APPROVED BY SENATE
02/10/2020

Date Submitted: 01/13/20 11:54 am

Viewing: **10KL5163BSAG : Agricultural & Biological Engineering, BSAG**

Last approved: 07/25/19 1:51 pm

Last edit: 01/22/20 11:17 am

Changes proposed by: Brooke Newell

Catalog Pages Using this Program	Agricultural & Biological Engineering, BS and Agricultural & Biological Engineering, BSAG

In Workflow

1. **U Program Review**
2. **1741 Committee Chair**
3. **1741 Head**
4. **KL Committee Chair**
5. **KL Dean**
6. **University Librarian**
7. **Provost**
8. **Senate EPC**
9. Senate
10. U Senate Conf
11. Board of Trustees
12. IBHE
13. DMI

Approval Path

1. 01/13/20 1:18 pm
   Deb Forgacs (dforgacs):
   Approved for U Program Review
2. 01/16/20 10:31 am
   Kent Rausch (krausch):
   Approved for 1741 Committee Chair
3. 01/17/20 1:35 pm
   Ronaldo Maghirang (ronaldom):
   Approved for 1741 Head
4. 01/17/20 1:57 pm
   Anthony Yannarell (acyann):
   Approved for KL Committee Chair

5. 01/21/20 11:36 am
   Anna Ball (aball): Approved for KL Dean
6. 01/21/20 12:20 pm
   John Wilkin (jpwilkin): Approved for University Librarian
7. 01/22/20 10:53 am
   Kathy Martensen (kmartens): Approved for Provost

History

1. Jul 15, 2019 by Deb Forgacs (dforgacs)
2. Jul 24, 2019 by Brooke Newell (bsnewell)
3. Jul 25, 2019 by Deb Forgacs (dforgacs)

Proposal Type

Proposal Type:
Major (ex. Special Education)

This proposal is for a:
Revision

Proposal Title:

if this proposal is one piece of a multi-element change please include the other impacted programs here. *example: A BS revision with multiple concentration revisions*

Remove courses that were deactivated; revised language ~~admin update of name & program codes in the total hours.Typo fix.~~

EP Control Number	**EP.20.93_original**
Official Program Name	Agricultural & Biological Engineering, BSAG
Effective Catalog Term	Fall 2020
Sponsor College	Agr, Consumer, & Env Sciences
Sponsor Department	Agricultural & Biological Engr
Sponsor Name	
Sponsor Email	
College Contact	College Contact Email

Program Description and Justification

Justification for proposal change:

Updated for Academic Catalog 2020-21 ~~Typo fix.~~

Corresponding Degree

Is this program interdisciplinary?

No

Academic Level	Undergraduate
Will you admit to the concentration directly?	
Is a concentration required for graduation?	
CIP Code	140301 - Agricultural Engineering.

Is This a Teacher Certification Program?

No

Will specialized accreditation be sought for this program?

No

Admission Requirements

Desired
Admissions Term

Provide a brief narrative description of the admission requirements for this program. Where relevant, include information about licensure requirements, student background checks, GRE and TOEFL scores, and admission requirements for transfer students.

Describe how critical academic functions such as admissions and student advising are managed.

Enrollment

Describe how this revision will impact enrollment and degrees awarded.

Estimated Annual Number of Degrees Awarded

Year One Estimate	5th Year Estimate (or when fully implemented)

What is the matriculation term for this program?
Fall

Delivery Method

Is this program available on campus and online? **No**

This program is available:
On Campus

Budget

Are there budgetary No

implications for this revision?

Will the program or revision require staffing (faculty, advisors, etc.) beyond what is currently available?

No

Additional Budget Information

Attach File(s)

Resource Implications

Facilities

Will the program require new or additional facilities or significant improvements to already existing facilities?

No

Technology

Will the program need additional technology beyond what is currently available for the unit?

No

Non-Technical Resources

Will the program require additional supplies, services or equipment (non-technical)?

No

Resources

Faculty Resources

Please address the impact on faculty resources including any changes in numbers of faculty, class size, teaching loads, student-faculty ratios, etc. Describe how the unit will support student advising, including job placement and/or admission to advanced studies.

Library Resources

Describe your proposal's impact on the University Library's resources, collections, and services. If necessary please consult with the appropriate disciplinary specialist within the University Library.

Instructional Resources

Will there be any reduction in other course offerings, programs or concentrations by your department as a result of this new program/proposed change?

No

Does this new program/proposed change result in the replacement of another program?

No

Does the program include other courses/subjects impacted by the creation/revision of this program?

No

Financial Resources

How does the unit intend to financially support this proposal?

Will the unit need to seek campus or other external resources?

No

Attach letters of support

Will an existing tuition rate be used or continue to be used for this program?

Yes

Program Regulation and Assessment

Briefly describe the plan to assess and improve student learning, including the program's learning objectives; when, how, and where these learning objectives will be assessed; what metrics will be used to signify student's achievement of the stated learning objectives; and the process to ensure assessment results are used to improve student learning. (Describe how the program is aligned with or meets licensure, certification, and/or entitlement requirements, if applicable).

Is the career/profession for graduates of this program regulated by the State of Illinois?

No

Program of Study

"Baccalaureate degree requires at least 120 semester credit hours or 180 quarter credit hours and at least 40 semester credit hours (60 quarter credit hours) in upper division courses" (source: https://www.ibhe.org/assets/files/PrivateAdminRules2017.pdf). For proposals for new bachelor's degrees, if this minimum is not explicitly met by specifically-required 300- and/or 400-level courses, please provide information on how the upper-division hours requirement will be satisfied.

All proposals must attach the new or revised version of the Academic Catalog program of study entry. Contact your college office if you have questions.

Revised programs	Attach a side-by-side comparison with the existing program AND, if the revision references or adds "chose-from" lists of courses students can select from to fulfill requirements, a listing of these courses, including the course rubric, number, title, and number of credit hours.

Catalog Page Text

Catalog Page Text: Description of program for the catalog page. This is not official content, it is used to help build the catalog pages for the program. Can be edited in the catalog by the college or department.

Statement for Programs of Study Catalog

Agricultural & Biological Engineering, BSAG Requirements in addition to completion of Agricultural & Biological Engineering, B.S.

Course List

Code	Title	Hours
Communication		3
CMN 101	Public Speaking	
Biological Sciences Coursework; choose 4 hours from: 1		4
ANSC 100	Intro to Animal Sciences	
ANSC 221	Cells, Metabolism and Genetics	
ANSC 350	Cellular Metabolism in Animals	
ANSC 363	Behavior of Domestic Animals	
ANSC 400	Dairy Herd Management	
ANSC 401	Beef Production	
ANSC 402	Sheep Production	
ANSC 403	Pork Production	
ANSC 404	Poultry Science	
ANSC 406	Zoo Animal Conservation Sci	
ANSC 450	Comparative Immunobiology	
ATMS 201	General Physical Meteorology	
ATMS 307	Climate Processes	
CHEM 232	Elementary Organic Chemistry I	
& CHEM 233	and Elementary Organic Chem Lab I	2
CHEM 312	Inorganic Chemistry	
CHEM 332	Elementary Organic Chem II	
CHEM 360	Chemistry of the Environment	
CHEM 460	Green Chemistry	
CPSC 112	Introduction to Crop Sciences	
CPSC 261	Biotechnology in Agriculture	
CPSC 265	Genetic Engineering Lab	

Code	Title	Hours
CPSC 270	Applied Entomology	
CPSC 352	Plant Genetics	
CPSC 414	Forage Crops & Pasture Ecology	
CPSC 415	Bioenergy Crops	
CPSC 418	Crop Growth and Management	
CPSC 431	Plants and Global Change	
CPSC 437	Principles of Agroecology	
CPSC 473	Mgmt of Field Crop Insects	
FSHN 101	The Science of Food and How it Relates to You	
FSHN 414	Food Chemistry	
FSHN 416	Food Chemistry Laboratory	
FSHN 461	Food Processing I	
FSHN 471	Food & Industrial Microbiology	
GEOL 107	Physical Geology	
GEOL 380	Environmental Geology	
HORT 100	Introduction to Horticulture	
HORT 341	Greenhouse Mgmt and Production	
HORT 344	Planting for Biodiversity and Aesthetics	
HORT 360	Vegetable Crop Production	
HORT 361	Small Fruit Production	
HORT 362	Tree Fruit Production	
HORT 363	Postharvest Handling Hort Crop	
HORT 421	Horticultural Physiology	
HORT 435	Urban Food Production	
IB 103	Introduction to Plant Biology	
IB 150	Organismal & Evolutionary Biol	
& IB 151	and Organismal & Evol Biol Lab	
IB 203	Ecology	
IB 329	Animal Behavior	
IB 335	Plant Systematics	
IB 411	Bioinspiration	
IB 420	Plant Physiology	
IB 439	Biogeography	
IB 444	Insect Ecology	
IB 452	Ecosystem Ecology	
IB 482	Insect Pest Management	
IB 485	Environ Toxicology & Health	
IB 486	Pesticide Toxicology	
MCB 100	Introductory Microbiology	
& MCB 101	and Intro Microbiology Laboratory	
MCB 150	Molec & Cellular Basis of Life	
& MCB 151	and Molec & Cellular Laboratory 2	
MCB 244	Human Anatomy & Physiology I	
& MCB 245	and Human Anat & Physiol Lab I	

Code	Title	Hours
MCB 250	Molecular Genetics	
& MCB 251	and Exp Techniqs in Molecular Biol	
MCB 252	Cells, Tissues & Development	
& MCB 253	and Exp Techniqs in Cellular Biol	
MCB 300	Microbiology	
& MCB 301	and Experimental Microbiology	
MCB 314	Introduction to Neurobiology	
MCB 316	Genetics and Disease	
MCB 450	Introductory Biochemistry	
NRES 201	Introductory Soils	
NRES 219	Principles of Ecosystem Mgmt	
NRES 348	Fish and Wildlife Ecology	
NRES 351	Introduction to Environmental Chemistry	
NRES 419	Env and Plant Ecosystems	
NRES 420	Restoration Ecology	
NRES 429	Aquatic Ecosystem Conservation	
NRES 439	Env and Sustainable Dev	
NRES 471	Pedology	
NRES 475	Environmental Microbiology	
NRES 487	Soil Chemistry	
NRES 488	Soil Fertility and Fertilizers	
PLPA 204	Introductory Plant Pathology	
~~PLPA 401~~	~~Course PLPA 401 Not Found~~	
~~PLPA 402~~	~~Course PLPA 402 Not Found~~	
~~PLPA 404~~	~~Course PLPA 404 Not Found~~	
PLPA 405	Plant Disease Diagnosis & Mgmt	
~~PLPA 406~~	~~Course PLPA 406 Not Found~~	
PLPA 407	Diseases of Field Crops	
Agricultural Sciences Coursework 3		15
Free Electives 4		
Total hours required to receive an Agricultural and Biological Engineering, BS and an Agricultural and Biological Engineering, BSAG		158

1 In addition to the Biological and Natural Sciences Elective hours required for Agricultural and Biological Engineering (6 hours), a further 4 hours of biological sciences must be completed to make up a **total of 10 hours.**

2*CHEM 232 and MCB 150 are required for the BIO concentration.*

3Fifteen hours of agricultural sciences with courses from at least two subject areas other than Agricultural and Biological Engineering and Technical Systems Management, and approval of advisers are required.

4 Sufficient free electives selected to total minimum curriculum requirement of 158 hours. All requirements of the combined curriculum must be completed to satisfy the requirements for both degrees.

EP Documentation

Attach Rollback/Approval Notices

DMI Documentation

Attach Final Approval Notices

Banner/Codebook Name

BS AG:Agr Engr & Agr Sc -UIUC

Program Code: 10KL5163BSAG

Minor Code	Conc Code	Degree Code	BSAG Major Code
5163			

Senate Approval Date

Senate Conference Approval Date

BOT Approval Date

IBHE Approval Date

Effective Date:

Attached Document

Justification for this request

Program Reviewer Comments

Kathy Martensen (kmartens) (01/13/20 11:54 am): Rollback: Email exchange.

Key: 72

Proposal	Degree	Footnote 1
EP.20.91	BS in Civil Engineering	External transfer students take ENG 300 instead
EP.20.92	BS in Computer Engineering	External transfer students take ENG 300 instead
EP.20.93	BSAG in Agricultural and Biological Engineering	In addition to the Biological and Natural Sciences Elective hours required for Agricultural and Biological Engineering (6 hours), a further 4 hours of biological sciences must be completed to make up a total of 10 hours.
EP.20.94	BS in Agricultural and Biological Engineering	External transfer students take ENG 300 instead
EP.20.95	BS in Agricultural and Biological Engineering: Agricultural Engineering	The extra hour of credit for this course may be used to help meet free elective requirements
EP.20.96	BS in Agricultural and Biological Engineering: Biological Engineering	May be taken for 4 credit hours; the extra hour may be used to help meet free elective requirements
EP.20.97	BS in Computer Science	External transfer students take ENG 300 instead
EP.20.98	BS in Electrical Engineering	External transfer students take ENG 300 instead
EP.20.99	BS in Engineering Mechanics	External transfer students take ENG 300 instead
EP.20.100	BS in Engineering Physics	External transfer students take ENG 300 instead
EP.20.101	BS in Systems Engineering & Design	External transfer students take ENG 300 instead
EP.20.102	BS in Nuclear, Plasma and Radiological Engineering	External transfer students take ENG 300 instead
EP.20.103	BS in Mechanical Engineering	External transfer students take ENG 300 instead
EP.20.104	BS in Materials Science & Engineering	External transfer students take ENG 300 instead
EP.20.105	BS in Industrial Engineering	External transfer students take ENG 300 instead