**Marshall University**

**MTH 121B – 105 Syllabus Fall 2017**

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| **Course Title/Number** | Concepts & Applications Extended (CT) |
| **Semester/Year** | Fall 2017 |
| **Section/CRN** | 105/3100 |
| **Days/Time** | MTWR 10:00 – 10:50 |
| **Location** | CH 436 |
| **Instructor** | Mary Crytzer |
| **Office** | SH 741A |
| **Phone** | 304-696-7245 |
| **E-Mail** | mary.crytzer@marshall.edu or MUOnline mail tool |
| **Office Hours** | Monday 11:00-1:00, Wednesday 11:00-1:00, 2:00-3:00 other hours by appt. |

**University Policies**

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| By enrolling in this course, you agree to the University Policies listed below. You can access the policies directly by going to [www.marshall.edu/academic-affairs/policies/](http://www.marshall.edu/academic-affairs/policies/).  |

**Course Description: From Catalog**

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| A quantitative reasoning skills course for non-science majors. Topics include logical thinking, problem solving strategies, beginning statistics and probability, exponential and logarithms modeling, formula use, with basic algebra review. **4 hrs**. |

**The table below shows the following relationships: How each student learning outcome 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 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, and logarithmic models. | Students will attend class, participate in interactive lectures and group discussions, complete homework and low-stakes writing, ask questions, and complete project rough drafts. | Quizzes, Exams, and Cumulative Project/Paper |
| 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. | Students will attend class, participate in interactive lectures and group discussions, complete homework and low-stakes writing, ask questions, and complete project rough drafts. | Quizzes, Exams, and Cumulative Project/Paper |
| When students apply **integrative thinking**, they will make connections and transfer skills and learning among varied disciplines, domains of thinking, experiences, and situations.  | Students will attend class, participate in interactive lectures and group discussions, complete homework and low-stakes writing, ask questions, and complete project rough drafts. | Quizzes, Exams, and Cumulative Project/Paper |
| Students will formulate focused questions and hypotheses, evaluate existing knowledge, collect and analyze data, and draw justifiable conclusions as they apply **inquiry-based thinking**. | Students will attend class, participate in interactive lectures and group discussions, complete homework and low-stakes writing, ask questions, and complete project rough drafts. | Quizzes, Exams, and Cumulative Project/Paper |
| Communicate written Students will demonstrate their **communication fluency** skills to present their research to specific audiences. Each student will work on five short projects on a variety of topics to be determined by the instructor.using appropriate notation and explanation in English. | Students will attend class, participate in interactive lectures and group discussions, complete homework and low-stakes writing, ask questions, and complete project rough drafts. | Quizzes, Exams, and Cumulative Project/Paper |

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

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| * **Textbook** – Using and Understanding Mathematics: A Quantitative Reasoning Approach by Jeffrey Bennett and William Briggs, 6th Ed.
* **Scientific calculator** – I suggest a TI-30 or equivalent. A graphing calculator or internet-connected device will NOT be permitted on exams.
* **Computer** – Students must have access to a computer and internet in order to create the critical thinking project and to access supplemental course materials using MUOnline/BlackBoard.
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**Course Requirements/Due Dates**

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| Students will practice in class with assignments and quizzes, will complete homework assignments from the textbook, and will complete in class tests and the final exam. A course schedule will be provided to students.**Skills Quizzes**: Students will take 7-10 quizzes that focus on specific arithmetic and algebraic topics that are useful for the course material.**Homework**: Homework is assigned for every section discussed in class from the textbook. **Classwork**: Students will complete in-class assignments and activities throughout the semester. These assignments will be graded based upon effort and completion.**Project**: Students will complete a Critical Thinking Project/Paper that will demonstrate their grasp of the student learning outcomes, and will submit drafts during the semester. Students are required to submit an artifact.**Exams**: There will be four in-class exams. The course schedule lists the tentative dates for exams. Students will also take a comprehensive final exam. If you know ahead of time that you will be absent on the day of an exam, please let the instructor know so that you can make arrangements. Make-up exams will only be given in the event of a university-excused absence. |

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**Grading Policy**

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| Since there are multiple ways in which students learn, knowledge and understanding will be assessed with multiple tools. A student’s grade is assessed by the number of points earned in each of the following categories:

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| **Category** | **% of Grade** |  | A | 90-100% |
| Skills Quizzes | 10% |  | B | 80-89% |
| Activities/Homework | 10% |  | C | 70-79% |
| Project/Paper (rough & final drafts) | 20% |  | D | 60-69% |
| Semester Exams (4 exams, 10% each) | 40% |  | F | 0-59% |
| Comprehensive Final Exam\* | 20% | \*Students must take the MTH 121B final exam to complete the course and receive a grade. |
| **Total:** | **100%** |

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**Attendance Policy**

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| **Students are required to attend each class**. **Attendance is necessary for the successful completion of this course.** Only **University excused absences** warrant missed assignments to be turned in past the original due date or an opportunity to take a make-up test. Missing assignments and tests will be recorded in the gradebook as a 0. Consult your handbook regarding university excused absences. |

**Tutoring**

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| Math Department Tutoring Lab Location: **Smith Hall 625**Hours: **TBA** |