

Syllabus

Introductory Statistics for the Health Professions

Course Information

Course title: Introductory Statistics for the Health Professions

Course number: DPPP-330

Course description: *Distance Introductory Statistics for the Health Professions* is designed for students entering a medical profession that requires a prerequisite statistics course. The four-credit hour, one-semester course can be taken by anyone with Internet access from anywhere in the world.

This course contains the same major subject and content areas as a traditional statistics course: descriptive statistics, probability, inferential statistics, and linear regression. It differs from most traditional statistics courses because one emphasis is relevance to the medical professions. A substantial number of human health examples are included to demonstrate the relevance of statistics to health and disease.

Many of the students taking this course will have an undergraduate degree and will be in the process of a career change. Many will be aspiring to become a DPT, Pharmacist, Optometrist, CRNA, PA, Genetic Counselor, or some other health professional.

Every day the professor will have either an email or phone office hour. Communication with the professor is strongly encouraged.

Prerequisite(s): None

Instructor Information

Name: Lori J. Koban, PhD

Email: lori.koban@maine.edu (or you may email me through Blackboard)

Phone: Feel free to call me at 207-860-8843.

Office Hours: If you have a question that does not lend itself to written communication, please email me and request that we set up a phone call.

Technical Assistance:

If you have a problem with Blackboard or your software, please make sure that you email comdistancetechhelp@une.edu or call us at (207) 602-2335 or (207) 602-2689

Course Goals and Objectives

To give the student interested in the health professions an introduction to Statistics. This course contains the same major subject and content areas as a traditional Statistics course: descriptive statistics, probability, inferential statistics, and linear regression. It differs from most traditional statistics courses because one emphasis is relevance to the medical professions. A substantial number of human health examples are included to demonstrate the relevance of statistics to health and disease. The major subjects are descriptive statistics, probability, inferential statistic, and linear regression. Specifically, we will cover chapters with the following titles:

- Statistics and How they are Used,
- Populations and Samples,
- Organizing and Displaying Data,
- Summarizing Data (measures of center and variation),
- Probability,
- The Normal Distribution,
- Sampling Distribution of Means and Estimation,
- One-Sample Significance Testing, Point Estimates, and Confidence Intervals,
- Two-Sample Significance Testing, Point Estimates, and Confidence Intervals,
- Inferences Regarding Proportions,
- The Chi-Square Test, and
- Correlation and Linear Regression.

Students will use the software SPSS Statistics to write a statistical report that applies the concepts learned in the course.

Course Materials

- **Textbook:** *Basic Statistics for the Health Sciences*, 5th edition, Jan Kuzma and Steve Bohnenblust, McGraw-Hill, 2004. The cost of the textbook is included in the laboratory fee. The textbook will be mailed to the student after registration in the course.
- **Lecture DVDs:** These will be sent to you following registration. You should return the DVDs after you complete the course.
- **SPSS Software:** You will need to purchase the SPSS Statistics software. The cost of SPSS is **not included** in the laboratory fee. You can get a 6 month rental by going to the link <http://e5.onthehub.com/Webstore/Welcome.aspx?ws=49c547ba-f56d-dd11-bb6c-0030485a6b08>. In the "Product Search" box, type "SPSS." A 6 month rental for IBM® SPSS® Statistics will suffice for this course. Be sure to purchase the Mac or Windows version that is appropriate for you. The cost is \$35.00. Do not purchase this software until you are instructed to do so. You only have a 6 month rental, so I want you to wait to purchase it until you need it in the course. Note: To rent the SSS software, you need to prove that you have a .edu email address. You automatically get a une email address when you register for an online class. The form of the email address is username.une.edu.
 - ❖ To find your user name, go to <http://uonline.une.edu/> and click on "Lookup Your Nor'easter Login."
 - ❖ Your original password is your six-digit birthdate. (For example, December, 6, 1974 is the password 120674.)
- **Scientific Calculator:** You will need a scientific calculator for this course. Any calculator that has an exponent and square root key suffices. If you need to purchase a calculator, I recommend the TI-30XIIS. It is solar. Also, it has a two-line display window, which makes it easier to keep track of complicated expressions. It costs between \$20 and \$30.

Course Format

For each chapter you will:

- watch the lectures on DVD (lecture outlines are available on Blackboard),
- complete homework problems and check your answers, and
- complete the online quiz.

Regular contact with your professor is strongly encouraged!

This course is designed to take 16 weeks to complete. A detailed "Timeline" is on Blackboard so that students can stay on track.

Grading

Homework	0 explicit points
Chapter Quizzes (20 points each)	240 points
Exam 1	100 points
Exam 2	100 points
Final Exam (must be proctored)	400 points
Project	200 points
TOTAL	1040 points

Grades will be assigned as follows:

- At least an A- (90% or more)
- At least a B- (80% - 89%)
- At least a C- (70% - 79%)
- At least a D- (60% - 69%)

The instructor reserves the right to change this policy if it benefits the student.

Homework: Though homework is not graded, it is the most important part of the course. You should work all homework problems, check your answers, and contact the instructor with questions.

Chapter Quizzes: After completing the homework for each chapter you will take an online quiz. After you take each quiz, you will see the correct solutions. You may retake each quiz as often as you like (the questions will change). For each quiz, your grade will be the average of all attempts. There is no time limit on quizzes.

Exams: There will be two chapter exams. Exam 1 will cover Chapters 1-6, and Exam 2 will cover Chapters 7-9 and 11-13. You may take each exam as often as you like, but your grade is based on your first attempt. There is a two-hour time limit on exams.

Final Exam: This proctored, open book exam will cover all material in the course, except the SPSS content. To prepare for it, study homework problems, chapter quizzes, and the two exams. There is a 4 hour time limit.

Project: There will be a culminating course project. You will use the statistical techniques we learned, together with SPSS to write a statistical report.

Procedures for Arranging Required Proctoring of the Final Exam

All quizzes, chapter exams, and the final will be open book. Quizzes and chapter exams will be taken on-line. The final will be a proctored exam. You may arrange to take the final at the University of New England, the University of Maine Farmington, or as a distance exam. If you wish to take the exam at the University of New England in Biddeford, Maine or the University of Maine Farmington in Farmington, Maine, contact your instructor, Lori Koban.

Online Exams

The University of New England has contracted with ProctorU.com to provide students in DPPP370 the most convenient, at home, on line exam proctoring system. This system provides a simple, no cost to the student, secure, on line proctor for all of your exams. This system allows the student to take all of the exams at home and on their own schedule. Please see system requirements to ensure you have the necessary computer setup to use ProctorU. Upon enrollment into DPPP370 students will register with ProctorU and establish a login name and password. This will give you access to all of ProctorU's services. When ready, students will schedule their exams with ProctorU **one week** prior to taking that exam. Upon the exam day and hour, students will log in to proctor U and click on "exams". Following the procedures outlined at ProctorU's web site, the student will log in to Blackboard, open the appropriate exam and the proctor will then allow student access to that exam.

Tech Requirements:

- PC: Windows XP, Windows Vista or Windows 7 with 256 MB of RAM or higher
- Mac: Mac OS10 or higher
- A web cam with 640x480 video pixel resolution
- Headphones or working speakers connected to the computer
- A microphone connected to the computer (we recommend having a web cam that has a built in microphone)
- A high speed internet connection (minimum 768 Kbps/128 Kbps)
- A web browser with Adobe Flash Player installed. (Google Chrome recommended for ProctorU website)
- Authority to allow remote access to your computer and screen by one of our proctors

You will need to register with Proctor U to take the exam at least 1 week prior to when you would like to schedule the exam.

For further instructions on taking online exams visit, [Online Learning's Proctor U site](#).

Written Proctored Exam

Students may take the exam at the University of New England College of Osteopathic Medicine's Campus. The exam is offered the first Saturday of every month. If the first Saturday of the month is a holiday, the exam will take place on the second Saturday of the month.

Students wishing to take a paper version of the exam close to home with an approved proctor can do so with the permission of the instructor. Please contact us for information at comdistance@une.edu or (207) 602-2494.

Withdrawal from the Course and Refunds

Enrollment in the course begins the day the payment is processed. Students may withdraw from the course during the first 28 days after date of enrollment. In this case a "Withdraw (W)" will be entered on the official transcript. The withdrawal date will be the date that written notice of the withdrawal such as email, fax or letter is received by the University of New England; *verbal notification is not sufficient*. During this 28 day withdraw period, a percentage of the student's tuition, but *not* the registration or laboratory fees, will be refunded according to the following schedule: 100% of tuition refunded for withdrawal within 14 calendar days; 66% of tuition refunded for withdrawal from 15 to 21 calendar days; 33% of tuition refunded for withdrawal from 22 to 28 calendar days. No refund will be made after 29 calendar days.

After the 28-day withdrawal period, students may still withdraw from the course at any time they wish before taking the final exam. In this instance, either a "Withdraw Pass (WP)" or a "Withdraw Fail (WF)" will be entered on the student's transcript depending on the student's academic standing, based on the quiz grades taken up to the time the student withdraws. Again, the University of New England must be notified in writing of the withdrawal.

Notification that the course materials have been received, and all requests for withdrawal, should be directed to:

All requests for withdrawals should be directed to:

Ms. Angela Morse
Biomedical Sciences Department
COM Distance Education

University of New England
11 Hills Beach Road
Biddeford ME 04005
Phone: (207)-602-2494
Fax: (207)-602-5931
amorse@une.edu

Course Extensions

If, due to extenuating circumstances, a student feels that it will not be possible to complete the course in the 16 week time period, an extension may be requested by notifying the instructor, Lori Koban. A time extension carries no sanction and will not be noted on the transcript.

1. Courses in the CDE program are equivalent to one semester courses designed to be completed in 16 weeks
2. Many students are nontraditional students who have elected on on-line course for its flexibility. Therefore students may complete the course in less than 16 weeks or they may take as long as 8 months.
3. Enrollment in the course will begin on the day that the payment is processed
4. Students for whom a grade has not been posted for course by 32 weeks (8 months) will be flagged by the administrative staff. An e-mail will be sent to the instructor asking him/her to contact the student and determine what the best option is for the student based upon the student's needs.

Transcripts

Due to the Family Privacy Act, official transcripts may only be requested by the student. This may be done online by going to the University of New England Registrar website and following the directions on the page. The URL is: <http://www.une.edu/registrar/transcript.asp>. Fill in and sign the request and either mail or fax it to the University Campus address on the form.

Students with Learning Differences

Any student with a documented disability needing academic adjustments or accommodations is requested to speak with the professor prior to or during the first week of class. All discussions will remain confidential. All students should register with the ADA services prior to the start of coursework for special accommodations. Please visit the following UNE websites:

- **Student Handbook Online - Policies and Procedures:**
<http://www.une.edu/studentlife/handbook/>
- **UNE Student Support Services:**
<http://www.une.edu/studentlife/portland/las/index.cfm>

Suggested Timeline

Week	Goals
	<ul style="list-style-type: none"> ➤ Read Syllabus ➤ Contact professor to discuss syllabus ➤ Read and complete the "Academic Integrity Agreement" on Blackboard. (If you do not complete this, you will not be allowed to take any course quizzes or exams.)
1	<p>Chapters 1-3</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Chapters 1 - 2 (13 minutes) - Section 3.1 (16 minutes) - Sections 3.2 - 3.3 (14 minutes) - Section 3.4 (42 minutes) ➤ Complete Homework ➤ Take (and retake) Quiz
2	<p>Chapter 4</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Section 4.1 (30 minutes) - Section 4.2 (30 minutes) - Section 4.3 (9 minutes) - Section 4.4 (1 minute) - Section 4.5 (1 minute) ➤ Complete Homework ➤ Take (and retake) Quiz
3	<p>Chapter 5</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Section 5.1 (21 minutes) - Sections 5.2 - 5.3 (40 minutes) - Section 5.4 (17 minutes) - Section 5.5 (14 minutes) - Section 5.6 (6 minutes) - Section 5.7 (24 minutes) ➤ Complete Homework ➤ Take (and retake) Quiz
4	<p>Chapter 6</p>

	<ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Section 6.1 (13 minutes) - Section 6.2 (23 minutes) - Section 6.3a (15 minutes) - Section 6.3b (31 minutes) - Section 6.3c (14 minutes) ➤ Complete Homework ➤ Take (and retake) Quiz ➤ Review Chapters 1-6 ➤ Take Exam 1
5	<p>Chapter 7 - Part 1</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Section 7.1 (15 minutes) - Section 7.2 (28 minutes) - Sections 7.3 and 7.5 (22 minutes) ➤ Complete Homework ➤ Take (and retake) Quiz
6	<p>Chapter 7 - Part 2</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Sections 7.4 and 7.6 (? minutes) - Section 7.7 (? minutes) - Section 7.8 (? minutes) ➤ Complete Homework ➤ Take (and retake) Quiz
7	<p>Chapter 8</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Sections 8.4 to 8.7 - Part 1 (38 minutes) - Sections 8.4 to 8.7 - Part 2 (25 minutes) - Sections 8.1 to 8.3 (1 minute) - Sections 8.11 to 8.14 (17 minutes) - Sections 8.15 to 8.16 (9 minutes) - Sections 8.8 to 8.10 (17 minutes) ➤ Complete Homework ➤ Take (and retake) Quiz
8	<p>Chapter 9</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes

	<ul style="list-style-type: none"> - Sections 9.1 - 9.3 (7 minutes) - Section 9.4 (40 minutes) - Section 9.5 (29 minutes) - Section 9.6 (7 minutes) - Section 9.7 (1 minute) - Section 9.8 (12 minutes) ➤ Complete Homework ➤ Take (and retake) Quiz
9	<p>Chapter 11</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Section 11.1 (15 minutes) - Sections 11.2 - 11.3 (19 minutes) - Section 11.4 (21 minutes) - Section 11.5 (17 minutes) - Section 11.6 (23 minutes) ➤ Complete Homework ➤ Take (and retake) Quiz
10	<p>Chapter 12</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Sections 12.1 - 12.3 (15 minutes) - Section 12.4 (22 minutes) - Section 12.5 (18 minutes) - Section 12.6 (8 minutes) ➤ Complete Homework ➤ Take (and retake) Quiz
11	<p>Chapter 13</p> <ul style="list-style-type: none"> ➤ Read Textbook, Watch Lectures, and Complete Lecture Notes <ul style="list-style-type: none"> - Sections 13.1 - 13.3 (22 minutes) - Section 13.4 (20 minutes) - Section 13.5 (22 minutes) - Section 13.6 (3 minutes) - Section 13.7 (14 minutes) - Section 13.8 (3 minutes) ➤ Complete Homework ➤ Take (and retake) Quiz ➤ Review Chapters 7-9 and 11-13 ➤ Take Exam 2

12	SPSS <ul style="list-style-type: none"> ➤ Purchase on-line (see the syllabus) ➤ Complete the "SPSS Tutorial" ➤ Complete the "SPSS Quiz"
13, 14, 15	Comprehensive Project (with SPSS) <ul style="list-style-type: none"> ➤ Week 13: Do Part 1 of the project and start collecting data. ➤ Week 14: Do Part 2 of the project. ➤ Week 15: Do Part 3 of the project.
16	Final Exam <ul style="list-style-type: none"> ➤ Study for Final Exam. Look in the Exam folder on Blackboard for the final exam rules. Note, you may use your textbook and notes during the final exam. ➤ You may take the final exam any time after completing Exam 2. That is, you may take the final exam before you finish (or even start) the comprehensive project.