### College of Agricultural Sciences and Natural Resources
#### Curriculum Committee
#### Summary of Actions
#### September 4, 2015

<table>
<thead>
<tr>
<th>Unit Title and Number</th>
<th>Type of Action Requested</th>
<th>Approved CASNR</th>
<th>Approved CASNR Faculty</th>
<th>Approved UCC</th>
<th>Approved Graduate Council</th>
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<tr>
<td>AGRI 115 - Biotechnology: Food, Health and Environment</td>
<td>Deletion of Crosslisting ACE 4) AGRI 115. Biotechnology: Food, Health and Environment (LIFE 115) (3 cr) Lec 2, rec 1. Application of biotechnology to genetically engineer, identify, select or propagate microbes, plants or animals. Scientists who use biotechnology to solve problems with the environment, with our food system, or with human health.</td>
<td>9/4/15</td>
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<td>AGRI 271 - An Introduction to Computer Applications in Agriculture</td>
<td>Deletion of Course [ES] AGRI 271. An Introduction to Computer Applications in Agriculture (3 cr I, II) Lec 2, lab 4. Each student will complete an individual computer project selected and designed in cooperation with the instructor and/or major departmental adviser or counselor. Computing and its application to agriculture. Fundamentals of DOS, word processing, spreadsheets, database management, computer graphics, networks, computer communications, and elements of selecting appropriate hardware and software. Emphasis on practical, agriculturally-oriented applications.</td>
<td>9/4/15</td>
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<td>AGRI 496 - Independent Study in Agricultural Sciences</td>
<td>Addition of Graduate Level AGRI 496/896. Independent Study in Agricultural Sciences (1-5 cr, max 5) Ind. Prereq: Advanced approval of the plan of work and permission. Individual or group projects in activities such as research, literature review, extension of course work, or preparation of teaching materials.</td>
<td>9/4/15</td>
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<td>AGRO 992 - General Seminar</td>
<td>Change of Prerequisite and Description AGRO 992. General Seminar (HORT 992, NRES 992) (1 cr, max 5) Lec. Prereq: None Expected of all Agronomy and Horticulture graduate students. Presentation of thesis/dissertation or non-thesis topics in agronomy, horticulture or related subjects. Agronomy and Horticulture students should enroll this course twice.</td>
<td>9/4/15</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Prerequisites</td>
<td>Contact Information</td>
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<td>ASCI 862V</td>
<td>Genetic Prediction</td>
<td>ASCI 862U -- Linear Models in Animal Breeding</td>
<td>Contact Andi Halberg at 402-472-6440 or <a href="mailto:ahalberg2@unl.edu">ahalberg2@unl.edu</a>. Principles for using best linear unbiased prediction (BLUP) in genetic prediction. Material includes data integrity diagnosis, contemporary grouping strategies, adjusting for known non-genetic effects, the AWK Programming Language, UNIX/Linux scripting, and use of modern computational tools to perform genetic evaluations. Emphasis on real-world datasets designed to develop applied analytical skills in animal breeding.</td>
<td>9/4/15</td>
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<td>ASCI 862W</td>
<td>Applied Variance Component Estimation in Livestock Genetics (STAT 862W)</td>
<td>ASCI 862V. This is a 5-week course taught by Speidel and Enns (Colorado State University). Principles in the estimation of (co)variance components and genetic parameters required to solve mixed models typical in livestock genetics. Focus on applied knowledge of approaches used to estimate the G and R sub-matrices of the mixed model equations. Demonstrate models commonly used in parameter estimation. Introduce scientific literature concerning implementation, and attributes of the solutions, of variance component estimation strategies.</td>
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<td>ASCI 863U</td>
<td>Marker-Assisted and Gene-Assisted Selection</td>
<td>ASCI 863U. This is a 5-week course taught by Enns (Colorado State University). Methods for incorporating genetic marker information into selection decisions in livestock. Consider statistical methodologies necessary to analyze large data available from new DNA technologies related to livestock genomes. Material includes recombination, single-gene tests, molecular breeding values, suggested producer guidelines for use of the technologies, and incorporation of genomic information into genetic prediction procedures.</td>
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<td>ASCI 863V</td>
<td>Introduction to Marker Association Analysis and QTL Detection</td>
<td>ASCI 863U. This is a 5-week course taught by Dekkers (Iowa State University). Methodologies for using genetic markers to identify Quantitative Trait Loci (QTL) and for estimating marker–trait associations in livestock populations. Material includes the basics of linkage and linkage disequilibrium, alternate designs or population structures for QTL mapping, and statistical methods for QTL detection and genome-wide association analyses. Introduce properties and requirements of alternate designs and analysis strategies.</td>
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| BIOC 205   | Scientific Analysis and Technical Writing                                     | New Course  
BIOC 205. Scientific Analysis and Technical Writing (2 cr I, II) Lec 2. Prereq: Biochemistry major or minor. BIOC 101, LIFE 120, and CHEM 110 suggested to be taken prior to this course or concurrent enrollment  
Data analysis and presentation, hypothesis-driven research execution and various types of scientific writing with detailed examination of high impact biochemistry research literature. | 9/4/15 |
| BSEN 317   | Introduction to Biomedical Engineering                                        | Change of Description and Removal of Lab Hours  
BSEN 317. Introduction to Biomedical Engineering (3 cr I) Lec 3. Prereq: PHYS 211; MATH 221 or parallel and one semester of biology.  
Research areas and applications related to biomedical engineering including bioelectricity, biosensors, biomechanics, cardiovascular mechanics, tissue engineering, biotechnology, and medical imaging. Identifying engineering methods used to develop biomedical technologies and communicating technical knowledge to a wide variety of audiences. | 9/4/15 |
| ENVR 189H  | University Honors Seminar                                                     | ACE 8 Recertification  
ACE 8[IS] ENVR 189H. University Honors Seminar (3 cr I) Lec 3. Prereq: Good standing in the University Honors Program or by invitation. A University Honors Seminar 189H course is required of all students in the University Honors Program. ENVR 189H is 'Letter Grade Only'.  
Topics vary. | 9/4/15 |
| ENVR 249   | Individual and Cultural Perspectives on the Environment                       | ACE 9 Recertification  
The influence of culture on individual perspectives related to the concept of sustainability and the relationship that human’s have with the environment. The role of ethics, religion, and historical setting on the individual and cultural perspectives related to environmental challenges at the local to global scales. | 9/4/15 |
| ENVR 499A  | Environmental Studies Senior Thesis I                                        | ACE 10 Recertification  
(ACE 10) ENVR 499A. Environmental Studies Senior Thesis I (1 cr I) Lec 1. Prereq: Junior standing; environmental studies major or minor; prior arrangement with program director and emphasis adviser or academic adviser. First course of a two-semester sequence of courses consisting of ENVR 499A and 499B. ENVR 499A is 'Letter Grade only'.  
Preparation for writing the senior thesis | 9/4/15 |
| MSYM 232   | Power and Machinery Principles                                                | Change to Clarify Physics Requirement  
MSYM 232. Power and Machinery Principles (3 cr I) Lec 2, lab 3. Prereq: MSYM 109 or PHYS 141 or PHYS 151 or PHYS 211  
Operational characteristics of IC engines, field, materials-handling, and processing machines and their components. Includes analyses, estimations, and objective comparisons of performance; principles for adjustment and calibration of metering systems; and cost-effective sizing of machines. Exercises include using ASABE Standards and available reports of machine performance (tractor test reports, etc.). | 9/4/15 |
| PGAM 401 - PGA Golf Management 2.0 Level 3-B | Deletion of Prereq. PGAM 401. PGA Golf Management 2.0 Level 3-B (3 cr) Lec 2, rec 1. Prereq: PGAM 312. Continuation of PGA 2.0 Level 3 curriculum modules. Curriculum modules covered will include Advanced Teaching and Club Fitting, Player Development Programs and Teaching as a Business, Food and Beverage, and Career Enhancement/Final Experience. Students will attend a 2.5 day PGA sponsored seminar on Advanced Teaching and Club Fitting. Standardized tests on the modules covered will be administered during the semester. | 9/4/15 |

New degree programs, options, Specializations, Certificates, Minors (undergraduate and graduate)

None

Curriculum Committee Approval Only: Substitution/waivers, student appeals, bulletin copy (format, consistency, accuracy, editorial), operating procedures for the curriculum committee

None

Informational Items: Tabled items, calendar of meetings and deadlines, changes in membership, program changes in degree program that do not include the college core, ACE assessment reports

FYI - FDST 131/131L - The Science of Food/Lab removed from the list of CASNR approved LIFE Sciences.


ACE 1 and ACE 2 course information will be sent to CASNR Units for review.  

1 If you have specific questions or concerns; please visit with your CASNR Curriculum Committee Representative to discuss the specific agenda item.

Any unit or group of at least five (5) faculty may challenge a decision of the Committee that requires faculty action by filing a written objection. The unit administrator will coordinate the written response to the Dean by September 22, 2015. Unless the concerns can be resolved with clarification, revision and/or withdrawal and re-submission, the matter in question will be brought before the full faculty for discussion, debate and vote. If no written objections are properly filed, the action will be considered approved by the College faculty and either implemented or forwarded to the appropriate University Committee (University Curriculum Committee, Graduate Council and/or Academic Planning Committee) with the faculty recommendation for approval.

2 The CASNR Curriculum Committee serves as the Parent Unit for the following degree programs:

No approval needed