Math 122-Maymester
Quantitative Skills and Reasoning

Maymester 2022 (2 credits)

Required Materials:
1) ALEKS access code: The student can purchase the access code through the course website or from the campus bookstore. **Cost of ALEKS access code through the WVU Bookstore is $132**
2) Students are required to have a working internal or external webcam, microphone & speakers. Students will not be allowed to test until they have all three.
3) Examity is an online proctoring service for your exams. This will cost approximately per exam. You will have two exams.

Catalog Description: An introductory study of quantitative and reasoning skills needed for success in science, technology, engineering, and mathematics.

Prerequisite: Enrollment is restricted to students who have an ACT/SAT Math or equivalent assessment score within the range specified on the WVU Math Departments website.

Course Overview: This course is a review of quantitative skills, including the arithmetic and algebra needed for science, technology, engineering and mathematics related disciplines and as a prerequisite for higher-level mathematics courses. Students in majors that do not require college algebra or calculus should consider MATH 121 or STAT 111 instead.

Expected Learning outcomes:
Upon successful completion of Math 122, students will be able to:
- Perform basic arithmetic operations with integers, rational and real numbers including multiplication, division, addition and subtraction
- Perform basic operations using exponential, logarithmic and radical expressions
- Interpret word problems and examples and develop numerical representations of the quantities being expressed
- Perform basic algebraic analyses using expressions involving unknown quantities
- Perform operations with linear, quadratic and higher order polynomial expressions including rational expressions to solve for unknowns
*This syllabus is subject to change at the coordinator’s discretion. It is critical that you check your MIX email/eCampus for updates.

**All times are in EST.**

Cost of course materials highlighted in yellow.

- Interpret word problems and examples and develop algebraic representations of the quantities being expressed

In addition to the learning outcomes, courses under the Institute for Math Learning at WVU share a common set of goals. They include:

- **CONCEPTUAL UNDERSTANDING**: rather than just rote memorization of algorithms
- **MULTIPLE APPROACHES**: to examine problems from analytical, geometric and numeric perspectives, to make judgments about the appropriateness of the choice of formal or approximate methods of solution
- **TECHNOLOGY AS A TOOL**: use technology as an integral part of the process of formulation, solution, and communication, to gain experience in selecting the proper tool for a given problem
- **ACTIVE STUDENT LEARNING**: to engage in the exploration and discovery of concepts and to learn to work cooperatively to solve problems
- **COMMUNICATION OF IDEAS**: to demonstrate understanding by explaining in written or oral form the meanings and applications of concepts
- **PROBLEM SOLVING**: gain experience as a problem solver, to analyze problems in an organized manner
- **APPLICATIONS**: use mathematics to model and solve problems

**Evaluation:**

**Exams**: Two exams will be given during the summer semester. Testing policies are posted on eCampus. Students must familiarize themselves with these policies and procedures prior to exams.

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<thead>
<tr>
<th>Exam</th>
<th>Topics to Master</th>
<th>Date</th>
<th>Percentage of Final Grade</th>
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<tbody>
<tr>
<td>IA</td>
<td></td>
<td>Open / Close dates TBA</td>
<td></td>
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<tr>
<td>Midterm</td>
<td>228 topics (50%)</td>
<td>Open / Close dates TBA</td>
<td>30%</td>
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<table>
<thead>
<tr>
<th>Final Exam</th>
<th>456 topics (100%)</th>
<th>Open / Close dates TBA</th>
<th>50%</th>
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**Topic Goals:** 10% of the final grade. Students are expected to complete a minimum number of topics daily. Students can track their topic goals in ALEKS. All homework assignments must be submitted by their specified due dates. **No late assignments will be accepted. Topic goals will begin Tuesday May 11th at 12:00am.**

**Pie Progress:** 10% of the final grade. This is the percentage of the course objectives you complete throughout the course. Students can track their overall pie progress in ALEKS. **No late assignments will be accepted.**

**Knowledge checks will be assigned periodically. These knowledge checks are practice for your exams so take them seriously. Students will not be given any calculator and should not use one when practicing.**

You will demonstrate mastery on topics through knowledge checks given throughout the semester. These knowledge checks will help to increase your pie progress grade throughout the semester. Knowledge checks are practice for your exams and should be treated as such. **Do not use notes or additional resources that you cannot use on exams.**

ALEKS uses adaptive technology. Using aids (Mathway, apps, google, other people, etc.) to complete your topics and knowledge checks, will penalize you when you take the test. You MUST be able to demonstrate mastery in order to keep the topics in your pie.

**Make-up Exam Policy:** There are no makeup exams, unless it is for a WVU sanctioned absence.

**Proctoring:** While this course is being conducted online, the exams must be proctored. Online proctoring may be done through the online proctoring service, Examity. **Students may need to run multiple internet speed, camera and microphone checks to ensure that**
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they will not have issues on exam days. Instructions for setting up Examity can be found on eCampus. Approximate cost of 2 exams-$40

If for some reason Examity is down, we will use the Respondus Lockdown Browser with Monitor (https://www.aleks.com/support/lockdown_system_requirements) for exams.

Completing the course early: Students who complete 100% of the course material and demonstrate sufficient mastery through a series of proctored comprehensive knowledge checks will be permitted to take the final exam early. The final will be scheduled after the student demonstrates mastery of the course material and the instructor approves of the student taking the final exam early.

Students who take exams early may be allowed to retake exams if they revisit missed topics.

Grading Scale:
Standard rules of rounding and significant figures apply. This grading scale maybe lowered, but students earning these course percentages will be guaranteed these letter grades. Students cannot register for Math 124/104 or Math 126/106 without a C or higher in the course.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90 - 100%</td>
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<tr>
<td>B</td>
<td>80 - 89%</td>
</tr>
<tr>
<td>C</td>
<td>70 - 79%</td>
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<tr>
<td>D</td>
<td>60 - 69%</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60%</td>
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Grades are updated often in eCampus and ALEKS, however eCampus will be the official grade for the course.

Inclusivity Statement
The West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect, and inclusion.
If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate
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arrangements with the Office of Accessibility Services (293-6700). For more information on West Virginia University's Diversity, Equity, and Inclusion initiatives, please see http://diversity.wvu.edu

Academic Integrity Statement
The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, instructors will enforce rigorous standards of academic integrity in all aspects and assignments of their courses. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the West Virginia University Academic Standards Policy (http://catalog.wvu.edu/undergraduate/coursecredittermsclassification). Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see your instructor before the assignment is due to discuss the matter.

Please visit the following links for more information on:
Commitment to Diversity, Equity, and Inclusion: http://catalog.wvu.edu/undergraduate/#missiontext
Academic Rights, Penalties and Appeals: http://catalog.wvu.edu/graduate/enrollmentandregistration/#academicrightspenalitesappealtext
Center for Excellence in Disabilities: http://catalog.wvu.edu/undergraduate/#missiontext
Office of Accessibility Services: http://www.cedwvu.org/