**Marshall University**

**Syllabus**

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| Course Title/Number | **MTH 121B – 102 Concepts and Applications CRN: 3106** |
| Semester/Year | Fall 2015 |
| Days/Time | 9:00 – 9:50 MTWR |
| Location | CH 436 |
| Instructor | Laura L. Stapleton |
| Office | Smith Hall 720 |
| Phone | 304-696-4334 |
| E-Mail | [stapleto@marshall.edu](mailto:stapleto@marshall.edu) |
| Office/Hours | 1:00 – 2:00 M (**in Smith Hall 620**) and T (**in Smith Hall 720**) |
| University Policies | By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to [www.marshall.edu/academic-affairs](http://www.marshall.edu/academic-affairs) and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to <http://www.marshall.edu/academic-affairs/?page_id=802>  Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment |

**Course Description: From Catalog**

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| **A quantitative reasoning skills course for non-science majors, this course meets a Core I/Critical Thinking requirement and a Core II/Social Sciences requirement. Topics include logical thinking, problem solving strategies, beginning statistics and probability, exponential and logarithms modeling, formula use, with basic algebra review. 4 hrs. PR: ACT Math 17 - 18, OR permission of University College.** |

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

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| **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 solve real-world problems using unit analysis. | Homework, Group work, in-class discussions, Chapter reviews, Critical thinking activities | Homework, Critical Thinking activities and exams |
| Students will interpret and analyze numbers that they will encounter in the real world. | Homework, Group work, in-class discussions, Chapter reviews, Critical thinking activities | Homework, Critical Thinking activities and exams |
| Students will demonstrate a proficiency in utilizing formulas from basic financial concepts such as loan payments, credit cards, and mortgages. | Homework, Group work, in-class discussions, Chapter reviews, Critical thinking activities | Homework, Critical Thinking activities and exams |
| Students will interpret and analyze statistical studies. | Homework, Group work, in-class discussions, Chapter reviews, Critical thinking activities | Homework, Critical Thinking activities and exams |
| Students will analyze and interpret statistical concepts such as measures of central tendency, measures of variation, and normal distributions. | Homework, Group work, in-class discussions, Chapter reviews, Critical thinking activities | Homework, Critical Thinking activities and exams |
| Students will compare linear growth and exponential growth rates and their real-world applications. | Homework, Group work, in-class discussions, Chapter reviews, Critical thinking activities | Homework, Critical Thinking activities and exams |
| Students will demonstrate a proficiency in the fundamentals of probability including expected value. | Homework, Group work, in-class discussions, Chapter reviews, Critical thinking activities | Homework, Critical Thinking activities and exams |
| Students will demonstrate an ability to analyze arguments and construct fallacies. | Homework, Group work, in-class discussions, Chapter reviews, Critical thinking activities | Homework, Critical Thinking activities and exams |

**Required Texts, Additional Reading, and Other Materials**

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| 1. Jeffrey O. Bennett and William L. Briggs, **Using and Understanding Mathematics**, Sixth Edition. ISBN# 9780321706065. 2. Scientific Calculator 3. Access to a computer with Internet Access |

**Course Requirements / Due Dates**

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| 1. **Exam 1** (Chapters 2 – 3) week of **September 21, 2015**. 2. **Exam 2** (Chapters 4 – 5) week of **October 12, 2015**. 3. **Exam 3** (Chapters 6 – 7) week of **November 9, 2015**. 4. **Module 4** (Chapters 1 and 8) week of **November 30, 2015**. 5. The **Final** (Chapters 1 – 8) is to be completed by **December 11, 2015 at 10:15 – 12:15.**   **Note: All dates (except the Final) are tentative and subject to change**. |

**Attendance Policy**

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| **ATTENDANCE:** Students are expected to attend each class. Attendance is taken by daily “sign-in” sheets. 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. Unexcused absences from **four classes** will result in a reduction of one letter grade for the semester; unexcused absences from **six or more** classes will result in an F.  To obtain an excused absence, please go to the Dean of Students’ Office in the MSC. Students must notify the instructor by phone or e-mail prior to an exam if they cannot take a scheduled exam. Students must present a serious reason for missing any exam (illness with a doctor’s excuse, death in the family, university excused absence, etc.). Makeup exams will be given to students during the last week of the semester at the convenience of the instructor. |

**Grading Policy**

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| A student’s grade is assessed by the following percentages earned from each of the categories below:  Each exam (**four in-class** **exams**) will be worth 10% of the semester grade. **Critical Thinking Activities** will be worth 15% of the semester grade. **Basic skills assessments** will count as 15% of the semester grade. **Attendance** will count as 5% of the semester grade. **Participation** will count for 5% of the semester grade. The **Final Exam** will count for 20% of the grade.   |  |  | | --- | --- | | **Category** | **% of Grade** | | In-Class Exams (4 at 15%) | 60% | | Attendance | 5% | | Basic Skills Assessments | 10% | | CT Activities | 10% | | Comprehensive Final | 15% |   The Mathematics Department uses the following grade scale for its classes:   |  |  |  | | --- | --- | --- | | 90 – 100 | = | A | | 80 – 89 | = | B | | 70 – 79 | = | C | | 60 - 69 | = | D | | Below 59 | = | F | |

**CRITICAL THINKING ACTIVITIES:** Students will complete Five Critical Thinking (CT) Activities. Each project should contain at least two pages of text, along with any supporting tables and graphs. Students will submit a paper copy for hand grading AND possibly an electronic version to be checked for plagiarism.

**CLASSROOM ETIQUETTE:** During class, cell phones must be turned off and out of sight**. *Any student seen using, viewing or texting on their cell phone will result in a pop quiz for the entire class.*** Please make the instructor aware ahead of time if you need access to these devices.

**FINAL EXAM:** The final will be comprehensive and will be administered during exam week on Dec 11, 2015 at 8:00 am – 10:00 am in our classroom.

**Tutoring Policy**

Marshall University provides multiple options for free on-campus tutoring. It is the student’s responsibility to take advantage of these facilities in addition to utilizing office hours.

The Mathematics Department tutoring lab is located in in Smith Music Hall 115. The current schedule can be found at www.marshall.edu/math/tutoringlab.asp. Schedules for the new semester are usually posted during the second week of classes.

The University College has a tutoring lab on the first floor of Laidley Hall. Information regarding this facility can be found at http://www.marshall.edu/wpmu/uc/tutoring-services

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  + Frequently Asked Questions
  + System Requirements
  + Other Helpful “getting started” info.
* Or, visit their 24/7 Technical Support site at <http://247pearsoned.custhelp.com>.

**SCHEDULE (Subject to Change):**

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| **Week of:** | **Topic(s) Covered** | **Week of:** | **Topic(s) Covered** |
| **Aug 24** | Syllabus Review, Basic Skills Material and **Quiz** | **Oct 19** | 6A, Statistics Review and **Quiz**, 6B |
| **Aug 31** | Fraction Review and **Quiz** | **Oct 26** | 6C, 7A, Probability Review and **Quiz** |
| **Sep 7** | 2A, 2B, Exponent Review and **Quiz** | **Nov 2** | 7B, 7E |
| **Sep 14** | 3A, 3B, Scientific Notation Review and **Quiz** | **Nov 9** | **Exam 3**, 8A |
| **Sep 21** | 3C, **Exam 1** | **Nov 16** | 8B, Logarithm Review and **Quiz**, 1B |
| **Sep 28** | 4B, Equation Review Material and **Quiz**, 4C | **Nov 23** | **Thanksgiving Break – No Classes** |
| **Oct 5** | 4D, 4E | **Nov 30** | **Exam 4** and Review for Final |
| **Oct 12** | 5C, **Exam 2** | **On Dec 11** | Final (8:00am – 10:00am) |