UNIV 102 Quantitative Reasoning

| Instructor: | Office Hours: |
|--------------------------------|---|
| Benjie "Shelly" Clapp | Monday & Wednesday 10:00-11:00 am |
| Email: bshellyg@unm.edu | & By Appointment MWF after noon |
| Office: TBA | www.aleks.com |
| ALEKS Course Code: 6ULNV-DTDFF | Temp Access code: 7B219-505E1-7929E-C0AAC |

Section 54676/055 MWF 11:00-11:50 AM

Course Description:

UNIV 102 Quantitative Reasoning is a developmental course designed to prepare students for college level mathematics. Students will take assessments which generate their individualized paths through introductory algebra.

Course Rationale:

This course is designed to prepare students for college-level science and mathematics courses. All students at UNM must complete the Math core requirement and any pre-requisite Math course that does not fulfill the core requirement. After mastering 75% all topics in Quantitative Reasoning, students may enroll in the next set of courses in their math course sequence (MATH 101/102/103 series: Intermediate Algebra).

Course Prerequisite:

None

LEARNING OBJECTIVES:

Each student will be directed towards the topics for which the student must gain deeper understanding and mastery in order to advance. As such, this should not be viewed as a chronological guide to the course, although some elements naturally will follow others. Rather, this document represents a collection of topics from which each student's coursework will be built. Students will start with basic skills in Algebra to gain necessary knowledge and skills for success in **Math 101**.

Student Learning Outcomes:

- 1. Students in this class will learn to use algebraic skills in both computational and applied problems in preparation for taking Intermediate Algebra.
- 2. Students will learn to understand material using standard mathematical terminology and notation when presented either verbally or in writing.
- 3. Students will improve their skills in describing what they are doing as they solve problems using standard mathematical terminology and notation.
- 4. Students will practice the habits that exemplify academic responsibility in a self-paced learning environment.

Grade Information

Students should expect to receive one of the following grades at the end of the semester: A = 90 - 100, B = 80 - 89, C = 70 - 79, D = 60 - 69, F = below 60

Course grades will be calculated according to the following criteria:

| | Class Attendance – Attend every class meeting, arrive on time and stay for the entire class | | | | | | | | | |
|-------|--|--|--|--|--|--|--|--|--|--|
| 10% | period for full credit on this component of the grade. | | | | | | | | | |
| | Participation – Must Attend*: | | | | | | | | | |
| | (1) 2 (two) Center for Academic Program Support (CAPS) workshops throughout the | | | | | | | | | |
| | semester: | | | | | | | | | |
| | a. Time Management | | | | | | | | | |
| | b. Note Taking | | | | | | | | | |
| | c. Test Taking | | | | | | | | | |
| | (2) 2 (two) office hours with professor | | | | | | | | | |
| 15% | (3) 2 (two) out-of-classroom tutoring sessions with College Enrichment Program (CEP) | | | | | | | | | |
| | Peer Mentor Tutors (PMTs) | | | | | | | | | |
| | *If students complete the course content in 8 weeks, they are only accountable for 1 of each requirement | | | | | | | | | |
| 25% | ALEKS Exam #1 | | | | | | | | | |
| 25% | ALEKS Exam #2 | | | | | | | | | |
| + 25% | ALEKS Exam #3 | | | | | | | | | |
| 100% | Total | | | | | | | | | |

Class Attendance:

Attendance: Attendance is mandatory. If a student has more than three unexcused absences he/she may be dropped from the course. Tardiness or early departure may be regarded as an absence. It is the student's responsibility to withdraw from the course if he/she stops attending.

Time on ALEKS: Each week you are expected to spend approximately 9 hours of productive time on ALEKS. (That means you can't just log in and go watch a movie!) Since you are usually spending 3 hours per week on ALEKS during class time, that means you'll typically need to spend about 6 hours per week on ALEKS outside of class (at home, in the Math Learning Lab (MaLL), etc.) (It may be most productive to spend your outside - of-class time on ALEKS in the MaLL where you have access to tutors when needed.) Instructors can monitor student activity on ALEKS and can tell if a student is not using ALEKS time productively. At the end of the semester you will be expected to have put in a minimum of 144 hours of productive time on ALEKS.

ALEKS Objectives:

In ALEKS, an Objective is a group of related math topics. Think of an Objective as a chapter in a textbook. (Note: Objectives are not the same as the ALEKS pie slices. An Objective may overlap several pie slices and vice versa.) Topic mastery is determined by ALEKS Progress Assessments. These are given at three points throughout the semester. Each of these assessments will focus on topics the student has been working on recently. Results of the assessments will update the student's pie. This means that students may lose pie sections for topics they had previously mastered but did not retain and may gain pie sections for topics they appear to have newly mastered. Progress assessments can be taken during class or outside of class. Every Progress Assessment question must be copied and worked on the appropriate page in the notebook. These assessments do not affect your grade, but should be done to the best of your ability so that ALEKS doesn't send you back to re-do a topic you've already covered.

A comment about vocabulary: This document uses the word "objective" to represent a specific item of material; ALEKS software uses the word "objective" to represent a more general area of study, such as a chapter in a textbook. ALEKS uses the word "topic" to represent a specific item of material.

Classroom Resources:

Please bring the following items to every class:

(1) A notebook for ALEKS

- (2) pencils and erasers
- (3) ear buds or head phones

Cell phones must stay dark, silent, and out of reach at all times during class.

Text: This course utilizes the ALEKS software and notebook that you are required to purchase. In your future Math courses here at UNM, you will be graded on the steps you show in the problem, as well as whether your answers are correct or not. To prepare you for this, we will require you to write out your work in your notebooks. You must bring this notebook to the lab with you. There is no other text for this course.

Software:

We will be using the online commercial program ALEKS (Assessment and LEarning in Knowledge Spaces). ALEKS is an artificial intelligence - based system for individualized learning and is available 24/7 over the internet at <u>www.aleks.com</u>.

Course Design:

After a quick tutorial, ALEKS will assess the topics you already know and what you are ready to learn next. Your progress is reported by ALEKS in the form of a pie chart. As you learn new topics, the pie slices are filled. Keep working on new topics until you have mastered all of them and have filled in your pie.

Notebook:

You will undoubtedly find it very helpful to maintain a notebook containing the problems and explanations you will encounter as you work in ALEKS. Your notes will provide you with a written resource that you can use to seek further help, when needed, from your instructor or tutors in the Math Learning Lab. You may use your notebook during assessments.

Calculator:

An online calculator is available within ALEKS when appropriate. No other calculators are permitted.

Assessments: ALEKS will periodically provide you with progress assessments over the material you have been studying. These assessments cannot be skipped and will not affect your grade. They provide the software and your instructor with detailed information about your progress, and they will allow ALEKS to continue to provide you with the material you are ready to learn. Although assessments do not affect your grade, they do determine the topics you will complete next, so please be careful as you take them. You have the potential to gain or lose topics while taking an assessment. **Because they pop up at anytime and control your placement in the course, please keep very well organized notes. You may use notes on assessments**. When you finish your assessment, you can ask your instructor to email a copy to you and you should print it and keep it in your notebook. These assessments are excellent to keep in your notes.

Class conduct:

We all deserve and have the right to a safe, peaceful, conducive to learning environment. Some students have difficulty concentrating and deserve--and need--a minimum distraction environment to learn. We all need to be sensitive to their needs. So, please:

- Come on time and stay for the full length of the class period (refrain from leaving your seat unless it's an emergency).
- Turn off and put away cell-phones and other mobile devices.
- Don't check/send text messages.

- Leave covered drinks outside of the classroom. Food and drink are NOT allowed in the computer lab.
- Ask your instructor about the use of ear buds during class. Use is at your instructor's discretion.
- Bring all required materials to every class, pay attention and participate in class, do homework daily, and be consistent.
- Find out what you miss from your classmates (your responsibility) if you are ever late or absent.

Additional information:

1. Americans with Disabilities Act: In accordance with UNM Policy 2130 and the Americans with Disabilities Act (ADA), academic adjustments may be made for students with disabilities. Accessibility Resource Center, 2021 Mesa Vista Hall, 277-3506 (voice/TT), coordinates accommodations and services. If you have a disability for which you may request academic adjustments and have not registered with their office, please do so as soon as possible. Also meet with me privately to discuss your specific accommodations and how they relate to course expectations and assignments.

2. Classroom Support:

- <u>CEP Peer Mentor Tutors (PMTs)</u>: CEP PMTs are incorporated in your class to support your learning and transition to UNM. They will serve in your classroom and also offer tutoring hours outside of class sessions to help support your learning. The program is designed to assist students in the development of their full academic potential and to inspire them to become independent learners. CEP PMTs will also hold Assessment Test Prep Sessions throughout the semester. Hours for tutoring will be provided the first week of classes.
- 2. <u>CAPS</u>: The Center for Academic Program Support (CAPS) is located on the third floor of Zimmerman Library, <u>http://caps.unm.edu</u>. The Center's tutors provide content-based tutoring in many lower division courses (some upper division) as well as writing and study skills assistance. Small group, individual, drop-in, and online tutoring is available.
- <u>Math Learning Lab (MαLL)</u>: The Math Department will allow students in QR to use the MαLL during Open Lab Hours (located in Centennial Science and Engineering Library's basement). Friday: 8 AM to 6 PM; Sunday: 12 PM to 6 PM
- **3. Student Technology Resources**: Computer labs for student use are available in the basement of the Student Union Building (SUB), CEP, the ethnic centers, Women's Resource Center, CAPS, libraries around campus, Casas del Rios Student Success Center, and many other spaces. Additional computer labs may be available in your department/college. Please talk with the CEP PMTs about finding the space that would work best for you.

Student Integrity: According to the Code of Conduct as stated in the Policies and Regulations for UNM, student activities that interfere with the rights of others to pursue their education or to conduct their University duties and responsibilities will lead to disciplinary action. This includes any activities that are disruptive to the class and any acts of academic dishonesty. Students are expected to behave in a courteous and respectful manner toward the instructor and their fellow students. Students may be dropped for inappropriate behavior. It can be found at pathfinder.unm.edu.

Deadlines: University of College will adhere to all of the registration deadlines published by the Office of the Registrar in the schedule of classes.

Last day to drop with full refund and no grade is September 4, 2015.

Last day to drop without Dean's permission is November 6, 2015.

Last day to drop with Dean's permission is December 4, 2015.

Course Schedule:

Students have 16 weeks to complete this content. But, you are encouraged to complete the work before the end of semester. This course is designed to let you work at your own pace while providing you with ample resources and support. Try to finish the course early, so that you may be able to complete MATH 101 and possibly 102 by the end of the term, which are prerequisites for Stat 145 or Math 129.

You have two opportunities to transition from this course to the MATH 101/102/103 series.

- In the 2nd week of the course, every student will complete an initial diagnostic to assess where they are in the QR curriculum. If a student scores a 75% or better, advisors will work with students to disenroll from QR and enroll in MATH 101 1H (1 credit) and MATH 102 2H (1 credit) (and if need be, MATH 103 2H (1 credit), depending on their major). Students will earn no credit for UNIV 101. Total credits hours attempted related to math courses: 2 to 3 credit hours (Student must earn 15 credit hours to be eligible for the New Mexico lottery scholarship. Please see advisors to make sure you are enrolled in enough credits)
- In the 8th week of the course, students who have completed all three Assessments, half of the course participation work, and have a score of 75% in the Assessments, will receive a final grade for QR (3 credits) and enroll in MATH 101 2H (1 credit) for the second 8 weeks of the semester. **Total credit hours attempted related to math courses: 4 credit hours**
- If you complete the course work at different points throughout the semester outside of these times, you will begin working on MATH 101 curriculum that will transfer with you to the next semester. This will allow you to progress through the next course in the sequence more quickly.

| | To Complete UNIV 102 in 16 weeks | | | | | | | | | | | |
|---|----------------------------------|--------------|---------------|------------------------------|--------------|--------------|---------------|------------------------------|--------------|---------------|--------------|---------------------------------|
| | QR1 | | | | QR2 | | | | QR3 | | | |
| Date | Th 08/20 | Wed 09/02 | Tues 09/15 | Wed/Th 09/16-17 | Th 10/01 | Mon 10/19 | Tues 10/27 | Wed/Th 10/28-29 | Th 11/05 | Tues 11/17 | Mon 11/30 | Wed/Th 12/02-03 |
| # of topics mastered by given date | 50 of 109 | 85 of 109 | All 109 | Take QR1 in class EXAM | 70 of 103 | 95 of 103 | all 103 | Take QR2 in class EXAM | 65 of 101 | 85 of 101 | All 101 | Take QR3 In class EXAM |

Recommended Progress Benchmarks To Complete UNIV 102 in 16 weeks

Recommended Progress Benchmarks To Complete UNIV 102 in 8 weeks

| | To complete OTTV 102 m o weeks | | | | | | | | | | | |
|---|--------------------------------|--------------|---------------|------------------------------|--------------|--------------|---------------|------------------------------|--------------|--------------|---------------|---------------------------------|
| | | | QR1 | | QR2 | | | | QR3 | | | |
| Date | Thu 08/20 | Wed 08/26 | Tues 09/01 | Wed/Thu 09/02-03 | Thu 09/10 | Mon 09/14 | Tues 09/21 | Tues/Wed 09/22-23 | Mon 09/28 | Fri 10/02 | Tues 10/06 | Wed/Thu 10/07-08 |
| # of topics mastered by given date | 70 of 109 | 90 of 109 | All 109 | Take QR1 in class EXAM | 70 of 103 | 85 of 103 | All 103 | Take QR2 in class EXAM | 65 of 101 | 85 of 101 | All 101 | Take QR3 In class EXAM |

Information found in this and the accompanying documents is subject to change. If you are enrolled in this class and want to be sure you have current information about it, attend all classes. Announcements of revised policies and schedules are usually made at the beginning of the class period, so it's advisable to arrive on time.