I. BASIC COURSE INFORMATION:

A. Course Description

MATH 0325 – Fundamentals of Mathematical Reasoning.

This course surveys a variety of mathematical topics needed to prepare students for college level statistics or quantitative reasoning or for algebra-based courses. Topics include: numeracy with an emphasis on estimation and fluency with large numbers; evaluating expressions and formulas; rates, ratios, and proportions; percentages; solving equations; linear models; data interpretations including graphs and tables; verbal, algebraic and graphical representations of functions; exponential models. This course carries institutional credit but will not transfer and will not be used to meet degree requirements. Prerequisite: Placement by testing or satisfactory completion of MATH 0310.

B. Intended Audience:

Students needing to strengthen their mathematics background before taking college level mathematics courses. (This course fulfills the prerequisite requirement for MATH1332 Contemporary Mathematics or MATH1342 Elementary Statistics only; it does NOT fulfill the requirement for College Algebra or Math for Business and Social Sciences.)

C. Instructor: Paul Draper
Office Location: S202-B
Office Hours: 9:30 AM - 10:30 AM, 11:00 AM - 12:00 PM
Phone: 936-633-5468
E-mail Address: pdraper@angelina.edu

II. INTENDED STUDENT OUTCOMES:

A. Core Objectives Required for this Course

1. Critical Thinking: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

2. Communication: to include effective development, interpretation and expression of ideas through written, oral and visual communication

3. Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
B. Course Learning Outcomes for all Sections
1. Perform basic operations and solve linear equations involving integers.
2. Convert values among fractions, decimals, and percents.
3. Recognize and solve proportion problems.
4. Use geometric formulas to determine areas and volumes of various figures.

Learning Goals - This course is a quantitative reasoning course. This means you will learn to use, understand, and communicate about quantitative information.

The course has five goals:
1. Communication goal: You will interpret and communicate quantitative information and mathematical and statistical concepts using language appropriate to the context and intended audience.
2. Problem Solving goal: You will make sense of problems, develop strategies to find solutions, and persevere in solving them.
3. Reasoning goal: You will reason, model, and make decisions with mathematical, statistical, and quantitative information.
4. Evaluation goal: You will critique and evaluate quantitative arguments that utilize mathematical, statistical, and quantitative information.
5. Technology goal: You will use appropriate technology in a given context.

III. ASSESSMENT MEASURES
A. Assessments for the Core Objectives:
The core objectives will be assessed with test questions during the semester. An appropriate rubric will be used as suitable for the objectives.

B. Assessments for Course Learning Outcomes
All course learning outcomes for this class will be assessed with test questions during the semester. Appropriate rubrics will be used.

IV. INSTRUCTIONAL PROCEDURES:
This course is taught using a combination of lectures, discussions, and practice exercises. The amount of time spent using any one technique will vary from lesson to lesson as determined to be most appropriate by the instructor.

V. COURSE REQUIREMENTS AND POLICIES:
A. Required Textbooks and Recommended Readings, Materials and Equipment
1. NMP workbook – Math0325 Foundations Course (available in Angelina College bookstore)
2. MyLabsPlus Access Code, an on-line, tutorial, homework and assessment tool
   NOTE: Students must purchase the Pearson’s MyLabsPlus / Texas. Only version with ISBN# 1323396489. Other MLP login codes WILL NOT work.
3. A calculator (not part of a cellphone or similar device) is required.
   It may be a four-function calculator, a scientific calculator or a graphing calculator.
4. One three-ring binder. (Use for this class only.)
5. Loose-leaf paper.
B. **Course Policies** – This course conforms to the policies of Angelina College as stated in the Angelina College Handbook.

1. **Academic Assistance** – If you have a disability (as cited in Section 504 of the Rehabilitation Act of 1973 or Title II of the Americans with Disabilities Act of 1990) that may affect your participation in this class, you should see Sellestine Hunt Associate Dean of Student Services, Student Center, Room 200. At a post-secondary institution, you must self-identify as a person with a disability; Ms. Hunt will assist you with the necessary information to do so. To report any complaints of discrimination related to disability, you should contact Mr. Steve Hudman, Dean of Student Affairs, in Student Center, Room 101, (936) 633-5292 or by email shudman@angelina.edu.

2. **Attendance** – Attendance is required as per Angelina College Policy and will be recorded every day. Any student with three (3) consecutive absences or four (4) cumulative absences may be dropped from the class. Three (3) tardies will equate to one (1) absence. Records will be turned in to the academic dean at the end of the semester. Do not assume that non-attendance in class will always result in an instructor drop. You must officially drop a class or risk receiving an F. A student may also be dropped due to lack of participation.

3. **Additional Policies Established by the Instructor**
   a. Class participation (individually and via assigned groups) is mandatory.
   b. **Students must have their instructor's written permission to use any type of recording device.**
   c. **CELL PHONES OR OTHER ELECTRONIC DEVICES**
      Pagers, cellular phones, earphones, and similar electronic devices should be silent or off and out of sight during the entire class period. Failure to follow this rule may result in the student being asked to leave the classroom. Students may not have access to cell phones during quizzes and/or tests. Failure to follow this rule may result in the student receiving a zero for the quiz or test. If a student receives a zero on a test due to this rule, the zero will not be replaced by the final exam score.
   d. Cheating on tests is not tolerated as per Angelina College policy and may result in expulsion from the course. Plagiarism is not tolerated and will result in a zero for any assignment in which it is detected.
   e. Visitors are not allowed in classrooms as stated in the College’s policy.
   f. Technical issues do not excuse late homework. Please contact Pearson on their 24/7 helpline (888)883-1299, or M-F from 8:00-5:00 you may contact our lab specialist, Zach Powell at zpowell@angelina.edu.

4. **STUDENT CONDUCT**
   A positive environment for learning will be maintained by students being courteous to each other and to the instructor. Eating, drinking, sleeping, and distracting conversations during lecture will not be allowed. Repeated tardiness will result in warning; if continued this will result in further action depending on upon seriousness of problem. Regular attendance is also expected as per college policy.
V. Course Outline ("The topics for the Foundations of Mathematics Reasoning course are"…)

1. Numeracy: Students will develop number sense and the ability to apply concepts of numeracy to investigate and describe quantitative relationships and solve real-world problems in a variety of contexts.

2. Proportional Reasoning: Students will use proportional reasoning to solve problems that require ratios, rates, proportions, and scaling.

3. Algebraic Competence, Reasoning, and Modeling: Students will transition from specific and numeric to general and abstract reasoning using the language and structure of algebra to investigate, represent, and solve problems.

4. Assessing Risk (Probabilistic Reasoning to Assess Risk): Students will understand and critically evaluate statements involving risk and arguments based on probability that appear in the popular media, especially in presenting medical information.

5. Personal Finance (Quantitative Reasoning in Personal Finance): Students will understand, interpret and make decisions based on financial information that is commonly presented to consumers.

6. Civic Life (Quantitative Reasoning in Civic Life): Students will understand that quantitative information presented in the media and by other entities can sometimes be useful and sometimes be misleading.

Homework Schedule for Spring 2017—may be altered depending on progress
The instructor will provide schedule sheets for required preview and practice assignments during the semester.

NOTE: April 3rd is the last day to drop with a “W”.

VII. EVALUATION AND GRADING
1. The course grade will be determined by taking the total points earned dividing by the total possible number of points a student can earn, 750 points. Grades will be round to the nearest unit, and assigned a letter grade based on the following scale

<table>
<thead>
<tr>
<th>Average Grade</th>
<th>Letter Grade</th>
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</thead>
<tbody>
<tr>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>B</td>
</tr>
<tr>
<td>70-79</td>
<td>C</td>
</tr>
<tr>
<td>60-69</td>
<td>D or IP*</td>
</tr>
<tr>
<td>50 &amp; below</td>
<td>F or IP*</td>
</tr>
</tbody>
</table>

**"IP" means in progress and the course must be repeated. For the instructor to consider whether or not to record a grade of IP, the student must show a consistent effort to pass the class with regular attendance, doing homework, and taking exams (including the final exam).
2. The grade for this course will be based on:
   a) **Homework (200 points)** (200 points = 26.7% of your grade)
   Homework and preview assignments will be completed online. Homework grades may include print checks, points for completion, points for correctness, classroom participation, discussion participation, written assignments, as well as the online platform homework and pre-assignment activities.

   Homework is separated into two parts.

   1) **Practice Assignments**: Homework over the lesson tasks and activities being completed. Due next class day **by start of class**. There will be a daily 10% penalty for practice assignment work completed after the due date (up to 5 additional days). The practice assignment grade will be a zero if not completed within 5 days of the due date.

   2) **Preview Assignments**: Homework to prepare for what is coming up for the next class. **Due next class day by start of class**. There will be a daily 10% penalty for preview assignment work completed after the due date (up to 2 additional days). The preview assignment grade will be a zero if not completed within 2 days of the due date.

   Actual due dates can be found in MyLabsPlus.

   NOTE: Students must complete the preview assignment **BEFORE** having access to the corresponding practice assignment. Failure to complete a preview assignment within the allowed time will result in a grade of zero for its corresponding practice assignment.

   **No assignments will be accepted after the due date.**

   b) **Exams (100 points each)** (400 points = 53.3% of your grade)
   Four comprehensive exams will be given this semester. You are required to show your work on exams. If you do not show your work, then you may not receive credit for an answer. Also, partial credit will be given; the more work you show, the more credit you may receive.

   **No make-up exams** will be offered. The grade on the final exam can replace the lowest exam grade, including the grade from a missed exam.

   c) **Final Exam (150 points)** (150 points = 20% of your grade)
   The final will be a comprehensive exam. A comprehensive final exam is mandatory for all students.

   The instructor may modify the provisions of the syllabus to meet individual class needs by informing the class in advance as to the changes being made.