STATISTICS
MTH 120 Syllabus

Instructor Information:

Professor: Mrs. Catherine Moushon

Mathematics Department, Office D - 206 Elgin Community College 1700 Spartan Drive Elgin, IL 60123
E-mail: cmoushon0137@student.elgin.edu

Voice mail: **(847) 214 - 7500**

MTH 120 Course Description:

An introductory course in probability and statistics. The ability to handle basic algebraic manipulation is a prerequisite skill. The emphasis of the course is on the use rather than the derivation of the formulas and theorems. The aims of the course are to provide the student with a working knowledge of statistics in order to follow the statistics in the literature of his/her particular field and to provide an introduction for more advanced work in statistics. Major topics are: frequency distributions, sampling, testing hypotheses, regression, correlation, analysis of variance, chi-square, and probability. These and other topics are approached from a fundamental viewpoint to make the study both sound and useful.

Prerequisites:
Reading: Grade of C or better in RDG 091, an ACT Reading score of 18 or above, or an appropriate placement score.

Math: Grade of C or better in MTH 112; or appropriate placement test score and grade of C or better in MTH 097 or grade of C or better in two semesters of high school geometry or appropriate score on the geometry placement test

These pre-requisites may be checked at any time, it is your responsibility to have your pre-requisites documented with the ECC counseling center. Lack of pre-requisites may result in no credit for the course and the students may be subject to withdrawal. If you know that you lack the pre-requisites, it is your responsibility to withdraw yourself from this course and seek academic counseling advice.

Course Materials:

- At home computer with access to the internet
- E-mail address – it is required that you have an ECC student e-mail address in order to receive school communications for this course.

- Calculator – You will need to bring your own calculator for written exams. TI 84+ is recommended. TI 89 or higher and TI Nspire are not permitted on exams. Look under "tools" on Hawkes for calculator tools.
- Purchase Software, ECC bookstore or see ISBN options http://www.hawkeslearning.com
- Text: A virtual text is present on the software. For further reference, look for any basic level statistics text at bookstores or libraries. There is also an easy to read paperback available through the ECC bookstore called Statistics, A User Friendly Guide by Dr. Gerald C. Swanson, GreyHeron Press, .

Course Delivery: Online Instruction

The course is designed to be individual instruction suitable for motivated students with solid math foundations and good success in previous math courses. You should have a plan for when and where you will study every day. Chapters 1 – 3 are basic material and should be completed as quickly as possible. It will take more time to complete later chapters, plan accordingly. Each component has a deadline.

Please log in to Desire2Learn website daily for important postings and e-mail.

EXAMS: 100 points each. The exams will be modeled after the homework certification tests, and must be taken in order. Exams will be delivered by computer via WebTest.

When you are finished with chapters for exam, see Assignment Schedule, **you will report to ECC Testing Center in B-115 to take the written exams.** Plan to spend about 90 minutes at the testing center to check-in and complete exam, although there is no specified time limit other than the hours of the testing center. **Exams will be proctored on the ECC Campus.** Please bring a photo I.D.,your access code, a calculator, a pencil.

Testing Center telephone number: 847-214-7219 for days/hours

HOMEWORK/CERTIFY: 100 points total. There are 33 specific sections required @ 5 pts each, and you may certify up to 10 optional sections @ 5 points each for extra credit. Extra credit must be certified and registered by the final deadline. Homework certification must be registered into the online gradebook. Late homework is worth 4 points.

You will want to take notes as you read the text, and always visit the first link on top left for the formulas and certify rules!

1. *General Education learning outcomes*

1. **Quantitative Literacy Outcomes:**
   Students will demonstrate the ability to understand the language of mathematics and its real world applications by being able to:
   • perform symbolic manipulation, solve equations and systems of equations, and plot the graphs of functions; and
   • model real world application problems through identifying appropriate data, defining variables, and setting up equations and systems of equations.

2. **Critical Thinking Outcomes** Students will demonstrate critical thinking skills by being able to:
   • interpret and analyze information by categorizing, clarifying meaning in context, identifying ideas, detecting arguments and analyzing arguments into component elements;
   • evaluate ideas by assessing claims and arguments and justifying procedures;
   • draw inferences by questioning evidence, selecting alternatives, and drawing conclusions; and
   • demonstrate inductive and deductive reasoning skills.