INSTRUCTOR: Dr. John Rasp

OFFICE: 526A Lynn Business Center

PHONE: 822-7444

Please don't hesitate to call. And please don't hesitate to leave a message, if your call is answered by a machine. If I'm meeting with someone in the office when the phone rings, for reasons of courtesy I generally will not interrupt that conversation to answer the phone.

EMAIL: jrasp@stetson.edu

I check email often during the week (not weekends). This is a good way to contact me.

WEBPAGE: http://www2.stetson.edu/~jrasp/

This website contains copies of the class schedule and syllabus, as well as copies of all assignments, various datasets for class use, and other resources. If you mislay your copy of the homework (or even, [heaven forbid!] miss a class and not get a copy of an assignment), you can get the missing material here. Type the complete URL (as given above) into your browser – links to my page from the Stetson site may not be active. This is a website, not Blackboard.

TEACHING SCHEDULE: I am in class at the following times.

<table>
<thead>
<tr>
<th>Course</th>
<th>Section</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 301</td>
<td>06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MWF 9:00 - 9:50</td>
<td>LBC 122</td>
</tr>
<tr>
<td>STAT 440</td>
<td>01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MWF 10:00 - 10:50</td>
<td>LBC 122</td>
</tr>
</tbody>
</table>

(I have a reduced teaching load this semester because I taught an extra class last semester.)

OFFICE HOURS: Mondays and Wednesdays 1:00 - 3:00

“Office hours” means that I am generally available to students during these time slots. (There may be minor exceptions, due to faculty meetings or unforeseen emergencies. I expect to give advance notice of these, if needed.) Appointments during office hours are not needed or accepted – these times are free to all comers. If I'm meeting with someone else, please feel free to join in the conversation. I normally hold official office hours in the lobby of the Lynn Business Center.

I am also more than willing to make appointments to meet with students outside of these regular office hours.

You are also more than welcome to simply drop by my office (526A in LBC) outside of office hours. I do request, as a courtesy to your fellow students, that you avoid drop-in visits immediately prior to my classes (listed above), as this time is needed for final review and preparation for class.

Tuesday afternoon and Thursday morning comprise my “research day.” I regret that I cannot generally be on campus or be available for appointments at those times.
INTEGRITY IN THE ACADEMY

“Business ethics” should not be an oxymoron. The recent financial and accounting scandals are but the latest examples of a false, and ultimately self-destructive, business ethic that values immediate monetary return above all else. The academy is in part to blame for the situation – for the academy has largely abandoned its role as a moral force in society.

Stetson University prides itself on being a values-driven institution. One way in which the university expresses this is through its Honor System. A central feature of the system is an Honor Pledge, a commitment to uphold high standards of integrity in academic work. Text of the Pledge is as follows:

As a member of Stetson University, I agree to uphold the highest standards of integrity in my academic work. I promise that I will neither give nor receive unauthorized aid of any kind on my tests, papers, and assignments. When using the ideas, thoughts, or words of another in my work, I will always provide clear acknowledgement of the individuals and sources on which I am relying. I will avoid using fraudulent, falsified, or fabricated evidence and/or material. I will refrain from resubmitting without authorization work for one class that was obtained from work previously submitted for academic credit in another class. I will not destroy, steal, or make inaccessible any academic resource material.

By my actions any my example, I will strive to promote the ideals of honesty, responsibility, trust, fairness, and respect that are at the heart of Stetson’s Honor System.

Expectation is that students will sign this Pledge as a demonstration of commitment to its values. A student reaffirms the Pledge regularly, by writing the word “Pledged,” followed by her/his signature, when submitting tests and assignments. Faculty likewise are expected to uphold and encourage high standards for academic integrity in their classes, and to facilitate a campus-wide ethic of academic honesty. A student Honor System Council is charged with responsibility for educating the campus community about the Honor System, and for ruling on cases of alleged academic dishonesty. Full details of the System are available online, at http://www.stetson.edu/other/honor-system/.

Both students and faculty have greater freedom and greater responsibility under an Honor System. Barring clear demonstrations to the contrary, I am willing to trust you not to cheat on exams. (I plan to administer them on a take-home basis.) I am willing to believe that any absences are justified. (I don’t need to see “doctor’s notes” and similar paperwork.) I am willing to trust you to behave in an honorable manner, and to encourage others to act honorably. I do ask that you take reasonable steps not to place undue temptations before others.

You are encouraged to work together on assignments in this class. However, all writeups are expected to be independent productions, in the student’s own words. Studying from old exams is permitted (and encouraged). However, sharing information about current exams and quizzes is not allowed, as this would give other students an unfair advantage. Of course, such egregious violations of academic integrity as plagiarizing a paper or looking at another student’s paper on an exam are clearly forbidden.

The Stetson Honor System requests, but does not require, that you report any known or suspected violations of academic integrity. This may be done to me, or to any member of the Honor System Council. (Their names are given on the website, mentioned above.) I will refer any Honor violations to the Honor System Council. I will normally follow any recommendations they make, regarding academic penalties.
WHY TAKE THIS COURSE??

One question you should ask of this course, or any course you take in the university, is: “What can I expect to get out of this class?” The answer should be more than “four credits, and fulfilling a graduation requirement.” The college experience needs to be more than simply jumping through hoops to get a credential.

So what can you expect to get out of a course in “Forecasting”? The Stetson University Bulletin states it rather prosaically:

This course focuses on statistical techniques useful in modeling and forecasting data, simple linear regression models, multiple regression, including model diagnostic procedures, and model selection and validation. Analysis of time series data, including Box-Jenkins techniques. Use of computer software packages in data analysis. Emphasis is on real-world applications. Prerequisite: STAT 301 or equivalent, a Calculus course, or Permission of Instructor.

That's boring prose. And, quite frankly, it's not really intended to give you an good idea about the course. (Its purpose is more to let professional educators know what's in the class. That way we can tell whether course content is sufficient for satisfying prerequisites, granting transfer credit, and the like.)

So what should you expect to get out of this course? My primary goal is that you have an appreciation for the usefulness of statistical tools. You should come out of this class saying good things, like “that's interesting stuff” and “I see how this gets used in real life.” You should be more quantitatively literate and computer literate. You should be better able to formulate decision problems in quantitative terms, know how to acquire the necessary data to answer the question, and know how to analyze those data. An important secondary goal is that you be better able to communicate the results of your analyses. The best technical skills in the world are of little use if you are unsuccessful in communicating your findings in a way others can understand.

The primary focus of the class will be a class of statistical procedures collectively known as “regression.” These techniques model a “dependent” variable as a function of one or more “independent” variables. This is most easily, and extensively, done using linear functions. However, we will also examine non-linear functions as well. Several other sorts of “forecasting” procedures will be included as time allows. These include techniques such as discrete choice modeling (for analyzing situations in which, for example, people are making choices among several options) and Box-Jenkins time series analysis (for handling situations in which there are a large number of naturally-ordered data values). Not all forecasting is done using formal statistical methods, however – and so we will give some consideration to various nonquantitative predictive techniques.

You will come out of this course with a lot of “tools in your toolkit” – we will cover a lot of different procedures. However, the focus is not on learning about dozens of statistical formulas and procedures. The goal is not to memorize an algorithm or to “plug numbers into a formula” to get an answer. Instead, our focus is on the reasoning behind, and interpretation of, quantitative tools. The focus is on concepts. The calculations we will do are NOT an end in themselves. Rather, they are part of an overall reasoning process that focuses on valid analysis and valid conclusions.

As for other expectations: You should NOT expect to do a lot of busy-work. You SHOULD expect to invest time into studies, and into homework that enables you to understand statistical procedures and applications. You should NOT say “I'll never use this stuff again.” You SHOULD be focused on real-world use of the material. Above all, you should NOT approach the course with a sense of worry or fear. You SHOULD approach the course with the expectation that you will learn things that are useful and interesting - and that you will have fun while doing so.
HOW WILL WE ACHIEVE COURSE OBJECTIVES?

GENERAL EXPECTATIONS: You are enrolled in the best undergraduate school of business in Florida. This means that you should come out of this course (and this university) having learned more, and being better prepared for the workplace, than your peers at other institutions. We both have a role to play in this.

You may expect me to be well-prepared for class. You may expect me to structure the class to facilitate your mastery of the material. You may expect me to be sensitive to your time needs. (I will not assign “busy work.” I will provide sufficient course structure so that you may plan appropriately.) You may expect me to be available outside of class time. You may expect me to provide you with adequate and timely feedback. Most of all, you may expect me to do what I can to make this course a successful learning experience for you.

Likewise, I may expect you to make reasonable effort at mastering the material. I may expect you to come to class prepared. I may expect you to invest the necessary time and effort into homework and studies. (Learning does not happen, after all, by my simply unscrewing the top of your head and pouring the knowledge in.)

TIME REQUIREMENTS: The standard expectation for a university-level class is that the student devote approximately two hours outside of class each week for every credit hour. This is a four-credit class; a semester lasts 15 weeks. This gives 120 out-of-class hours over the course of the semester. I will plan semester activities accordingly. Understand, however, that you are not on a time clock. Remember that the goal is getting an education, not putting in hours.

PREREQUISITES: The listed prerequisites for this course are STAT 301 (Business Statistics) or a comparable introductory course, and a calculus course. STAT 301 has in turn as prerequisite satisfaction of the Information Technology Proficiency requirement.

I do not expect students to recall all the details from these courses. I will assume some familiarity with foundational statistical concepts such as the standard deviation, confidence intervals, and hypothesis testing. I will assume some level of mathematical sophistication. (I’m willing to review what a mathematical “derivative” is, but you should have enough algebraic ability to be able to find basic derivatives.) I will assume you understand the basics of how spreadsheet programs operate.

TEXTS: No textbook is required for this course. You should plan to organize your class notes in such a way that they will serve as a reference work for you, both during and after this course.

SUPPLEMENTAL READING: The popular-press book The Signal and the Noise, by Nate Silver, is required reading for the course. You will want to obtain a copy (from the campus bookstore or another source). We will read the entire book.

METHODS OF INSTRUCTION: Classroom time will be primarily used for lecture on course material. However, I do incorporate many “active learning” techniques – you frequently will be asked in class to take time to work a short problem, or interpret a statistical finding, etc., as a step toward enhancing your understanding of the material. Some class periods will be “workshops” or “discussion groups” in which you will work with a small group of fellow-students on a learning activity.

However, as with most (all?) university classes, the greatest amount of learning will happen when you interact with the course material outside the classroom. Various assignments, detailed below, are structured to facilitate this learning.
EQUIPMENT: You will need a scientific calculator for this course. Any reasonably advanced model (that is, one that has at least some basic statistical functions) will do. Students with sophisticated graphing calculators should ideally have the manual for that calculator. (They all work differently.) If you don't have the manual, at some point in the course you will probably want to access the company website to obtain relevant portions of the manual. (They're generally available as Adobe Acrobat .PDF files.) After all, what's the point of having a sophisticated calculator if you don't know how to use its advanced functions? **PLEASE BRING YOUR CALCULATOR TO EVERY CLASS.**

I also recommend that you obtain a looseleaf notebook (NOT a spiral-bound) for the course. This course involves a lot of handouts and assignments. A looseleaf notebook will help you effectively organize this material for study and reference.

If you don’t already own a stapler, get one. You will want to staple multipage homework assignments for the course. Owning a stapler is more efficient than scurrying around trying to find one. You will get more longterm value out of a stapler than you will from many of the textbooks you buy for other courses.

ATTENDANCE/PARTICIPATION GRADE: Full participation in class for the day results in full participation points for that class day. “Full participation” means on-time arrival, not leaving early, active engagement in in-class activities, and behavior during lectures that appears attentive and is not distracting to others. The lowest four attendance grades will be dropped. The remaining attendance grades form a portion of the participation grade.

DAILY REVIEW: A few straightforward review questions and computational exercises will be assigned following each lecture. These problems are intended to provide you with timely review and reinforcement of material discussed each class period. They are to be completed prior to the following lecture. Late papers will be penalized. The lowest four daily review grades will be dropped. The remaining grades from collected daily homework will form a portion of the participation grade.

READING ASSIGNMENT: We will read Nate Silver’s book *The Signal and the Noise* in its entirety, at the rate of one chapter per week. Each week you will be asked to submit a brief reaction paper to that week’s reading. In these essays you are NOT simply summarizing the content of the chapter. Rather, you are expected to interact with the material in some way (e.g., raise a point of disagreement, point out a current application, relate the text to material covered in this or another class, etc.). Papers are due every Friday. (In situations where the class does not meet on Friday, then the due date is the following Monday.) Late papers are accepted at a penalty grade. The lowest grade will be dropped in computing your grade on the reading assignment.

COURSE PROJECT: Each student in the class will complete one semester-long project, involving use of one or more forecasting techniques to solve a research question of the student’s choosing. This should be a small-scale academic research effort, including a review of the existing research literature, valid experimental design and data collection, correct analysis of the data, and presentation of results in both oral and written forms. This is intended to be an individual effort; I am willing to consider group projects in special circumstances.

COLLABORATIVE WORK: We're here to learn. To that end, unless you are specifically told otherwise on an assignment, students are allowed and encouraged to work together on homework in this course. You will often learn more from working with others. However, a separate writeup is expected from each student, in his/her own words. (Do NOT submit work identical, or nearly identical, to that of another student.) By writing things up, in your own words, you demonstrate, and solidify, your own understanding of the material.

Submitting a writeup that is identical (or nearly identical) to another student’s is considered an Honor System violation and will be referred to the Honor System Council.
EXAMS: Exams are designed to assess student knowledge of course material. All exams are cumulative. Makeup exams are not generally given. Students missing an exam for any reason will be excused from that exam, with the final exam counting proportionately more toward the final grade. Exams are tentatively scheduled for the following days: (I reserve the right to make adjustments.)

February 23        April 6

Students will be given time, outside of class, to complete exams under standard testing conditions (fixed time limits, no consultation with others, etc.). Exams are open notes. You are on your honor to complete the exam under these conditions. Departure from norms for academic integrity will be referred to the Honor System Council. In case there is widespread abuse of these testing privileges, I retain the right to revert to a standard in-class examination format.

FINAL EXAMINATION: The course has a required cumulative final examination. You must take, and pass, the final examination to receive a passing grade in the course.

STUDYING FOR EXAMS: You should understand that the instructor does not believe in “studying for exams.” There are two reason for this. The first is about the goal. College should not be about doing well on exams. It should be about learning. (If you learn, you should do well on exams. But the converse is not necessarily the case.) The second reason is about the process. If you “cram” the night before a test, the material goes into short-term memory and is quickly forgotten. This is counter-productive (and downright stupid) - we're here to learn, not to forget. However, if you've kept up with the material throughout the term (and that's what the daily reviews are supposed to facilitate), you should not need a major “cram” the night before an exam. A brief review should be more than sufficient.

PROFESSIONALISM: Professional behavior is expected of all students in the class. This includes regular, punctual classroom attendance; attentive and constructive participation in class discussion; conscientious out-of-class study habits; and neat and timely submission of class assignments. The work habits you have, or develop, in college are those you will take into the business world. Failure to abide by these norms may result in a failing grade in the class.

ATTENDANCE: You are expected to attend class during each scheduled class meeting. If you cannot, for any reason, you are expected to inform the instructor in a timely manner. One unexcused absence (that is, one absence which you did not contact me about) puts you in jeopardy of failing the course. A second unexcused absence results in a failing grade in the course. Additionally, habitual tardiness or absence (even if nominally “excused”) may result in a failing grade.

ACCOMMODATION FOR SPECIAL NEEDS: If you anticipate barriers related to the format or requirements of this course, please meet with me so that we can discuss ways to facilitate your full participation in the course. If you believe that disability-related accommodations are necessary, please register with the Academic Resources Center (822-7172; www.stetson.edu/arc) and notify me of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations.
HOW WILL YOU BE EVALUATED IN THIS COURSE?

GENERAL PHILOSOPHY: I am very much of the opinion that grades are overemphasized in contemporary academic practice. I like the following quote (which I stumbled across in a professional journal).

It is not difficult to understand why students might come to the conclusion that instructors overly stress grade orientation and give only short shrift to learning orientation. Almost every syllabus contains descriptions of how grades are calculated; few address the need to find excitement in course material. Colleges regularly establish remedial classes for students receiving poor grades; they rarely, if ever, offer remedial instruction for students unable to find excitement in English literature or physics. Grades are a required part of every class, but instructors are not obliged to stimulate interest in course content. In fact, it is possible for someone to teach for an entire career and not excite interest in his or her discipline; any instructor who failed to assign grades would be dismissed after only a short tenure.

Howard R. Pollio and Hall P. Beck, “When the Tail Wags the Dog”

I will grade you fairly and objectively. I will not inflate grades. I will make every effort to provide prompt feedback. And I will maintain a focus that the grade is a means (to identify strengths in learning that can be acknowledged, and deficiencies in learning that can be remedied), rather than an end.

GRADES: Course grades represent the instructor's assessment of the student's mastery of the material. Grades are assigned according to the following interpretive framework:

A - An “A” indicates that the student has demonstrated outstanding mastery of the subject material. S/he shows a deep understanding of the material's concepts, implications, and applications.

B - A “B” indicates that the student has demonstrated a good solid competence in the mechanics of the subject matter, but is weak in understanding of the underlying motivations of the material.

C - A “C” indicates that the student has demonstrated basic ability in course concepts as reflected by foundational capability in calculation, but has marginal capabilities with material beyond these fundamentals.

Grades of “D” and “F” represent unacceptably low levels of course mastery, and will be assigned as required.

GRADING: Assessment of student mastery of course material will be on the basis of the following:

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<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Two regular exams</td>
<td>20%</td>
</tr>
<tr>
<td>Comprehensive final exam</td>
<td>15%</td>
</tr>
<tr>
<td>Reading assignment</td>
<td>10%</td>
</tr>
<tr>
<td>Participation (attendance, homework)</td>
<td>20%</td>
</tr>
<tr>
<td>Course project</td>
<td>35%</td>
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</table>

A scale of 85/70/55 will be used. All course assignments and exams will be written and graded with the interpretive framework and scale given above being kept in mind.