


Course Syllabus: AEB 3550
Agricultural Data Analysis (3 credits) – Fall 2024

Course Time and Location: Period 6, Monday, Wednesday, & Friday 12:50 pm – 1:40 pm, [Fine Arts Building C, Room 127](#)

Instructor and Contact Information:

Dr. Misti Sharp, Instructional Associate Professor	Email: mistisharp@ufl.edu
Office: 1189 McCarty Hall A	Phone: 352-294-7632
Student hours: Monday and Friday from 10:00 – 11:00 am and by appointment	
Requests for appointments: If you request an appointment with me (Book an appointment with me or using QR code to the right) it will be held via zoom by default. Zoom room link: https://ufl.zoom.us/j/3522947632 If you would prefer an in-person appointment outside of my office hours, please send me an email and we will get it scheduled! I am generally in the office on Mondays, Wednesdays, and Fridays.	

Course Description (from Catalog): This course provides an introduction into analysis of agricultural data and incorporates statistical and agricultural economic theory into the analysis of agricultural problems.

Prerequisites: It is the expectation that students have completed introductory Food and Resource Economics coursework including AEB 3103 (Principles of FRE) and AEB 3510 (Quantitative Methods in FRE). It is further expected that students have taken STA 2023 (Introduction to Statistics).

Communication: E-mail (either to my email address or via canvas messaging) is the best way to reach Dr. Sharp. Any issues that require action **MUST** be handled by email so that there is a written record of need. For a private meeting to discuss grades or personal matters, it is best to schedule a meeting with my bookings site (see QR code above). Appointments are not necessary during office hours. Groups of students are welcome.

Make sure to [enable emails for course announcements](#) and read this syllabus thoroughly! I post important announcements sparingly (no more than 1 per day and usually much less).

Undergraduate Advisor: Mr. Trey Gifford; 1170B McCarty Hall A; (352) 294-7640;
E-mail: agifford1@ufl.edu; [Schedule an appointment](#)

Undergraduate Coordinator: Dr. Misti Sharp; 1189 McCarty Hall A; (352)294-7632;
E-mail: mistisharp@ufl.edu; [Schedule an appointment](#)

FRE Technology Assistance: Dave Depatie; 1197 McCarty Hall A; (352) 394-7641;
E-mail: ddepatie@ufl.edu

Teaching Assistants: Meri Hambaryan; office hours and location TBD

Casen Simmons; Office Hours: during asynchronous class periods in FAC127; Email: csimmons2@ufl.edu

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Course summary: Unlike previous statistics courses you may have taken, this course is very much an APPLIED statistics course. You will be using real-world data relevant to agriculture, natural resources and the economy. For some, applied statistics is easier than theoretical statistics; for others, it is incredibly difficult and may take a great deal of time to develop the skills necessary for applied data analysis.

Most real-world problems that are solved using data are not written in a textbook format. Research questions do not always follow intuitive patterns. Nevertheless, as an economist, it is essential that you develop the skills to do applied data analysis while at the same time understanding the theoretical underpinnings of statistical techniques.

This class is a CORE class in the FRE undergraduate program. Mastery of the skills taught in this course is a pre-requisite for upper-level course work in FRE classes. Previous students have found this course to be challenging and time-intensive; however, many of them agree that the rigor introduced in this class is critical in building a strong analytical skillset needed for success in upper level course work such as price analysis, agricultural finance, econometrics, etc.

Expected Student Learning Outcomes: After the successful completion of AEB 3550, a typical student should be able to:

- Identify different types of data and appropriate statistical methods;
- Differentiate between descriptive and inferential statistics;
- Apply statistical techniques to a variety of economic data;
- Analyze a data set using tools provided in excel;
- Interpret statistical output to aid in economic decision making;
- Communicate the results of statistical analysis including writing professional reports;
- Succeed in the senior-level coursework in the Food and Resource Economics curriculum as students will have acquired the necessary statistical foundations and demonstrated competency in performing statistical analysis.

Course Topics: This course is broken into four main sections: basic statistics review, probability distributions, hypothesis testing and regression analysis. The first part of the course will largely be a review of descriptive statistics which are used to summarize data either graphically, numerically, or in tabular form. This is an essential first step in data analysis as it allows the researcher to become familiar with characteristics of the data that will be relevant for higher order inferential analysis. The second and third sections of the course apply inferential statistics to probability distributions. Inferential statistics involves generating, from a limited data set, information about statistical relationships and estimates about a population. The last part of the course takes inferential analysis a step further to look at associations between multiple variables which is a first step in discussing causal or correlative relationships. The course is cumulative in that a firm understanding of distributions and descriptive statistical techniques is a pre-requisite to inferential analysis.

Required Course Materials:

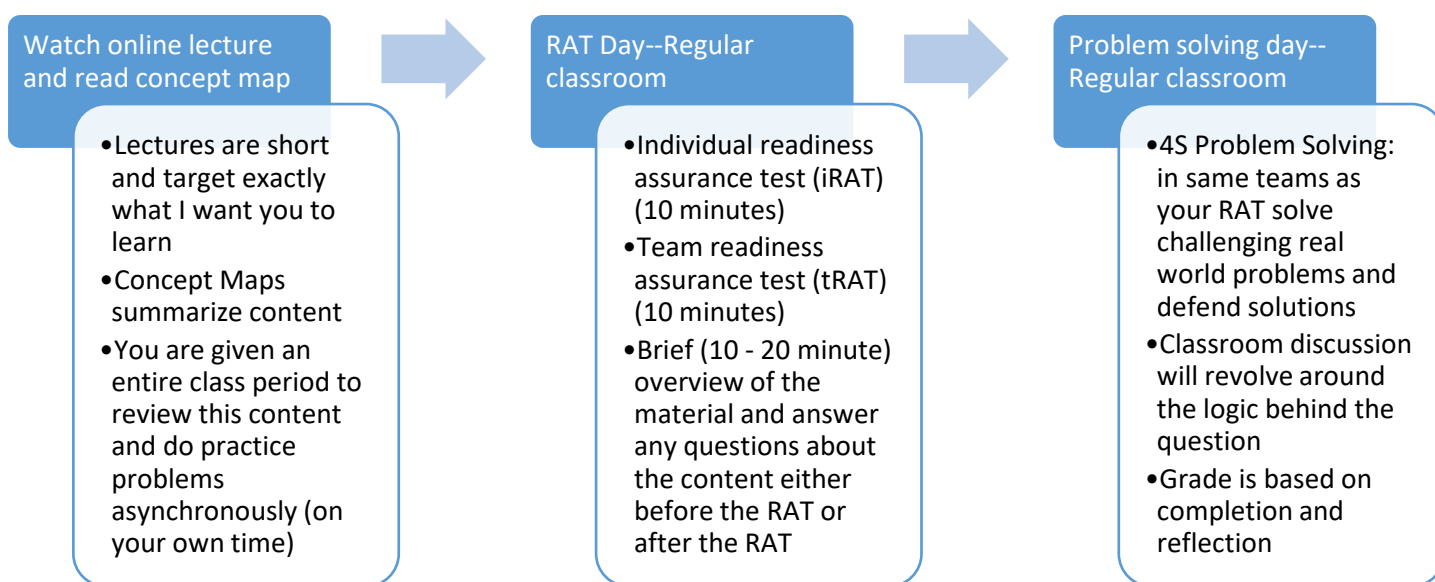
- **Required Text:** *Essentials of Modern Business Statistics with Microsoft Excel* by Anderson, Sweeney, Williams, Camm, Cochran, Fry and Ohlmann. Cengage Learning, copyright 2020. ISBN: 9780357131626. **UF All Access Version is \$30 and hard copy is \$60.**
- **E-learning:** There is an [E-Learning Canvas webpage](http://elearning.ufl.edu) for this course. E-learning can be accessed via <http://elearning.ufl.edu> using your Gatorlink username and password. If you are having difficulties

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accessing E-learning, please contact the UF Computing Help Desk by calling (352)-392-HELP or via email helpdesk@ufl.edu.

- **Other:** This course combines statistical concepts with practical application and as such, students are required to have a basic knowledge of rudimentary applications of both. If you feel like you do not have an adequate background in statistics or the use of excel, please use resources such as Kahn Academy (<https://www.khanacademy.org/math/statistics-probability>) or Lynda.com (available from <http://elearning.ufl.edu>) to supplement the classroom materials.

Class Structure: This is considered a “flipped classroom;” more specifically, this class will be taught using “Team Based Learning-TBL,” a highly effective teaching paradigm that uses carefully designed small groups to facilitate learning and exploration of important course concepts (see the following [Overview - Team-Based Learning Collaborative \(teambasedlearning.org\)](#)). This means that students are expected to learn the course materials using multiple modes including a significant amount of outside of the classroom effort. In this classroom for each module, the flow of each week will be as follows:



Course Assignments and Expectations:

Individual Readiness Assurance Test (IRAT) (Best 10 out of 12): Each module will have an individual readiness assurance test (iRAT). This iRAT will include 5 multiple choice questions and should take students between 5 - 10 minutes to complete. You must be on time as extra time will not be given to students who are tardy. Each IRAT will be weighted equally, although some RATs will contain more content and difficulty varies significantly from subject to subject. The tested material will build on itself although the iRATs will not be *explicitly* cumulative. If you miss an iRAT for an excused absence, you may make up the iRAT in office hours. It is in your best interest to do all iRATs as it affects your performance AND group dynamics.

Team Readiness Assurance Test (tRAT) (Best 10 of 12): These will be the same assessment as the tRAT but they will be completed/discussed as a group. You will be scored based on the group performance on the tRAT. If you do not show up for class, you will receive a zero on your tRAT for that day. If you have an excused absence, your iRAT score will count as your tRAT score.

4S Problem Solving Activity (Best 10 of 12): In addition to the TRAT there will be a 4S Problem Solving prompt to be completed as a group. This is meant to be an opportunity to apply what you have learned in the

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module to a real-world significant problem with each team coming to and defending a specific choice under simultaneous report. The grade you receive on this will be based on the timeliness of your responses in class (are you ready to defend your answers with the rest of the class) and on your discussion submissions.

Peer Review: Due to the emphasis on team-learning in this course, there will be regular peer reviews to discourage free-riding and improve inter-personal communication skills within teams. You will be graded based on participating in the peer reviews and fairly/accurately assessing your peers in those evaluations. The final peer assessment score will be based on how you contributed to the team's success.

Applications of Data Analysis (best 4 of 5): These application projects require the use of excel to apply statistical methods to a real-world data set. While it is important to learn how to use excel to apply statistical techniques, interpretation of the data and statistical output will be emphasized in these assignments. The final output of these application projects will be a written report which should be typed and thorough. Late submissions will be penalized 5 points per day late. All work completed in excel and written in your final report MUST be your own. These projects vary in difficulty, and you should plan to spend at least ten hours on each application project.

Exams (Best 2 of 3): Each exam (2 midterms and 1 final) will consist of 20 multiple choice questions and will be administered during the regular class period (50 minutes). You will be allowed a 1-page self-prepared sheet of formulas/notes, a calculator, and probability tables. Questions on the midterm will be very similar to those posed in RATs, problem solving, and application projects.

Composition of Final Score:

Course Assignments	Total Points	% of Total
IRATs	50 points (5 points each)	10%
TRATs	50 points (5 points each)	10%
4S Problem Solving	100 points (10 points each)	20%
Projects (best 4 of 5)	100 points (25 points each)	20%
Exams (best 2 of 3)	160 points (80 points each)	32%
Peer Review	40 points	8%
Total	500 points	100%

Grades and Grade Points: Grades will be assigned as follows

Grade	Percentage	Total Points	Grade Points
A	93% or more	≥ 465	4.00
A-	90.0 – 92.9%	450 – 464	3.67
B+	86.0 – 89.9%	430 – 449	3.33
B	83.0 – 85.9%	416 – 429	3.00
B-	80.0 – 82.9%	400 – 415	2.67
C+	76.0 – 79.9%	380 – 399	2.33
C	73.0 – 75.9%	365 – 379	2.00
C-	70.0 – 72.9%	350 – 364	1.67
D+	66.0 – 69.9%	330 – 349	1.33
D	63.0 – 65.9%	316 – 329	1.00
D-	60.0 – 62.9%	300 – 315	0.67
E	≤ 59.9%	≤ 299	0.00

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****Please note that grades are not ‘rounded’ or ‘adjusted’ at the end of the term. Haggling over grades at the end of the semester is NOT entertained. Of course, if there is an error in recording a grade, I will gladly give you the correct points. If you believe that your exam is incorrectly graded or that your grade is incorrectly posted, please contact me via e-mail as soon as possible. You have 7 days after a grade has been posted to voice your concern. After 7 days have passed, your posted grade will be assumed to be correct and accurate.****

Grades and Grade Points: For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Attendance and Make-Up Work: Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Course Evaluation

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty: As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>

Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/>

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

Health and Wellness

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services. Address: 3190 Radio Road. Services provided:

- Counseling services
- Groups and workshops
- Outreach and consultation
- Self-help library
- Wellness coaching

Student Success Initiative: <https://studentsuccess.ufl.edu/> Services provided:

- Advising
- Peer mentoring
- Coaching
- Peer tutoring

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).

Academic Resources

E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

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Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

On-Line Students Complaints: <https://pfs.tnt.aa.ufl.edu/state-authorization-status/#student-complaint>

Lauren’s Promise: I will listen and believe you if someone is threatening you.

Lauren McCluskey, a 21-year old honors student athlete, was murdered on October 22, 2018, by a man she briefly dated on the University of Utah Campus. We must all take actions to ensure this never happens again. Any form of sexual harassment or violence will not be excused or tolerated at the University of Florida.

If you are experiencing sexual assault, relationship violence, or stalking, you can take the following actions:

- If you are in immediate danger, call 911.
- Report it to me, and I will connect you to resources.
- Seek confidential sources of support and help:
 - [UFPD Office of Victim Services](#): 51 Museum Road, 352-392-5648
 - [Sexual Assault Recovery Services \(SARS\)](#): Infirmary Building, 352-392-1161
 - Alachua County Rape Crisis Center (confidential): 352-264-6760

Tentative Schedule: Please note that the fall semester is a tricky semester to plan for due to unexpected hurricane events. If there is a hurricane or other event that causes a class cancellation on an “asynchronous” day, we will not make any changes to the schedule. If there is a class cancellation on a “regular classroom” day, we will likely compress the RAT and PS into the next class period and/or a component of these assignments will be completed online instead of in the regular classroom. If multiple days are missed consecutively, we will push back the schedule reducing the number of classroom assessments (RAT and PS) to 11 instead of 12, skipping module 12. It is your responsibility to keep up with canvas announcements that indicate such a change.

Day	Date	Topic	Format	Assignments
Friday	8/23	Syllabus and Introductions	Regular classroom	Introduction quiz
Monday	8/26	Module 1 lecture	Asynchronous-eLearning	Module 1
Wednesday	8/28	Module 1 RAT	Regular classroom	RAT 1/PS 1
Friday	8/30	Module 2 lecture	Asynchronous-eLearning	Module 2
Monday	9/2	Labor day holiday		
Wednesday	9/4	Module 2 RAT	Regular classroom	RAT 2
Friday	9/6	Module 2 PS	Regular classroom	PS 2
Monday	9/9	Module 3 lecture	Asynchronous-eLearning	Module 3
Wednesday	9/11	Module 3 RAT	Regular classroom	RAT 3
Friday	9/13	Module 3 PS	Regular classroom	PS 3—Project 1
Monday	9/16	Module 4 lecture	Asynchronous-eLearning	Module 4

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Wednesday	9/18	Module 4 RAT	Regular classroom	RAT 4
Friday	9/20	Module 4 PS	Regular classroom	PS 4
Monday	9/23	Module 5 lecture	Asynchronous-eLearning	Module 5
Wednesday	9/25	Module 5 RAT	Regular classroom	RAT 5
Friday	9/27	Module 5 PS	Regular classroom	PS 5
Monday	9/31	Module 6 lecture	Asynchronous-eLearning	Module 6
Wednesday	10/2	Module 6 RAT	Regular classroom	RAT 6
Friday	10/4	Module 6 PS	Regular Classroom	PS 6—Project 2
Monday	10/7	Review	Regular classroom	Peer review
Wednesday	10/9	Midterm 1		
Friday	10/11	Module 7 lecture	Asynchronous-eLearning	Module 7
Monday	10/14	Module 7 RAT	Regular classroom	RAT 7
Wednesday	10/16	Module 7 PS	Regular classroom	PS 7
Friday	10/18	Homecoming		
Monday	10/21	Module 8 lecture	Asynchronous-eLearning	Module 8
Wednesday	10/23	Module 8 RAT	Regular classroom	RAT 8
Friday	10/25	Module 8 PS	Regular classroom	PS 8—Project 3
Monday	10/28	Module 9 lecture	Asynchronous-eLearning	Module 9
Wednesday	10/30	Module 9 RAT	Regular classroom	RAT 9
Friday	11/1	Module 9 PS	Regular classroom	PS 9
Monday	11/4	Module 10 lecture	Asynchronous-eLearning	Module 10
Wednesday	11/6	Module 10 RAT	Regular classroom	RAT 10
Friday	11/8	Module 10 PS	Regular classroom	PS10- Project 4
Monday	11/11	Veteran's day		
Wednesday	11/13	Module 11 lecture	Asynchronous-eLearning	Module 11
Friday	11/15	Module 11 RAT	Regular classroom	RAT 11
Monday	11/18	Module 11 PS	Regular classroom	PS 11
Wednesday	11/20	Module 12 lecture	Asynchronous-eLearning	Module 12
Friday	11/22	Module 12 RAT/PS	Regular classroom	RAT 12/PS 12
Monday	11/25	Thanksgiving holiday		
Wednesday	11/27	Thanksgiving holiday		
Friday	11/29	Thanksgiving holiday		
Monday	12/2	Review	Regular classroom	Project 5
Wednesday	12/4	Midterm 2	Regular classroom	Final peer review
Friday	12/13	Final exam	Regular classroom	7:30 am – 9:30 am

Final exams must take place on a time designated by the university. These dates and times and posted on one.uf and in the [schedule of courses](#). You may not have an exam time that differs from the one set by the university (please see [Examination Policies and Reading Days < University of Florida \(ufl.edu\)](#)). Final exams will take place in the regular classroom.

This schedule is entirely preliminary and is subject to change!! See note above schedule.