



**Marshall University Syllabus**  
**College of Science**  
**Department of Mathematics**

**Course:** STA 661 – Advanced Mathematical Statistics [Fall 2018]

**Instructor:** Dr. Alfred Akinsete

**Contact Information**

- Office: SH 523/524
- Office Hours: 11:00AM – 1:00PM on Tues. & Thurs. Any other time by appointment.
- Office Phone: 304.696.6010
- Marshall Email: [akinsete@marshall.edu](mailto:akinsete@marshall.edu)

**Required Texts and Materials**

Hogg, R. V., McKean, J. W., and Craig, A. T. (2013). *Introduction to Mathematical Statistics*, 7<sup>th</sup> Ed., Boston, MA: Pearson. ISBN – 10: 0-321-82467-9; ISBN – 13: 978-0-321-82467-7

**Technology and Technical Skill Requirements:** Many of you are taking this class face-to-face, so there is no technology requirement other than email communication and access to and use of the various tools in Blackboard. If you enrolled in the Virtual (VC) section, you may require a webcam and microphone to use Blackboard Collaborate Ultra for synchronous meetings. For the best experience, Blackboard recommends Google Chrome browser.

**Technology Assistance:** If you have technical problems, please contact one or more of the following:

- [Blackboard Support Center](http://marshall.edusupportcenter.com) (URL: <http://marshall.edusupportcenter.com>)
- Marshall [Information Technology \(IT\) Service Desk](http://www.marshall.edu/it/departments/it-service-desk/) (Help Desk) (URL: <http://www.marshall.edu/it/departments/it-service-desk/> )
  - Huntington: (304) 696-3200
  - [Email the IT Service Desk](mailto:itservicedesk@marshall.edu) ([itservicedesk@marshall.edu](mailto:itservicedesk@marshall.edu))

**Course Objectives/Outcomes**

The objective of this course is to consolidate on the knowledge of probability and statistics that

were acquired at the upper undergraduate or beginning graduate level in probability and statistics, and prepare students for the graduate level topics in probability and statistics.

At the end of the course, the student will

- have a good knowledge of probability and statistical distributions
- have a good knowledge of multivariate distributions and some special distribution functions
- learn the concepts of statistical inferences, limiting distributions and theory of estimation
- have a good knowledge of the tests of hypotheses

### Learner Outcomes

Course student learning outcomes	How students will practice each outcome in this course	How student achievement of each outcome will be assessed in this course
Students will have a good knowledge of probability and statistical distributions	In-class activities, intensive reading of relevant materials, active participation and contributions to discussions and in-class exercises	Homework assignments and exams.
Students will learn various techniques in evaluating and calculating probability and statistical problems	In-class activities, intensive reading of relevant materials, active participation and contributions to discussions and in-class exercises	Homework assignments and exams.
Students will have a good knowledge of inferential statistics, limiting distributions, theory of estimation and hypothesis testing	In-class activities, intensive reading of relevant materials, active participation and contributions to discussions and in-class exercises	Homework assignments and exams.

### Course Requirements/Due Dates

1. Pre-requisite requirement: Grade C or better in MTH 546, or by permission
2. Behavioral requirement: Students are advised to turn their cell phones and other voice generating devices off prior to entering the class. In the case where a student awaits any emergency call, the volume should be restricted and made personal. Please ensure that other students in the class are respected.

3. Final Exam Day: Tuesday, December 11, 2018 @ 08:00AM – 10:00PM. Venue is SH 509.

### **Attendance/Participation Policy**

Students are advised to attend all scheduled classes, and to arrive on time. It is the student's responsibility to find out what was discussed in a missed class. You should note that missing classes can be expected to significantly reduce your chances of success. Note also that it is the student's responsibility to present approved notice of any absence that would be excused under the terms and regulations stipulated by the university.

**Grading Policy, Exam Dates and Grading Scale.** All tests will be given during the regular class sessions. For makeup tests, please see the university's policy on excused absences.

The final grade will be based on the following components:

2 Tests	200 points
Homework Exercises	100 points
<u>Final Examination*</u>	<u>100 points</u> [Comprehensive]

**Total**                      **400 points**

\*Tuesday, December 11, 2018 @ 08:00AM – 10:00AM. Venue is SH 509

The semester grade will be based on the percentage of the 400 total possible points, using the following scale.

%	Point	Grade
90 -100%	[360, 400] --	A
80 - 89%	[320, 360) --	B
70 - 79%	[280, 320) --	C
60 - 69%	[240, 280) --	D
0 - 59%	[0, 240) --	F

### **University Policies**

(QM Standard 1.4) By enrolling in this course, you agree to the University Policies. Please read the full text of each policy (listed below) by going to [MU Academic Affairs: University Policies](http://www.marshall.edu/academic-affairs/policies/). (URL: <http://www.marshall.edu/academic-affairs/policies/>)

- Academic Dishonesty Policy
- Academic Dismissal Policy

- Academic Forgiveness Policy
- Academic Probation and Suspension Policy
- Affirmative Action Policy
- Dead Week Policy
- D/F Repeat Rule
- Excused Absence Policy for Undergraduates
- Inclement Weather Policy
- Sexual Harassment Policy
- Students with Disabilities (Policies and Procedures)
- University Computing Services Acceptable Use Policy

### Students with Disabilities

For University policies and the procedures for obtaining services, please go to [MU Academic Affairs: University Policies](http://www.marshall.edu/academic-affairs/policies/) and read the section, **Students with Disabilities**. (URL: <http://www.marshall.edu/academic-affairs/policies/>)

### Marshall University E-Mail Accounts

You must have and use your MU email account. Your personal email accounts will not be used for official communication with Marshall University programs and personnel. You may redirect your MU email to your own personal email account, but you must sign in to your MU account to do that. Marshall University uses Office 365 email. For more information, visit [Marshall IT: Office 365](https://www.marshall.edu/it/office365/) (URL <https://www.marshall.edu/it/office365/>).

### Course Schedule

The following is a tentative schedule on the coverage of the textbook:

Chapter	Duration (Week)	Ending Date (Thursdays, otherwise specified)
Chapter 1	2 [2]	August 30
Chapter 2	2 [4]	September 13
Chapter 3	2 [6]	September 27
Chapter 4	2 [8]	October 11
Exam #1:		October 11
Chapter 5	1 [9]	October 18
Chapter 6	2 [11]	November 1
Chapter 7	2 [13]	November 15
Exam #2		November 15
Chapter 8	2 [15]	December 6
Final Exam		Tuesday, December 11, 2018