

STAT 121 Hybrid Summer 2015
Session 2: July 6th-Aug 13th
Introduction to Statistics for the Social Sciences

Instructor: Ms. Bonnie Kegan

EMAIL: bkegan1@umbc.edu

Contact Numbers: 410-507-9328 (mobile) 301-763-7639 (work)

Face-to-Face Sessions: THURSDAYS 6:30-8pm MP101

Instructor Virtual Office Hours: I am happy to meet with students ONLINE (using Blackboard Collaborate) by appointment on Monday/Wednesday evenings from 8:30pm-10pm. (I can also do Sat/Sun or other evening times if arranged in advance) This is a time when I can answer your questions, work through example problems (on a virtual whiteboard), or demonstrate how to use Excel or Statcrunch to complete HW. If you have speakers you can hear me talk as well as see me write on the board or see my desktop display.

Course Materials: IMPORTANT: Please buy the access codes directly from the bookstore (\$130 package). You can purchase access directly from the separate websites below but it will cost you more.

1) **Digital Package:** 10 digit isbn – 1259401316 / 13 digit isbn – 9781259401312

NAVIDI LSC CPSH (UNIV OF MARYLAND BALTIMORE CNTY) STAT 121: PPK ConnectPlus Math by ALEKS 52 Weeks Access Card for Essential Statistics w/Smartbook AC

This package includes access codes for 2 websites, to register use the course/section codes provided below:

- **SMARTBOOK/LEARNSMART ACCESS (COURSE/SECTION CODE: 121Summer2_2015)**

Go to learnsmartadvantage.com and click on ENTER YOUR ACCESS CODE (upper right) and enter your purchased access code. Then create your account and enter the SECTION CODE given above when asked.

AFTER you have signed up you can visit this Website (link also provided in blackboard):

<http://www.mhlearnsmart.com/flow/flowswf.html?isbn=1259174816&name=smartbook&product=123417>

- **CONNECT (hosted by ALEKS) (COURSE CODE: DYNDV-P6GXL)** Click on CONNECT MATH tool link on blackboard course page to access site and create an account.

Website: <http://www.connectmath.com>

2) **OPTIONAL Package with hard bound text:** 10 digit isbn – 1259401324 /13 digit isbn – 9781259401329 NAVIDI LSC COLH (UNIV OF MARYLAND BALTIMORE CNTY) STAT 121: PPK Essential Statistics w/Connect Hosted by Aleks

This package includes access codes for the same 2 websites, but also includes a hard copy of the text.

3) **Calculator:** You will need a basic calculator with a square root function for quizzes and exams. A scientific calculator (TI-36X, or similar) is recommended. For some homework you will need to do more advanced statistical calculations. Some options for this are listed below.

Options for Statistical “Calculator”:

- a) STATCRUNCH (Online access for 6 months costs only \$13.50 at www.statcrunch.com)
- b) TI-83plus/TI-84/TI-84plus (More expensive option if you don’t already have one)
- c) Microsoft Excel
- d) TI-30X IIS Scientific Calculator-basic statistical functions and data entry

5) **WEB BROWSER:** I always recommend CHROME or FIREFOX browsers to avoid technical issues. Adobe Flash is also required to use SMARTBOOK. This is a **HYBRID class** which means you will need to have DAILY reliable access to a computer with internet and other basic capabilities. If your computer is “temperamental” be sure to have a backup plan!

Grading: Note the contribution of each graded item to your final grade below:

Item	Percentage	Points	Grading Scale
Online Exams (2 in Blackboard)	20%	200	A: 900-1000 points
Online reading/study (10 of 11 in Smartbook)	10%	100	B: 800-899 points
Online Homework (10 of 12 in Connect)	20%	200	C: 700-799 points
CUMULATIVE FINAL EXAM (Aug 13 th in class)	50%	500	D: 600- 699 points
TOTAL POINTS		1000	F: less than 600 points

IMPORTANT: Completing a typical semester’s (15 weeks) material in only 6 weeks is a FULL TIME job. Although the amount of time required will vary by student ability level, please be sure to commit no less than 1-2 hours daily reading Smartbook, answering Learnsmart questions, and working problems in CONNECT. Be sure to take advantage of online office hours as needed and contact your instructor right away if you are having difficulty. Asking questions is a great way to learn!

Course Objectives: This course provides an introduction to statistical methods common to social science applications. Topics include: design of experiments, sample surveys, descriptive statistics, linear regression and correlation, elementary probability theory, sampling distribution theory, and principles of inference, including one and two sample tests and confidence intervals for means and proportions, and Chi-square based inference.

By the end of this course, students should:

- Understand and remember the key ideas, concepts, and vocabulary of the subject. Examples in this course include the production of data through sample and experimental design, including the practical difficulties faced in designing samples and experiments that produce meaningful statistics; the description of sample data using graphics and numerical measures, regression and correlation, elementary probability theory, expected value, and inference for sample means, proportions, and 2-way tables. --> *This information will be discussed in the lecture/readings. You will apply and use them to complete online homework, and take exams.*
- Be able to communicate the meaning of descriptive and inferential statistics in writing using the terminology of the subject correctly, and so that an audience with a non-statistical background could understand. --> *Homework and exams will address these skills.*
- Be able to communicate orally by discussing statistical ideas and concepts with the instructor as well as other students.--> *Group discussions will contribute to this goal.*
- Be able to produce meaningful and appropriate graphical and numerical summaries of data. Be able to use statistical software or calculators to produce basic descriptive and inferential statistics.--> *Online homework will contribute to this goal.*

E-MAIL:

- Compose and send ALL email to instructor using UMBC email (bkegan1@umbc.edu)
- All messages should contain a subject line containing "STAT121: (reason for your email)"
- Email will be responded to within 24 hours, excluding weekends and holidays.
- Remember, once sent, e-mail is a permanent and official record of your concerns and a representation of yourself!

THURSDAY DISCUSSIONS:

- Students are encouraged to attend ALL face-to-face sessions. Be sure to view all related material in SMARTBOOK and CONNECT **before** class meetings.

SMARTBOOK ASSIGNMENTS:

- These assignments involve reading material and answering conceptual questions to assess your understanding of what you have read. They are graded based on completion and account for **10% of your grade**.
- All SMARTBOOK assignments are due by **WEDNESDAY 8/12 at 11:59pm**. To complete a smartbook assignment you must do both the READ and PRACTICE portions, and must be able to successfully answer ALL practice items. Each chapter has a recommended deadline which will coincide with topics covered on homework and exams due at the same time. It is *highly recommended* that you complete each section by the recommended deadline.
- A list of assigned sections and recommended due dates can be found in the *schedule of material included below*.

HOMEWORK (CONNECT):

- Homework assignments are completed online in **CONNECT** and will account for **20% of your grade**.
- A list of assigned homework and *recommended due dates* can be found below. In order to be prepared for exams you should complete homework by the recommended dates. However all homework must be completed no later than 8/12.
- Homework will sometimes require more advanced statistical calculations using your choice of “calculator” (Statcrunch, Excel, TI-83plus or similar). Instructions or help sheets will be provided for these calculations when feasible. These will be located on Blackboard under HOMEWORK HELP.

Online Exams:

- Two online exams will be administered through blackboard. They will make up **20% of your grade. Exam 1: 7/24 Exam 2: 8/7**
- You **must take** the online exams on the assigned date unless arrangements have been made in advance with the instructor. The online exams will open 6 days prior to the due date.
- Online exams have a time limit of 2 hours. Please plan to complete the exam in one session. If your attempt is interrupted by technical issues please contact your instructor **immediately** by phone/text for help (Note: If you start your exam after 10pm- this will not be an option!) Use CHROME or FIREFOX browsers only!
- Please plan ahead, makeups are only permitted in the event of unpredictable circumstances.
- Since these exams are completed outside of class on your own time, you may use your book and/or your notes during the exam. Please be sure to have a calculator and necessary formulas nearby and check the exam instructions for any needed reference tables(which will be provided as links) prior to opening the exam.

FINAL EXAM

- The FINAL EXAM will be cumulative and accounts for **50% of your grade**. It will be given **IN CLASS from 6:30-8:30pm on Thursday Aug 13th**. This is NOT an online exam.

LATE ASSIGNMENT/MAKEUP POLICY

- The homework due dates are *recommended* due dates to keep you on track with the material to take online exams and the final.
- If you cannot take an online exam on the scheduled date due to unusual circumstances please notify your instructor in advance to discuss an alternate date/time.
- Keep in mind that technical problems “at the 11th hour” are not an excuse for not completing your work on time. Please plan your time accordingly!

ACADEMIC INTEGRITY POLICY

By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal. To read the full Student Academic Conduct Policy, consult the UMBC Student Handbook, the Faculty Handbook, or the UMBC Policies section of the UMBC Directory.

THIS IS A GEP course. All general education mathematics courses:

- Have performance expectations demonstrating a level of mathematical maturity beyond Algebra II (high school intermediate algebra).
- Include development of analysis, synthesis and problem-solving skills, and introduce students to “ways of thinking” in mathematics.
- Introduce mathematical concepts and techniques that can be applied in further mathematics and/or other disciplines.
- Explore mathematical applications to other disciplines.

STAT 121 SCHEDULE OF MATERIAL SUMMER 2015 (S2)			
Start by	Finish by	Reading Assignment (Complete in Smartbook)	Homework (CONNECT)
7/6	7/9	Ch 1 Basic Ideas (1.1-1.4)	HW #1 7/9
7/10	7/12	Ch 2 Graphical Summaries (2.1-2.4)	HW #2 7/12
7/12	7/14	Ch 3 Numerical Summaries (3.1-3.3)	HW #3 7/14
7/15	7/17	Ch 11 Correlation and Regression (11.1-11.2)	HW #4 7/17
7/18	7/20	Ch 4 Probability (4.1-4.3)	HW #5 7/20
Online Exam #1 Due 7/24 (Fri)			
7/21	7/22	Ch 5 Discrete Prob. Dist. (5.1)	HW #6 7/25
7/23	7/25	Ch 6 Normal Distributions (6.1-6.2)	
7/26	7/27	Ch 6 Normal Distributions (6.3-6.4)	HW #7 7/27
7/28	7/30	Ch 7 Confidence Intervals (7.1-7.3)	HW #8 7/30
7/31	8/3	Ch 8 Hypothesis Tests (8.1,8.3,8.4)	HW #9 8/3
Online Exam #2 Due 8/7 (Fri)			
8/4	8/5	Ch 9 Inference on Two Samples ** (9.1,9.3 Means) ** Note: <i>Formulas are not as important in these sections. Pay attention to concepts more than calculations.</i>	HW#10 8/7
8/6	8/7	Ch 9 Inference on Two Samples ** (9.2 Proportions)	
8/8	8/10	Ch 10 Tests with Qualitative data (10.1-10.2)	HW #11 8/10
FINAL EXAM IN CLASS 8/13 6:30-8:30pm			