### COURSE OBJECTIVES:
The goal of the course is for the student to acquire a firm grasp of the concepts underlying the bio-statistical methods presented and for the student to become proficient in applying those methods to the analysis of data. This will enable the student to:

- Identify appropriate statistical designs for medical and public health research.
- Perform power analyses and select appropriate sample sizes for medical and public health studies.
- Conduct appropriate statistical analyses for a broad range of applications.
- Communicate the results of statistical studies both orally and in writing.

The skills acquired in this course enhance student’s qualification to pursue careers involving topics related to: public health, health care, biotechnology, environmental impact and biological research.

### COURSE DESCRIPTIONS:
Descriptive statistics, useful visual displays, common data patterns, testing for differences, applications of probability, designing experimental studies and measurement system evaluation.

The use of computer packages to perform analyses will be covered to further prepare the student for real world applications. The student will be required to select and analyze real life science data for a project.

### HOME WORK:
Homework will be assigned on a regular basis and will be due on the indicated date, usually a week after the date the homework is assigned. Late homework can only be accepted in emergencies. Answer keys will be available after the due date. There will be approximately 6 homework assignments. Some of the homework assignments may be computer assignments. Each homework assignment is worth 10 points. At the end of the semester, the lowest homework grade will be dropped before determining the homework average.

### EXAM POLICY:
There will be THREE tests (50 points each) given during the semester and also a TWO-HOUR COMPREHENSIVE FINAL EXAM (100 points) given at the end of the semester. NO tests will be dropped. Tests will be announced at least one week in advance. **NO EXTRA CREDIT WORK & NO MAKE-UP EXAM** will be given. However, you can take the tests a day or two in advance if you wish to. A grade of **ZERO** will be recorded if you **MISS** an exam. Final exam is mandatory. You may for no reason skip the final exam.

### GRADING:
Course Average = Total of 3 Tests + Homework Assignments + Final Exam
### Exam Rules:
All tests and the final exam are closed book and closed notes. A scientific calculator with statistical functions is required for the course. A formula sheet will be provided for the final exam.

### Comments:
**Cheating is not tolerated.** If a student is caught cheating, appropriate action will be taken within the Univ policy. GRU requires that all material submitted by a student in fulfilling his or her academic course of study must be the original work of the student. For this course, students are expected to strictly adhere to this policy for the Exams and homework assignments. Students are encouraged to discuss the homework assignments with the instructor. The material turned in to fulfill the homework assignment should be the individual student's work and not a copy of another student's work. Out of consideration of others, do not leave the room once class has started. If you need to leave early, please try to sit near the door and also let your instructor know before class begins that you will be leaving before class is dismissed. Bring your text book and calculator daily to class.

**Student Honor Code**
CHEATING IS NOT TOLERATED. If a student is caught cheating, appropriate action will be taken within the Univ policy. GRU requires that all material submitted by a student in fulfilling his or her academic course of study must be the original work of the student. For this course, students are expected to strictly adhere to this policy for the Exams and homework assignments. Students are encouraged to discuss the homework assignments with the instructor. The material turned in to fulfill the homework assignment should be the individual student's work and not a copy of another student's work. Out of consideration of others, do not leave the room once class has started. If you need to leave early, please try to sit near the door and also let your instructor know before class begins that you will be leaving before class is dismissed. Bring your text book and calculator daily to class.

### Withdrawal Policy:
If you withdraw before the midterm, a grade of W will be assigned. If you withdraw after the midterm, a grade of WF will be assigned. **Midterm is MAR 7.** You must initiate the withdrawal yourself! Do not expect me to drop you if you quit coming to class, you will be assigned an F.

### Attendance:
**I check for attendance daily.** If you miss more than 3 classes you will immediately be warned of the consequences. I would appreciate your notifying me if you have to miss class so that I am aware of your circumstances. Most of you will find that regular attendance is mandatory for satisfactory performance in the course. You are responsible for everything that is covered in class. **You are responsible for obtaining the material yourself that you missed because of absences. IT IS YOUR NICKEL. SPEND IT WISELY.**

Please do not bring any visitor to class. Please turn off your beepers while the class is in progress.

### Educational Philosophy
During the course work you will have an opportunity to learn material of substantive importance to you as a student. Simultaneously, you will have a variety of opportunities to enhance your professional skills by:
- applying the idea of the course to identifying and solving real world problems
- reading more perceptively
- writing more effectively
- working more creatively with others in organizational settings
- presenting your ideas more effectively in public forums

### How to prepare for this course
As this course involves critical thinking, you must (1) read each question carefully, (2) pay attention to the units of measurements (3) use proper notations and terminologies, (4) interpret the results, (5) draw diagrams whenever required, (6) keep 4 or more decimals in your calculations, (7) justify your answers with use of appropriate statistical measures, etc.

If you are having trouble, don't wait until things are going badly to contact me. This course continuously builds on previous material and you will have an easier time if you don't get behind.

Please obtain an email account with the university as you can access the course’s website and obtain all the handouts needed for this course. I can’t and won’t send emails to your personal addresses. I can send email only to your university email account.