MS. Please see the BESS Graduate Student Handbook (https://bess.tennessee.edu/graduate-student-handbook/) for details.

Rationale: provide link for Concurrent MS option. Impact on other units: None. Financial impact: None. Projected enrollment: NA. Impact on enrollment in other HCA Courses: none

REVISE ACADEMIC STANDARDS / REQUIRED COURSES for Biosystems Engineering Major; PhD

BSE 519, BSE 619 and four other graduate courses in Biosystems Engineering (BSE) or closely related programs (18 credit hours)

Formerly:
BSE 519, BSE 619 and four other courses in Biosystems Engineering (BSE) (18 credit hours)

Rationale: until rebuild faculty offering graduate courses, need to make this broader. Also designating that the courses must be graduate courses. Impact on other units: None. Financial impact: None. Projected enrollment: NA. Impact on enrollment in other HCA Courses: none

REVISE ADMISSION STANDARDS / PROCEDURES for Plant, Soil, and Environmental Sciences Major, Environmental and Soil Sciences Concentration, PhD

Under the current text, add the following:

A PhD candidate progressing directly from a BS degree may be eligible for a Concurrent MS. Please see the BESS Graduate Student Handbook (https://bess.tennessee.edu/graduate-student-handbook/) for details.