



Marshall University
College of Science
School of Mathematics and Informatics
MTH 121B Syllabus

Course

MTH 121B – Concepts and Applications (CT) Section 105, CRN #2960

Course Description

Critical thinking course for non-science majors that develops quantitative reasoning skills. Topics include logical thinking, problem solving, linear modeling, statistics and probability, exponential and logarithmic modeling, and financial concepts.

Credits

4 credit hours

Prerequisites

PR: SAT Mathematics Before Mar. 16 240, or Placement Math 098, or SAT MATH SECTION SCORE 300, or ACT Math 12, or Placement Math After SP17 100.

Term / Year

Fall 2018

Class Meeting Days / Times

11:00 – 11:50 MTWR

Location

Corbly Hall 436

Academic Calendar

For beginning, ending, and add/drop dates, see the [Marshall University Academic Calendar](http://www.marshall.edu/calendar/academic) (URL: <http://www.marshall.edu/calendar/academic>).

Instructor

Laura Stapleton

Contact Information

Office: SH 720

Office Hours: 9 – 11 MW, 11 – 12 F. Other times by appointment.

Office Phone: 304-633-4206

Marshall Email: stapleto@marshall.edu

Required Texts, Additional Reading, and Other Materials

1. Jeffrey O. Bennett and William L. Briggs, Using and Understanding Mathematics, Sixth Edition. ISBN# 9780321914620.
2. Students are required to be able to use a scientific or graphing calculator for the course.
3. Access to a computer with Internet access to reach MuOnline/Blackboard.

University Policies

By enrolling in this course, you agree to the University Policies. Please read the full text of each policy (listed below) by going to [Academic Affairs: Marshall 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

Course Student Learning Outcomes

The table below shows the following relationships: How each student learning outcome will be practiced and assessed in the course.

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 analyze real-world problems quantitatively, formulate plausible estimates, assess the validity of visual representations of quantitative information, and differentiate valid from questionable statistical conclusions. Students will apply the quantitative thinking skills that they learn to analyze problems dealing with finance and exponential growth and decay.	In-class activities, homework, and assignments, etc.	Exams and projects
Using metacognitive thinking , students will evaluate the effectiveness of their project plan or strategy to determine the degree of their improvement in knowledge and skills.	In-class activities, homework, and assignments, etc.	Exams and projects
When students apply integrative thinking , they will make connections and transfer skills and learning among varied disciplines, domains of thinking, experiences, and situations.	In-class activities, homework, and assignments, etc.	Exams and projects
Students will formulate focused questions and hypotheses, evaluate existing knowledge, collect and analyze data, and draw justifiable conclusions as they apply inquiry-based thinking .	In-class activities, homework, and assignments, etc.	Exams and projects
Students will demonstrate their communication fluency skills to present their research to specific audiences. Each student will work on short projects on a variety of topics to be determined by the instructor.	In-class activities, homework, and assignments, etc.	Projects and presentations.

Grading Policy

A student's grade is assessed by the following percentages earned from each of the categories below:

Exams (3 @ 16.7%)	50%
Final Exam	15%
Project	15%
Quizzes	5%
Other Assignments	10%
Attendance	5%
	100 %

PROJECT: This semester you will be creating a critical thinking project. It will be ongoing throughout the semester. You will present your project to the class in a short video.

CLASSROOM ETIQUETTE: During class, cell phones must be turned off and out of sight. Please make the instructor aware ahead of time if you need access to these devices. If I determine that cell phones or other electronic devices are becoming a problem during class time, I will give the class a quiz over all recent topics daily until cell phone use is no longer an issue. If the issue persists, the person will be asked to leave the class. All conversations during class time should be on topic. If personal conversations become distracting to the class or myself, those students will be asked to leave the class to continue their conversations elsewhere.

EXAMS: Students will take three in-class exams covering approximately five - six sections each from the textbook. See the Calendar for approximate exam dates. You cannot use a cell phone calculator on exams/final.

FINAL EXAM: Students must take the MTH 121B Comprehensive Final Exam in order to complete the class and receive a letter grade. The final will be comprehensive and will be administered during exam week on Tuesday, December 11, 2018 at 10:15 am – 12:15 pm in our classroom.

Attendance

Students are expected to attend each class. Attendance is taken by a daily "sign-in" sheet. If you do not sign, then you will be counted as absent; and this "absence" cannot be corrected after the class has dispersed for the day. Students must obtain a University excused absences in order to receive the opportunity to

turn in work past the due date or take a make-up test. Makeup exams will be given to students who have an excused absence for a test either outside of class time or during the last week of the semester at the convenience of the instructor.

Missing assignments and tests will be recorded in the gradebook as a 0.

- Excused absences – Absences, which last one or two days can be turned in to me. Any absence three days or longer must be submitted to the **Dean of Student Affairs (Office: Memorial Student Center 2W38)**. Examples of excused absences are: death in the family, university sport or activity absence, illness with a physician's excuse, etc. Once the excuse is approved, then the missing material can be submitted for full credit.
- **Unexcused absences** - If you do not have a university excused absence, any incomplete material will not be re-opened and will earn a grade of 0.

Tutoring

The Department of Mathematics offers a free tutoring lab for Marshall students enrolled in mathematics courses in Smith Hall 625. The tutors can help with all classes up to MTH 231. No appointment is necessary; just stop in and ask for a tutor. More information regarding the Tutoring center can be found at:

<https://www.marshall.edu/math/tutoring/>

The University College Tutoring Center in the Communications Building (second floor Smith Hall) has tutors who are available for free, by appointment. Additional information can be found at <http://www.marshall.edu/wpmu/uc/tutoring-services>

Course Schedule

Week	Sections and Assignments – All Dates are Subject to Change
Week of 08/20/18	2A, Project Part 1
Week of 08/27/18	Project Part 2, 2B, Exponent Review
Week of 09/03/18	3A, 3B, Geo Scavenger Hunt Assignment
Week of 09/10/18	3C, 3D
Week of 09/17/18	Exam 1 , 4A, Project Part 3
Week of 09/24/18	4B, 4C
Week of 10/01/18	4D, 4E, Project Part 4
Week of 10/08/18	5C and Exam 2
Week of 10/15/18	6A, 6B, Mean, Median, & Mode Discussion Forum

Week of 10/22/18	6C, 7A, Coin Toss Assignment
Week of 10/29/18	7B, 7C, Probability Discussion Forum
Week of 11/05/18	7E, Project Part 5
Week of 11/12/18	Exam 3, 8A
Week of 11/19/18	Fall Break – No Classes
Week of 11/26/18	8B, Project Part 6
Week of 12/03/18	1A, 1B
Week of 12/10/18	Final Exam