Note:

Course content may be changed, term to term, without notice. The information below is provided as a guide for course selection and is not binding in any form, and should not be used to purchase course materials.
COURSE SYLLABUS
HLTH 501
BIOSTATISTICS

COURSE DESCRIPTION
The course prepares the student in the development and application of statistical reasoning and methods in addressing, analyzing and solving problems in public health; healthcare; and biomedical, clinical and population-based research.

RATIONALE
The purpose of this biostatistics course is to provide students in the Master of Public Health program the opportunity to attain statistical literacy. It is important for public health professionals to be able to understand, apply, and effectively articulate concepts pertaining to research design, data collection, data analysis, results reporting, statistical testing and interpretation. Additionally these professionals must be able to critically evaluate the public health scientific literature in light of the aforementioned concepts.

I. PREREQUISITES
For information regarding prerequisites for this course, please refer to the Academic Course Catalog.

II. REQUIRED RESOURCE PURCHASE
Click on the following link to view the required resource(s) for the term in which you are registered: http://bookstore.mbsdirect.net/liberty.htm

III. ADDITIONAL MATERIALS FOR LEARNING
A. Computer with basic audio/video output equipment
B. Internet access (broadband recommended)
C. Microsoft Word
   (Microsoft Office is available at a special discount to Liberty University students.)

IV. MEASURABLE LEARNING OUTCOMES
Upon successful completion of this course, the student will be able to:
A. Utilize hypothesis testing methods to correctly perform parametric and non-parametric inferential statistical procedures.
B. Critically analyze, evaluate, and correctly interpret the use of, and results from, descriptive and inferential statistical procedures.
C. Recognize and apply biostatistical research designs and methods to public health issues.
D. Critically evaluate the results of public health research from a Biblical Worldview.

V. COURSE REQUIREMENTS AND ASSIGNMENTS

A. Textbook readings, Bible readings, and presentations
B. Course Requirements Checklist
   After reading the Syllabus and Student Expectations, the student will complete the related checklist found in Module/Week 1.
C. Discussion Board Forums (3)
   The student will complete 3 Discussion Board Forums. Each discussion will consist of a thread and a minimum of 2 replies. The instructor is looking for very well written, substantial, thoughtful, and critical discussions.
D. Chapter Problems (8)
   Each week the student will complete 10–15 problems from the chapters that are from the assigned reading. This work will ensure the student understands the concepts he or she is reading and is able to apply those concepts to statistical problems.
E. Excel Exercises (7)
   The student will complete 7 excel exercises to be submitted by 11:59 p.m. (ET) on Sunday of the respective modules/weeks except for the final assignment. The final assignment will be due by 11:59 p.m. (ET) on Friday of Module/Week 8.
F. Case Study Analysis
   The student will be given a case study to evaluate. The student will use the provided rubric and evaluate/grade the case study.
G. Quizzes (2)
   The quizzes will be based on the chapter readings. The quizzes are open-book/open-notes and comprised of matching, essays, and short answers. Each student will have 90 minutes to complete each quiz, and the quizzes must be completed in one sitting.
H. Exams (2)
   The exams will be based on the chapter readings. The exams are open-book/open-notes and comprise of multiple-choice and short answers. The student will have 2.5 hours to complete each exam, and the exams must be completed in one sitting. The Final Exam will include all material presented during the term.

VI. COURSE GRADING AND POLICIES

A. Points
   Course Requirements Checklist 10
   Discussion Board Forums (3 at 25 pts ea) 75
Chapter Problems (8 at 30 pts ea) 240
Excel Exercises (7 at 10 pts ea) 70
Case Study Analysis 80
Quiz 1 (Modules 1–2) 75
Quiz 2 (Modules 3–6) 75
Midterm Exam (Modules 1–4) 185
Final Exam (Modules 1–8) 200
Total 1010

B. Scale

D- = 680–699   F = 679 and below

C. Late Assignment Policy

If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.

Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:

1. Late assignments submitted within one week of the due date will receive a 10% deduction.
2. Assignments submitted more than one week late will receive a 20% deduction.
3. Assignments submitted two weeks late or after the final date of the class will not be accepted.
4. Late Discussion Board threads or replies will not be accepted.

Special circumstances (e.g. death in the family, personal health issues) will be reviewed by the instructor on a case-by-case basis.

D. Tests/Exams

1. For timed tests/exams students are required to complete the exam within the assigned time. For students who exceed this time limit a penalty of 5 points will be deducted for each minute they exceed the assigned time limit.
2. Students must take the exam during the assigned module. A 5 % point deduction from the test’s final grade will be assigned for each day the test is late.
3. No test will be accepted seven (7) days after original due date without written approval from the instructor. This approval must be sought prior to tests due date.

E. Participation Policy
Students will read and abide by the Honor Code statement and other appropriate guidelines regarding cheating and plagiarism found in the Liberty Way. Students are expected to be prepared to actively participate in class discussions and the various exercises and activities as they occur. An open, curious, and honest attitude toward learning from others will facilitate development for all participants.

F. Professionalism Policy

Agreement or respectful disagreement with others in the class is expected. Learning to accurately communicate beliefs, attitudes, and emotions about important issues is a crucial part of both personal and professional development as a public health professional. Engaging in this process in an appropriate manner is expected.

The quality standard for work submitted is expected to be appropriate for graduate-level work. These expectations include excellent grammar and spelling, coherent paragraphs, precise APA style, and sufficient levels of organizational structure.

G. English as a Second Language

If English is a student’s second language, they should make use of the Graduate Writing Center and/or peer proofreading prior to submitting his/her work. Grading must be consistent for all students.

H. Other Policies

1. Academic Misconduct

Academic misconduct is strictly prohibited. Students should see the Graduate Catalog for specific definitions, penalties, and processes for reporting.

2. Drop/Add Policy

Consult the Graduate Catalog for drop/add policies.

3. Email Correspondence

Students are expected to communicate in a professional manner at all times whenever emailing classmates, instructors, or any employee of Liberty University. Because there is no accompanying tone of voice, facial expressions or body language, email communication is more easily misinterpreted than face-to-face. Emails should be courteous and well thought out to avoid knee-jerk responses that will be interpreted as “flaming” or sarcasm. Complaints should be communicated directly to the individual involved. Students should not send a blanket email to everyone in the class or to administrative personnel until they have communicated their concerns directly to the person involved and allowed them time to respond. Students should not post a message
to the class on Blackboard that is more appropriate for an individual. Offensive and/or suggestive language is not permitted.

4. FN Policy

Students who begin a course, but at some point in the semester cease participating and do not provide official notification to withdraw, will be assigned a grade of "FN" at the discretion of the instructor, dated to the student’s last date of academic activity. A grade of "FN" will be assigned when a student stops attending and/or participating in a class for a period of 21 consecutive days or longer. "FN" indicates that the student ceased attendance and failed to complete the course objectives. The last date of attendance will be based upon the last date that a student submitted an academic assignment (such as an examination, written paper or project, Discussion Board post, or other academic event).

I. Disability Assistance

Students with a documented disability may contact Liberty University Online’s Office of Disability Academic Support (ODAS) at LUOODAS@liberty.edu to make arrangements for academic accommodations. Further information can be found at www.liberty.edu/disabilitysupport
# COURSE SCHEDULE

## HLTH 501


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<th>Module/Week</th>
<th>Reading &amp; Study</th>
<th>Assignments</th>
<th>Points</th>
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**Total** 1010

DB = Discussion Board

**NOTE:** Each course week begins on Monday morning at 12:00 a.m. (ET) and ends on Sunday night at 11:59 p.m. (ET). The final week ends at 11:59 p.m. (ET) on Friday.