RHODES
STATE COLLEGE

AGR 1501
Prescription Mapping in Agriculture
Syllabus
Term: Spring

Rhodes State College   3 Credit Hours
Division of Health Sciences and Public Service   3 Contact Hours
Agriculture Technology Program
Instructor: Jim Uphaus   Adam Wehrman
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Mission Statement: Rhodes State College changes lives, builds futures and improves
                              Communities through life-long learning.

Program Mission or Purpose Statement:
The Agriculture Technology program is designed to provide students with practical education in an increasing demand field of agriculture business, agronomy, prescription mapping, and/or robotics and artificial intelligence.

Program Learning Outcomes
- Communicate effectively in both written and oral form with coworkers, customers, and others in and about agriculture technology.
- Research, design, and use best practices to create environmentally sustainable, productive, and economically viable solutions to agricultural problems and challenges.
- Demonstrate initiative, leadership, and planning in building professional relationships in the agriculture community, and workplace.

- Locate and use information and numerical data in solving problems related to agriculture.

OVERVIEW

Catalog Description: Covers the use of precision farming software that is embedded in precision agriculture equipment and the data inputs and outputs that are needed in each to create the desired prescription/application map. Use includes but is not limited to initial setup, management of data and production list creation, data cards, processing field data, creating reports and creating prescription/application maps. Once maps are created, students will interpret the information contained in the maps to recommend an action plan for the mapped field.

Prerequisites/Co-requisites:
AGR 1000, Introduction to Agriculture

Meeting Dates and Times:: To be determined per semester

Course Delivery: In person

TEXT AND MATERIALS/SUPPLIES:
AgLeader SMS Advanced Reference Manual available as pdf in course Canvas page

Supplemental pdf and information as needed

Required Software
AgLeader SMS Advanced software – student license included in course
Microsoft Excel
Google Earth Pro

STUDENT LEARNING OUTCOMES:
- Configure software in precision agriculture equipment.
- Transfer data between different precision agriculture equipment.
- Input data into software systems to create prescription maps.
- Create a prescription map from given information.
- Interpret the results of prescription maps.
- Create an action plan for the mapped field given appropriate data.

SCHEDULE OF INSTRUCTIONAL ACTIVITIES:
Traditional lecture with included laboratory exercises

DATE	CLASS SCHEDULE	DUE DATES
Week 1	Introduction and Background- External data sources, External data and Management Tree-Soil Survey Data, Importing/Batch Importing	
Week 2	Project Management, Generating and importing field boundaries, generating soil sample designs, field display and collecting soil samples	
Week 3	Management Zones logic and data utilization, Building management zones	
Week 4	Soil Sampling Grid and Zone Theories and Interpretation. Soil Sampling: Creating, Importing lab data, adjusting interpolation, setting defaults	
Week 5	Exporting out to controllers (Device setup Utility) and as generic file types-Shape, KML/KMZ, CSV/TXT. Using SMS Mobile for in-field sample collection AgFiniti for in-field reference maps, reading in files from GIS Hardware and importing data (Shape files, Images, Lidar data, and setting those datasets as backgrounds)	
Week 6	Create prescriptions using the basic prescription editor	
Week 7	Equation Based Analysis Range Wizard	
Week 8	Equation Based Analysis Range Wizard, Exam 1	
Week 9	Equation Based Analysis IF/Then Statements	
Week 10	Equation Based Analysis Multiple data layers	
Week 11	Advanced data transfer, Transfer Utilities Exporting out to controllers (Device Setup Utility) and as generic file types-Shape, KML/KMZ, CSV/TXT Visualization on Device	
Week 12	Converting paper recommendations to digital prescriptions	
Week 13	Reporting, organizing information management. Printing reports, developing summaries	
Week 14	Other Prescription Mapping Platforms	
Week 15	Other Prescription Mapping Platforms,	
Week 16	Final exam	

LABORATORIES, CLINICALS, FIELD WORK/ SPECIAL REQUIREMENTS:

TESTING AND EVALUATION:

Assignments
Demonstrations
Problems
Lab Reports
Quizzes
Exams

Grading Scale

A	93-100
A-	90-92.9
B+	87-89.9
B	83-86.9
B-	80-82.9
C+	77-79.9
C	73-76.9
C-	70-72.9
D+	67-69.9
D	60-66.9
E	0-59

Course Scoring:

Quizzes	20
Homework/Assignments	40
Exams	40
Total	100

INSTRUCTOR EXPECTATIONS
Regular attendance is needed to gain an understanding of the course's content and to satisfactorily demonstrate required competencies. Lack of attendance will negatively impact the earned grade and if flagrant, could result in a grade of "E" which may negatively impact a student's financial aid eligibility. (See Federal Student Aid Handbook for further information.)

Weekly attendance is expected prior communication of missing class is appreciated.

Makeup Policy:
All course work shall be managed so that progress toward completion is continuous. Continuous is defined as progress made weekly.

PARTICIPATION

Attendance:

Regular attendance is important to understand course content and perform required competencies. Absences, late arrivals, and early departures will negatively impact your grade and may result in a grade of "E" which may harm your Financial Aid eligibility. Please ensure that you understand the attendance policy for each course and follow the instructor's guidelines for communicating about unavoidable absences and making up course work, if permissible.

E-mail:

You are responsible for checking your College email frequently for college and course-related communications. RSC recommends checking email daily in recognition that certain communications may be time-sensitive. Please use proper etiquette when submitting emails to College personnel: a positive tone, correct spelling and grammar, and verify the intended recipient's title and address before sending the email. These details will expedite communication.

Incomplete:

The grade of incomplete ("I") in a course is a temporary grade, reflecting that while your work in the course is qualitatively satisfactory, but for some extenuating circumstances, a small fraction cannot be completed by the scheduled end date. Before an "I" can be awarded, there must be a plan in place, verified by signatures or emails by both you and your instructor, outlining exactly what work must be accomplished and a schedule for doing so. The student must complete and submit the coursework no later than the sixth Friday following the start of the semester or term subsequent to the one in which the "I" was received. Failure to adhere to this plan will result in calculating the course grade with 0s for all remaining assignments. Until the "I" is resolved, the credit hours will not be counted or considered for any purpose. Your financial aid and academic standing may be negatively impacted. For more information see the College Catalog "Grading System" and "Registration."

In short, taking an incomplete should be avoided. However, if it becomes impossible for you to complete a course, please contact your instructor and Financial Aid advisor immediately.

Withdrawal:

You are responsible to officially drop/withdrawal from a course when you decide to no longer attend class. Without an official drop/withdrawal from the Office of Advising and Counseling, the institution has the right to identify a date of drop/withdraw. This may result in receiving an "E" in all classes and being required to pay all assessed fees and tuition, even though you have actually left the College. Any/all of these may have a negative impact upon future Financial Aid eligibility. Please contact your Academic and Financial Aid Advisors for assistance.

STUDENT CODE OF CONDUCT

Academic Integrity:

Attempting to deceive, defraud, or use dishonesty for one's own gain will not be tolerated. Dishonesty in any form may result in a grade of "zero" for the activity, whether in providing or utilizing materials inappropriately. Additionally, individual programs may impose greater sanctions. This includes – but is not limited to – plagiarism, attempting to pass off someone else's work as one's own; submitting substantially the same work, using materials created for one course in another without the instructor's knowledge and permission; securing/providing answers to a test apart from the instructor's directions, etc. Students are encouraged to review the Student Code of Student Conduct on the college website (http://www.rhodesstate.edu/currentstudents) for additional information.

Student Support:

Resources	Location	Phone	Email/Website
Accommodative Services	TL 132	419-995-8476	TestCenter@rhodesstate.edu
Advising	PS 218	419-995-8400	Advising@rhodesstate.edu
Campus Security	TL 140	419-995-8499 (Non-emergency)	mathews.m@rhodesstate.edu
Career Development	JJC 179J	419-995-8352	CareerDevelopment@rhodesstate.edu
Computer Help Desk		419-995-8069	HelpDesk@rhodesstate.edu
Counseling Services	Email, Text, or Call	Call: 855-695-2817 Text: "Hello" to 61295	StudentLifeServices.com (password: rhodes)
Financial Aid	PS 148	419-995-8802	Finaid@rhodesstate.edu
Internships & Experiential Learning	JJC 179H	419-995-8053	Internships@RhodesState.edu
Library	CK150	419-995-8401	https://osu.libguides.com/?group_id=1788
OSU Police	GA 134	567-242-7400 (Non-emergency)	https://lima.osu.edu/faculty-and-staff/administration/security/
Testing Center	TL132	419-995-8476	TestCenter@rhodesstate.edu
Tutoring	SCI 240	419-995-8039	academicsuccesscenter@rhodesstate.edu

ADA Reasonable Accommodations:

Accommodative Services supports all students with documented disabilities who are enrolled for credit. Students needing accommodations at Rhodes State should contact Accommodative Services in person in the Technical Education Laboratory building, Room 132 (TL 132), via email at AccommodativeService@RhodesState.edu, or via telephone at 419-995-8476. Students must meet with Accommodative Services, receive an Accommodations Letter, and present the letter to the instructor **before accommodations take effect. Accommodations are not retroactive.**

Comprehensive Early Alert Program (CEAP):
Rhodes State employs a Comprehensive Early Alert Program (CEAP) to identify and provide just-in-time support for students who are having academic difficulties. It is a process by which your instructor will "alert" you and an advisor or success coach when you are absent, frequently late or leaving early, have missed assignments, or earned low test scores. CEAP enhances existing services, such as advising, coaching, and tutoring, which increase student success. Please contact your instructor, advisor, or success coach to learn about what assistance might be available.

CAMPUS COMMUNICATION

College Closures:

Please sign up for **Rhodes Alert** which can be found on the RSC website. Rhodes Alert was created to provide students with Emergency Notifications in the event of Weather Emergencies, Weather Closures, and Campus Security Threats. These notifications will be delivered via phone, email, and text message. The local TV and radio stations also post information about College closures. When referring to a media outlet, please remember to look specifically for RSC as other institutions may follow different protocols for weather cancellations.

Weather Delays and Cancellations:
In the event that weather forces a delay to the start of the academic day, the College will announce when classes will begin. Classes starting and ending prior to the announced start time are cancelled. If the class starts before the announced start time but still has more than 30 minutes of class remaining after the start time, that class will begin at the announced specific time and end at its normal time. This same 30-minute rule will be used in the event of an early closure of the College. The portion of the class which was scheduled prior to the announced closure time would be cancelled

Because travel to clinical/practicum experiences may begin at an early hour, program leadership may delay the start to enable the College to assess weather conditions and allow for the College's communication process to occur. Always, please exercise your best judgment in determining whether to attend classes or activities sanctioned by RSC. Remember that you are accountable for any material missed during an absence without an official delay or announced cancellation.

Emergency Procedures:
Students are responsible for following appropriate campus emergency procedures. Students

are encouraged to review the Building Emergency Action Plan on the college website:
(http://www.rhodesstate.edu/About%20Rhodes/College%20Offices%20and%20Departments/Security-Safety/Emergency%20Information.aspx)

<p style="color:red; text-align:center; font-weight:bold">Rhodes State College is a tobacco-free campus.
This includes all smoked, chewed, vaporized, and electronic forms.</p>