Instructor: Nusrat Jahan  
Office: Roop 319  
Tel: 568-4074  
E-mail: jahannx@jmu.edu  

Office Hours: Monday 11:00 – 1:00 pm, TTh 11:00 – noon; and also by appointment.  

Class Time and Location: 9:30 am – 10:45 am; Tuesday: Roop 127, Thursday: Burruss 139.  

Text Book: Essential Statistics by David S. Moore. Publisher: W.H. Freeman &CO.  

Course Description: This is an introductory course covering both descriptive and inferential statistics. Topics that will be covered include averages, dispersion, graphical techniques, probability, random variables, sampling distributions, tests of hypotheses, estimation, correlation and regression, Chi-square test for goodness of fit and Chi-square tests for independence.  

Group Activity: Students will participate in groups of 4 to learn the course materials, do homework problems, and computer assignments. All students in a group are expected to work equally. In the event work has not been equally shared, there will be weighted grading.  

Computer Assignment: There will be 4 to 5 assignments during the semester. The assignments should be done using the Statistical Software Package SPSS during class on lab days (Thursdays), but the report will be due next class. For a list of JMU computer labs with IBM SPSS check https://remedy.jmu.edu/labs/onesoft.asp?softname=SPSS .  

Quizzes: There will be 5 to 6 quizzes during the semester. You get to drop the lowest quiz. Quiz problems will be similar to the recommended homework problems.  

Homework Problems: Recommended homework problems are available at the URL: http://educ.jmu.edu/~jahannx/ and also posted under “Assignments” in Blackboard.  

In Class Exams: Two in class exams will be given during the semester. Tentative in class exam dates are: 1st Exam: February 28, 2nd Exam: April 17  

No makeup on quizzes or exams unless you have a valid reason and notify the instructor in advance.  

Final Exam: Final exam is comprehensive. Exam day & time: will be announced later.  

Grading: The overall course grade is based on quizzes, group activity (homework & computer assignments), in class exams and a final exam in the following proportions.  

Lab & class participation: 15 (10+5) %,  
Quizzes: 20%,  
In class exams: 40%,  
Final: 25%.  

Grading Policy:  
98 & up : A+  
94 to 97 : A  
90 to 93: A–  
Below 60 : F  
88 to 89 : B+  
84 to 87 : B  
80 to 83: B–  
78 to 79 : C+  
74 to 77 : C  
70 to 72 : C–  
68 to 69 : D+  
64 to 67 : D  
60 to 63 : D–
**Calculators:** You are recommended to have a scientific calculator. It is your responsibility to understand your calculator. It would also be to your benefit to have your calculator in class so that you can practice some of the calculations as we cover materials in class.

**Tutoring Lab:** For help with the course, recommended problems and computer assignments, you are encouraged to go to the Science and Math Learning Center (Tel. 568-3379). The center is located in Roop 200. Check the web site http://www.jmu.edu/smlc/ for their working hours.

**Attendance Policy:** Missing classes is not good for your grade, most of my exam and quiz questions are from the lectures. Notice that missing classes doesn’t help borderline grades.

**Academic Integrity:** All students are expected to read and be familiar with the James Madison University’s Academic Integrity Code. All charges of cheating or other academic offenses will be taken with utmost seriousness.

**Important link:**  [www.jmu.edu/syllabus](http://www.jmu.edu/syllabus).
Addendum

Goals of the Course

1. To develop an understanding of the logical structure and style of mathematics by:
   a) Using reason in an orderly, cogent fashion.
   b) Writing clear, well organized solutions to problems.
Structure refers to the foundations of mathematics and to the techniques used to build on those foundations. Style refers to the clarity, elegance, efficiency, and precision desirable in mathematical expression.

2. To provide knowledge of the theory and application of statistics appropriate to the disciplines for which this is a required course.

3. To provide knowledge of the theory and application of statistics appropriate for an entry level statistics position in business, industry or government which requires collaboration with a statistician.

   (a) Collecting data, organizing data and making statistical inferences from data.
   (b) Using statistical methods of analyzing data.
   (c) Using probabilistic principles to model problems and develop solutions.
   (d) Using the principles of survey and experimental design for gathering data.
   (e) Being proficient in the use of computer software to solve problems and analyze data.
   (f) Performing statistical interpretations of graphs and numerical summaries of data.
   (g) Using confidence intervals and tests of significance in interpreting data.
   (h) Understanding the concept of sampling variability and its relevance in inference.

Nature of the Course Content

*MATH 220. Elementary Statistics.
3 credits. Offered fall and spring.

Descriptive statistics, frequency distributions, sampling, estimation and testing of hypotheses, regression, correlation and an introduction to statistical analysis using computers.

Prerequisite: MATH 155, MATH 156 or sufficient score on the Mathematics Placement Exam. Not open to majors in mathematics or statistics.