EXECUTIVE SUMMARY:

The College Curriculum Revitalization Task Force was appointed in May 1991 to address the Integration of New Study and Student Learning Outcomes into the College's curriculum (Project Scholar, August 1990). One of the recommendations was the creation of the College's first introductory college-wide course that would be a core requirement for all CASNR students. The College introductory core course (AGRI/NRES 103) was approved by the CASNR Curriculum Committee (CC) August 1993 and University Curriculum Committee September 1993 (reference documents: http://casnr.unl.edu/college-introductory-core-course). The first offering of the course was Fall 1994. The course focused on agricultural and natural resource topics from the perspectives of natural resource base, energy budget, the environment, and economic and societal aspects. Course-based assessments were conducted annually to provide a systematic collection and analysis of the course with the goal of improving student learning through modifications to the pedagogical approach, student learning outcomes, and learning assessment tools. In addition, the following course-based assessment activities were also administered: Survey of Students by CASNR CC, 2001; Extensive review by CASNR CC sub-committee (Chaired by Dr. Dennis Brink), 2002 (http://casnr.unl.edu/college-introductory-core-course); Course assessment by Dr. Gary Bailey on CIEQ evaluation (Fall 2004-Spring 2010), correlation analysis with post course assessment (Fall 2010, Spring 2011), and student views (Spring 2011). The findings from Dr. Bailey's assessment and the CASNR CC sub-committee were as follows:

- students learn new concepts and academic skills in the course;
- student attitudes and opinions change over the course of the semester;
- students largely accept several scientifically well-supported, but culturally/politically contested scientific findings (evolutionary science, climate change, etc.); and
- students think that the course is of value to their education, but do not agree that there is a relationship between AGRI/NRES 103 and the other courses in their degree program.

A comprehensive review (David and Associates, October 2012) on defining attributes for a CASNR degree identified the AGRI/NRES 103 course as an area of concern – "While the intent of the course has merit, the course content and its delivery should be reviewed objectively. If this is indeed being positioned as an 'introduction' to the College, that introduction is clearly not as possible or effective as one would hope – especially among the population of non-rural students that CASNR is attracting. Recommendation: If this course is intended to provide a foundation for one's educational experience in CASNR and link to upper-division degree program curricula, it is absolutely critical that its content and focus on soft-skills development be seen as relevant and helpful to all students who take it."

In anticipation of needing to identify replacement instructors for Drs. Jim Brandle and Steve Danielson starting Fall 2014 as well as the need to redefine/redesign the course based upon assessment findings, Dean Waller shared with the CASNR CC at their Planning and Transition meeting in May 2013 that Drs. Tom Field and Lindsay Hastings would be piloting a new model of instruction for the introductory core course Fall 2013 (http://casnr.unl.edu/college-introductory-core-course). The new model would place greater emphasis on developing students' analytical, logical and problem-solving skills, and their ability to synthesize and integrate information across disciplinary lines. The shift in focus for the pilot course aligned with IANR's priorities – integration of food, fuel, water, landscape and people systems; ongoing course-based assessment; the need to improve our graduates' soft-skills (feedback from employers); and the changing demographics of our students and their programs of study. Student feedback from the pilot project was very positive; however, the scalability of the instructional model to 450 students was determined to not be possible at the time. During the Spring Semester 2014, Dr. Jenny Dauer (Science Literacy Cluster) developed a research-based conceptual model for the College introductory core course that was scalable and built upon the existing AGRI/NRES 103 course and the Fall 2013 pilot course. The conceptual model shifted from a content-driven model of instruction to a decision-making framework (Eggert, S., Bögeholz, S., 2009; Eggert, S., Ostermeyer, F., Hasselhorn, M., Bögeholz, S., 2013; Grace, M., 2009; Gresch, H., Hasselhorn, M., Bögeholz, S., 2013; Halverson, K.L., Siegel, M.A., Freyermuth, S.K., 2009; and Ratcliffe, M., 1997) that would provide students with an opportunity to engage in science-informed decision-making about real-world challenges related to food, energy, water and landscape systems. The course also provides a multidisciplinary experience related to complex issues that are content neutral and contribute broadly to society's scientific literacy and are

applicable foundational skills that apply to all degree programs. Other revisions to the introductory core course included redesign of the library component and the recitation model, and incorporation of learning assistants to facilitate active-learning (Based upon Dr. Bailey's evaluation). Dean Waller discussed the conceptual framework and offering cycle for the introductory core course at the Annual Faculty Meeting in August 2014 (http://casnr.unl.edu/college-introductory-core-course) and Dr. Husmann followed up with an email correspondence to unit administrator in September 2014 (http://casnr.unl.edu/college-introductory-core-course). An update was also included in the Faculty Update from Dean Waller, February 14 and the Spring 2015 Academic Notes (http://casnr.unl.edu/college-introductory-core-course).

Dr. Dauer and other members of the instructional team invested considerable effort in developing a model that is relevant to all degree programs, serves as a foundation for developing soft skills (creative and problem-solving, oral and written communication, decision-making, teamwork and collaboration, etc.), and addresses the 'great challenges' that our society face.   The formative and summative evaluation techniques are designed to capture student insight and feedback, learning assistant analysis of course processes and delivery methods, instructor understanding and analysis on the lessons, and assessment instruments used in the course. At the CASNR CC Planning and Transition meeting in May 2015, Dr. Dauer presented an overview of the student learning outcomes, assessment findings from the Fall 2014 course offering, plans for the revised Fall 2015 course offering (based upon Fall 2014 assessment findings), the transition from AGRI/NRES 103 to SCIL 101, and the connection between her discipline-based education research goals and the course (http://casnr.unl.edu/college-introductory-core-course). The appropriateness of the conceptual framework and student learning outcomes was validated by the Fall 2014 assessment data and body of literature on student's decision-making abilities and cognition (Eggert, S., Bögeholz, S., 2009; Eggert, S., Ostermeyer, F., Hasselhorn, M., Bögeholz, S., 2013; Grace, M., 2009; Gresch, H., Hasselhorn, M., Bögeholz, S., 2013; Halverson, K.L., Siegel, M.A., Freyermuth, S.K., 2009; and Ratcliffe, M., 1997).

Dr. Jenny Dauer submitted a new course proposal (SCIL 101: Science and Decision-Making for a Complex World) to the CASNR Curriculum in January 2016 (http://casnr.unl.edu/college-introductory-core-course). Based upon discussions at the CASNR Curriculum Committee meeting in May 2015 and feedback from faculty and advisors regarding challenges with keeping the existing course prefix and number (AGRI/NRES 103), Dr. Dauer submitted a new course proposal rather than a course revision to AGRI/NRES 103. This course was approved by the CASNR CC and is included in the Summary of Actions for faculty consideration (http://casnr.unl.edu/college-introductory-core-course). SCIL 101 fulfills all the expectations of the College's introductory core course while acknowledging increased enrollment in the College. If SCIL 101 is approved as the replacement course for the introductory college core, AGRI/NRES 103 will be terminated and SCIL 101 will be offered as the core course starting Fall 2016.

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