ECONOMICS 250  
Sections 4 & 5, Fall Semester 2006  

Why is the Schedule First?  
This is the part of the Syllabus you will refer to most often. Much of it won’t make sense until you have read the rest of the schedule. This schedule is subject to change. An up-to-date syllabus will always be available on the class web site: http://www.uncg.edu/eco/neufeld/econ250. Consult the date at the lower right hand corner of each page to determine when it was last modified.

Tentative Schedule

Unless otherwise noted, to avoid penalty, HLS modules must be certified by midnight in the day shown in the schedule. Homework is due on Tuesday of the week shown. Changes and corrections from the syllabus distributed at the beginning of the semester are in red.

<table>
<thead>
<tr>
<th>Tuesday’s Date</th>
<th>Chapters in Neufeld</th>
<th>Adventures Modules (Due Monday Unless Indicated Otherwise)</th>
<th>Homework (Turn in Tues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 15</td>
<td>1 &amp; 2</td>
<td></td>
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<tr>
<td>Aug. 22</td>
<td>3</td>
<td>Measures of Center(3.1), Measures of Dispersion(3.2) (both due 8/23)</td>
<td>#1 (due 8/24)</td>
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<tr>
<td>Aug. 29</td>
<td>4</td>
<td>Classical Probability(4.1), Discrete Random Variables (5.1) (both due 8/28)</td>
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<tr>
<td>Sept. 5 (Quiz 9/7)</td>
<td>5</td>
<td>The Binomial Distribution (5.2) (due 9/4)</td>
<td>#2</td>
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<td>Sept. 12</td>
<td></td>
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<tr>
<td>Sept. 19 (Quiz 9/21)</td>
<td>6</td>
<td>The Normal Distribution (6.3), Finding the Value of Z (6.4) (due 9/18)</td>
<td>#3</td>
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<tr>
<td>Sept. 26</td>
<td>6</td>
<td></td>
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<tr>
<td>Oct. 5</td>
<td>7</td>
<td>Sampling Distributions (Means) (7.3) (due 10/4)</td>
<td>#4</td>
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<tr>
<td>Oct. 10 (no class 10/10)</td>
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<tr>
<td>Oct. 17 (Midterm 10/19)</td>
<td>8</td>
<td>Estimating Means: Sigma Unknown (8.3) (due 10/16)</td>
<td>#5</td>
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<tr>
<td>Oct. 24 (Quiz 10/26)</td>
<td>8 &amp; 9</td>
<td></td>
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<td>Oct. 31</td>
<td>9</td>
<td></td>
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<tr>
<td>Nov. 7 (Quiz 11/9)</td>
<td>10</td>
<td>Hypothesis Testing Means: t Value (9.5) (due 11/6)</td>
<td>#6</td>
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<tr>
<td>Nov. 14 (Midterm 11/16)</td>
<td>10 &amp; 12</td>
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<td></td>
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<tr>
<td>Nov. 21 (No class 11/23)</td>
<td>12</td>
<td>Estimating Proportions (8.1) (due 11/20)</td>
<td>#7</td>
</tr>
<tr>
<td>Nov. 28 (Quiz 11/30)</td>
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<td>Fitting a Linear Model (11.2) (due 11.29)</td>
<td>#8</td>
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</table>

Final Exam:  
**Eco 250.04 (11:00-12:15):** Tuesday, Dec 12, 12:00 noon—3:00 pm, 221 Bryan  
**Eco 250.05 (9:30-10:45):** Thursday, Dec 7, 8:00 am—11:00 am, 221 Bryan

Who is the Teacher?  
Dr. John L. Neufeld  
449 Bryan Building  
telephone: 334-4869  

8/4/2006
e-mail: john_neufeld@uncg.edu
Office Hours: By appointment. Students in this class are welcome to come to my office at any time.

Who is the Teaching Assistant?
To be announced

Where Do We Meet?
On Tuesdays section 04 (11:00-12:15) will meet in room 206
section 05 (9:30-10:45) will meet in room 111
On Thursdays both sections will meet in room 221 (computer lab).

What is this Course About?
This is a computer intensive introduction to statistics. Heavy use of computers will be made to learn statistical concepts and to solve statistical problems. Once you successfully complete this course, you will have a solid foundation in business statistics and you will be proficient in the use of Excel. Computers make statistical analysis much easier to do, and anyone at any level doing such analysis is likely to be doing it on a computer. By initially learning statistics using a computer, you will be better prepared to do your own statistical analysis.

How Hard is This Course?
Compared to most courses the work load is very heavy. Expect to spend 10 to 20 hours outside of class each week. Success in this course depends more on keeping up than on anything else you can do. If you have a job requiring more than 20 hours per week, are taking a heavy load, or are not good at time management, be careful! If you keep up with the work in this course, you will almost certainly do well.

Can I Get Extra Help?:
Absolutely. Every semester many students come to my office for extra help. Please don’t hesitate to get in touch with me. I can be easily reached by e-mail (including most evenings and weekends), and you are always welcome to come by my office. In addition, the teaching assistant will also be available with office hours to any student wanting extra help. Occasionally students ask me about tutoring. Don’t jump to the assumption that you need a tutor unless you have already tried getting help from me and from my assistant. I will be glad to assist you in locating a tutor either through the university or privately.

What Texts Must I Buy?
Required:
(Note: Do not expect these items to be available on the Internet, but they are available at the campus bookstore).

How Will My Course Grade be Determined?
Your grade in the course will be based on your performance on five components explained below. Each component will carry the following weights:

- HLS modules: 12% (Each module is 1%)
- homework average: 8% (Each assignment is 1%)
- quizzes: 25% (Each quiz is 5%)
- midterm average: 30% (Each midterm is 15%)
- final exam: 25%

There is a penalty for late homework and HLS modules.
**Do I Have to Come to Class?**

Success in this course requires keeping up with the workload. The material is not difficult, but it is time-consuming. To keep up, you need to attend class regularly. You are expected to attend every class. If you must miss class, provide me with a note (paper or email), preferably in advance. If you are absent an excessive number of times without explanation, I will drop you from the course.

**What Behavior is Expected of Me in Class?**

1. Be in the classroom before the class is scheduled to start. Do not be surprised to find the door locked if you are late.
2. If you must miss a class, notify me in advance or as soon afterwards as possible.
3. If you must leave class early, notify me before class begins. It is rude to walk out unexpectedly in the middle of a class.
4. Ask questions in class! Participation will help you maintain attention and will help me know how much you are understanding.
5. Follow the rules of the Honor Code. Familiarize yourself with the UNCG honor code in the student handbook. The honor pledge, “I have abided by the Academic Honor Policy on this Assignment,” should be placed on all work submitted for grading. Certification of an Hawkes module must be done by you alone. Homework must be your work alone. Infractions of the honor policy will be dealt with severely.

**Do I Have to Memorize Formulas?**

No. Understanding statistics is not about memorizing. A (double-sided) sheet containing all of the needed formulas (plus more) will be available for your use during all quizzes and exams. A copy is available on the course web site. You should download it and use it when doing homework so that you learn where the information on it is.

**What Will Be On the Exams?**

No surprises. As you will see below, by the time you take an exam which weights heavily on your grade, you will have gained plenty of experience with the very type of question on the exam. In addition, the web site contains copies of all of last year’s quizzes and exams (with data and answers).

**Is There Homework?**

Yes, but not enough. You will be responsible for doing HLS modules (described below) and other homework problems available on the class Web site which will be collected and graded. Your answers to the problems distributed on the Web should be turned in either 1) in class or 2) in the tray or envelope outside the graduate assistant’s office (to be announced).

To do well in this course, you need much more experience in working problems. In addition to the assigned homework, you should work every problem at the end of assigned chapters and check your answers against those given in Appendix D.

**What are the HLS Modules?**

The Hawkes Learning Systems software gives you the opportunity to practice the kind of problems which you will be asked to do in exams. You are required to work through some modules as part of the course homework. You can do this either in a computer lab or on your home computer. The software can be used in practice or certify mode. In certify mode, the software gives you a test. You are asked to answer a certain number of questions. If you succeed, you have certified that module. There is no penalty for failing to certify during an attempt, but, as shown in the course schedule, your are required to certify certain modules by specified deadlines.

Specific instructions on how to install the software on your home computer and how to use the software either on your computer or on a UNCG lab computer are available on the class web site. Before you can use the software, you must obtain a user code. The
instructions cover this as well. In order to get a user code, you must purchase the software. This means that even if you intend to do all of your work on a UNCG lab machine, you will not be able to use the software installed there unless you purchase the software and get a user code.

It is important that use Excel to work the HLS modules. Unfortunately, the “help” provided by the modules does not teach you how to do this. Therefore, do not use the help features in the modules; instead follow the instructions I give in class. If you have trouble using Excel, ask me for help. **Your grade will be higher if you are conscientious about using Excel (even if you certify late) than it will be if you use the (non-Excel) procedure given in the modules (even though you certify on time).**

Once you certify a module, the software will offer to print a certificate. Print the certificate and keep it for the duration of the course. It will probably never be collected from you, but in case of a computer glitch, it is the only proof you have met a course requirement.

In order to get credit for completing a module, your completion must be registered on the online grade book. This should happen automatically if you certify on an Internet connected machine, but you would be wise to check to make sure. **The due dates for HLS modules refer to the date on which the certification was registered.** This might not be the same as the date you completed the assignment.

HLS provides an online web-based grade book (called the Progress Report), which we will be using in the class. That grade book will have a complete record of all of your graded assignments (HLS modules, homework, quizzes, and midterms).

To get to the online grade book, point your browser to [http://www.hawkeslearning.com/UNCGSTAT](http://www.hawkeslearning.com/UNCGSTAT). A link to this site is also available on the class web site on the “Progress Report” link on the navigation bar of every page. In order to enter the web site, you must provide your HLS user code (the same one you need to run the HLS: Statistics program). It is best if you store a copy of the file containing your code that was e-mailed to you when you first registered with HLS. You can then tell the web site to read your code from that file.

The first time you view the Progress Report, you will be asked for your “Instructor” and “Section.” Choose “ECO 250 for Instructor,” and “05” for your Section. You will not be asked for that information in subsequent accesses. If you give the wrong information initially, please get in touch with me.

**What is My Current Average?**

HLS provides an online web-based grade book (called the Progress Report), which we will be using in the class. That grade book will have a complete record of all of your graded assignments (HLS modules, homework, quizzes, and midterms).

To get to the online grade book, point your browser to [http://www.hawkeslearning.com/UNCGSTAT](http://www.hawkeslearning.com/UNCGSTAT). A link to this site is also available on the class web site on the “Progress Report” link on the navigation bar of every page. In order to enter the web site, you must provide your HLS user code (the same one you need to run the HLS: Statistics program). It is best if you store a copy of the file containing your code that was e-mailed to you when you first registered with HLS. You can then tell the web site to read your code from that file.

The first time you view the Progress Report, you will be asked for your “Instructor” and “Section.” Choose “ECO 250 for Instructor,” and “05” for your Section. You will not be asked for that information in subsequent accesses. If you give the wrong information initially, please get in touch with me.

**How Do I Register an HLS Module?**

First go to the Progress Report on the web site and enter it with your user code. To register certification open the “Register” menu on the menu bar and select “Register certificate.” The program will ask you which module you wish to register will give you several choices for entering the code. The easiest method is to enter it by pointing the Progress Report to the file that was created by HLS: Statistics when you certified. You also can enter the certification code by hand from the hard copy certificate you should have printed when you certified.

The deadlines shown on the schedule are deadlines for registering certification, not completing certification. To get full credit you must register a certificate as described above **before the deadline.** HLS certifications must be registered before midnight on the date shown on the schedule. Timely registration results in a grade of 100. Late registrations receive a 10 point penalty per day to a maximum of 50 points. You will receive at least a grade of 50 if you register before the end of class. If you do not register an assigned module at all, your grade will be zero.
It is a violation of the honor code for you to help another person working in certification mode, or to receive help from another person while you are working in certification mode. It is a violation of the honor code for you to use another person's identification code or to allow another person to use your code.

Why so Many Quizzes?

The purpose of the quizzes is to give you experience working problems in an examination setting before a Midterm or the Final exam. Quizzes will be, at most, 30 minutes long. The best way to prepare for a quiz is to do the problems at the end of each chapter in *Learning Business Statistics* and to do the homework.

What about the Midterm Exams?

These exams have a heavy weight in determining your grade. They will take an entire class period, and the dates on which they will be given are shown in the schedule. By the time you take a midterm, you will have already seen all of the types of questions on homework problems and quizzes. You can prepare for the midterm exams by reviewing the homework problems (including all the questions at the back of the covered chapters) and by reviewing the quizzes.

What about the Final Exam?

The date and time of your final exam in this course are shown on the schedule. The exam will be cumulative.

What Will I Learn From This Course?

You will have the opportunity to learn the following:

1. Learn how to use Excel to take a set of data and calculate common measures of location and dispersion and determine the presence and direction of skew.
2. When given a business choice expressed as different discrete probability functions, be able to determine the expected value and standard deviation of each choice and be able to apply the concept of risk aversion to determine the extent to which this can help determine choice rankings.
3. Calculate probabilities of random variables from binomial, normal, and *t* distributions using Excel.
4. Given a set of sample data, use Excel to estimate a confidence interval estimate on a population mean.
5. Given a set of sample data, use Excel to estimate a confidence interval estimate on a population proportion.
6. Given a hypothesized population standard deviation, be able to estimate the sample size required to achieve a targeted sampling error for a given level of confidence.
7. Given a hypothesized population proportion, be able to estimate the sample size required to achieve a targeted sampling error for a given level of confidence.
8. Given a set of sample data, use Excel to perform a hypothesis test on a population mean.
9. Given a set of sample data, use Excel to perform a hypothesis test on a population proportion.
10. Explain the consequences of Type I and Type II error within the context of a hypothesis test of a business problem and determine how the test design can be altered to affect the likelihood of each type error.
11. Given a set of sample data, estimate and interpret a simple regression using Excel and interpret the results.
12. Given the output from a simple regression, be able to determine the significance of the relationship and to use the regression equation to predict the value of the dependent variable given a value of the independent variable not in the original data.
Purchase the software required by your instructor. Please note that once you open the package, the materials are NOT refundable.

**TO INSTALL THE SOFTWARE AT HOME (Don't install it in a lab machine—it's already installed):**

1. Place CD #1 in the CD-ROM drive. (CD#1 is the only CD needed for the installation.)
2. Double-click on the My Computer icon.
3. Double-click on the CD-ROM drive (has a picture of a CD-ROM disk).
4. Double-click on Setup.exe.
5. Follow the on-screen instructions.
6. You will be prompted for a Course ID.
   - If you have internet access, select “Yes, the Course ID is:” and enter UNCGSTAT in the box provided.
   - If you do not have internet access, select the option that says “No, I will not be accessing an online progress report from this computer.”

**TO GET YOUR ACCESS CODE:**

1. If you have internet access, double-click on the purple diamond icon on the Desktop (or go to Start, Programs, Hawkes Learning Systems). When prompted to enter an access code, click on the link that says I do not have an access code to be directed to our website.
   a. Fill out the form (including your 15-digit license number from the yellow sticker on the CD sleeve). Click on the submit button and your personalized access code will appear on the screen.
   b. You will also receive an e-mail with the access code in the body of the text and as an attachment file whose name ends in “.cod.” Save it on the computer where you will run the program. You also should save a copy on the UNCG lab network on the R: drive.
2. If you do not have internet access, you will need to go to a computer with internet access and go to www.hawkeslearning.com. Click on get your access code and follow steps a. and b. above.

**TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:**

1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your access code when prompted. You may type it, paste it, or load it from a disk (if you saved it from e-mail) by clicking the “F1-Load From Disk” option and browsing to the path where you saved it. If you type or paste your access code, you will be prompted to save it. Save your access code to a disk or USB flash memory to avoid typing it each time.

**TO RUN THE PROGRAM FROM A UNCG LAB MACHINE:**

1. Double-click the “UNCG Applications” on the desktop. When it opens, open the following sequence of icons: UNCG_TREEÆAcademic Software.
2. You can get to the HLS: Statistics icon either by then opening the MBA icon or by opening EconomicsÆECON 250. Double Click the HLS 8.4 icon.

**TO ENROLL IN THE CLASS GRADEBOOK:**

1. If you have internet access and have entered your Course ID (which is UNCGSTAT), you will automatically be asked to enroll in your instructor’s gradebook the first time that you log in to the software. In our case, the “Instructor” is actually the course you are taking (ECO 250). It will then ask for your section. If you do not have internet access on the computer where the software is installed, you will need to enroll in your instructor’s gradebook on a computer that does have internet access by going to www.hawkeslearning.com/UNCGSTAT. After entering your Access Code, you will then choose your course.

**TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):**

1. The Certify option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
   a. If you have internet access, you should receive a message that says your certificate has been submitted in your instructor’s gradebook. You are now done with that assignment! If you do not receive this message, follow the directions under “b.”
   b. If you do not have internet access, you will need to manually submit your certification code on the internet to get credit for your assignment in your instructor’s gradebook. To do this,
      - go to www.hawkeslearning.com/UNCGSTAT and log in using your access code
      - click the Submit Certificate(s) link
      - select the Lesson Name from the drop down list. Load from disk or type in your certification code and click OK. Your certification code is now submitted!
      - you need to perform these steps after you Certify to get credit for each of your assignments

* Be sure you submit your Certification Code ON or BEFORE the due date to get full credit for the assignment.