Course description and topics: The course will focus on formulation of statistical problems from client information, the analysis of complex data sets by computer software, and practical consulting experience. Experience will be gained through actual consultation with researchers who have a real problem with relevant data. Topics of this course will include
1) Special experimental designs (Split-Plot, Repeated Measures);
2) Linear and non-linear mixed-effects models;
3) Generalized linear and additive models;
4) Multiple comparisons;
5) Sample size determination;
6) Time series data analysis.

The course will use “SAS” and “R” as the main statistical computing packages. Students in the course are required working on statistical consulting projects and will receive data to use in the class from on campus sources or from clients while working paid or unpaid internships.

Course objectives: Upon completion of this course students will be able to
1) Communicate effectively with future clients and form statistical problems in different situations;
2) Work on statistical data analysis projects independently;
3) Prepare progress reports and final reports of research projects;
4) Present statistical results clearly to clients and in conferences.

Prerequisites:
STA 5167 or STA5327 or consent of the instructor.

Course Grading:

Grading will be based on reports and presentations prepared for the consulting projects (20% for attending the Data Science workshops, 30% for the progress report and presentation, 40% for the final report and presentation, and 10% for class attendance, periodic assigned oral reports, and discussion.)
University Policies

University Attendance Policy:

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Academic Honor Policy:

The Florida State University Academic Honor Policy outlines the University’s expectations for the integrity of students’ academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to... be honest and truthful and... [to] strive for personal and institutional integrity at Florida State University. (Florida State University Academic Honor Policy, found at http://fda.fsu.edu/Academics/Academic-Honor-Policy.)

Americans With Disabilities Act:

Students with disabilities needing academic accommodation should:
(1) register with and provide documentation to the Student Disability Resource Center; and
(2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.
For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center
874 Traditions Way
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
http://www.disabilitycenter.fsu.edu/
**STA 5939**  
*Introduction to Statistical Consulting*  
**FALL SEMESTER 2021**

**Tentative Syllabus**

<table>
<thead>
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<th>Topic</th>
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<tr>
<td>Multiple comparisons;</td>
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<td>Sample size determination;</td>
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<td>SAS and R</td>
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<tr>
<td>Projects discussion and presentations</td>
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Please be courteous to your classmates and instructor: 1) do not conduct private conversations during the class; 2) Cell-phones, ipad, laptops, and other electronic devices should be turned off during the class periods.