Agronomic Systems Analysis
Agron591

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Course Overview:  Catalog description for Agron591 states: "Analysis of cropping systems from a problem-solving perspective. Case studies will be used to develop the students' ability to solve agronomic problems." During the semester we will use two decision cases. The first one, Decision Case: The Perkins Farm, Shifting Gears, was developed by Denise Taack and Minnesota Extension Service. You will be asked to help Jerry and Terry Perkins determine if they should replace their 8-row planter with a new 12-row planter. The second case is a project that I have been working on with the assistance of G. Wiedenhoeft, M. Smith, R. Borges, S. Heuchelin, D. Muenchrath, D. Todye, S. White, D. Dobill, and K. Klaphake. The final product for the activities using this decision case will be a whole farm management plan for a 750-acre farming operation in NE Iowa. We will spend three months developing the plan, creating a section biweekly.

Prerequisites for Agron 591:  Agron 531, Agron 532, and Agron 533

Student Outcomes:  At the end of the semester a student will have:

- developed a holistic perspective of an agroecosystem, recognizing that an agroecosystem is influenced by biological and social factors
- further developed skills in acquiring information that is oral and written and assessing the relevance of the information
- critically evaluated the agronomic and financial aspects of a farming system in order to identify components that can be changed and to understand the consequences of the changes in a farming system
- learned to use the Iowa Crop Management Database for organizing financial information that will be used to make financial recommendations
- further developed skills in critical thinking and problem solving in agronomic situations in order to develop short, medium, and long term recommendations with justification
- further developed written and oral communication skills in order to persuade and inform an audience, using technical appropriate terminology

Class Format:  The format for Agron591 is different compared to the format of your previous classes. I will not be presenting lots of new information in the form of lessons. My goal is to help you further develop your critical thinking and problem solving skills, using the knowledge you already possess. In general, you will be turning in a written document every other week. Following the submission, we will spend a week discussing your conclusions, unresolved questions, or consequences of your recommendations. Additionally, I will require that you spend some time in reflection. I will not be giving any exams during the semester.
Evaluation Procedures:
Grading:
- Submitted Homework ~50%
- Discussion Comments ~20%
- Reflective Questions ~5%
- Professionalism ~5%
- Management Plan ~20%
Total 100%

Expectations of Writing: As a professional, writing, that is, organization, grammar, and spelling, is just as critical as clear, logical arguments. I expect professional writing. I have listed some areas of writing that students have had difficulty with in the past. The quality of the writing will be graded for each homework, representing 40% of the total grade. Please use 12 pt, Times font, with 1.5 line spacing, line numbers, and page numbers. Sources of information should be referenced, using the Agronomy Society of America format. Focus on Chapter 1, Chapter 2, Chapter 5, and Chapter 7 of the Online Publications Handbook and Style Manual. Plagiarism will not be tolerated.

Submission of Homework: Please submit your documents as email attachments to me on or before the due date, making sure your name is on each submission. Discussions about the material just submitted will immediately follow; therefore, it is critical that you remain on schedule. I do understand that you are working and that you have personal responsibilities. Please let me know as soon as you have a conflict with deadline.

Submission of Discussion Comments: Discussions will be via the discussion board on the Student Notebook System. I will post a discussion question beginning the morning after your written document is due. I may post additional discussion questions after reading your documents. In order to have a fruitful discussion, it is important that you post your comments in a timely matter. Therefore, you will need to check the board frequently. Discussions will be graded. Many discussion questions ask you to critique the recommendations of your classmates. Critiquing should not be confused with summarizing. Please do not summarize the author's major points. Rather, address the relevance of the problem and the logic of the recommendation to resolve the problem.

Reflective Questions: You will be asked to reflect on different activities throughout the semester. I will use the information to better plan for activities in subsequent semesters. Additionally, it allows me to get a better understanding of your skills, career experiences, and current job responsibilities.

Professionalism: Professionalism includes your active and timely participation in discussions and submission of assignments, courteousness during discussion, and willingness to cooperate.