UNIVERSITY
OF GUAM
Unibetsedåt
GUAHAN

College of Natural and Applied Sciences
Mathematics and Computer Science

Course: MA115-02: Introductory College Algebra (3 credits)
Semester: Fall 2021
Meetings: MW 9:35AM-10:55AM
Room: ***SC121***
Instructor: Russell Lee
Office: Warehouse B Room 4
Email: **rlee@triton.uog.edu**
Office hours: TTH 10:00AM-11:00AM, 2:00PM-4:00PM, F 3:00PM-4:00pM
(subject to change with advance notice)

Catalog Description:

This course prepares students for MA161A-B or MA165. Topics include polynomial equations; radical expressions; systems of equations and inequalities; functions; inverse functions; graphing; rational, exponential, and logarithmic functions; and application problems. This course satisfies the GE requirement. It is intended for those students who continue their studies in mathematics after completing this course.

Text: *Algebra: Form and Function, 3rd ed., by Connally, Hughes-Hallett, et al.*

Rationale for Course:

The purpose of this course is to prepare students for success in MA161a or MA165. The student is asked to solve problems similar to those encountered in Elementary Algebra, but at a more sophisticated, more difficult level. This helps the student to absorb and understand the underlying concepts better and to feel more comfortable with the material. It also improves retention of basic algebraic techniques and ideas. Students are introduced to inverse functions, exponential functions, and logarithmic functions. A basic understanding of these concepts is critical for success in any college level mathematics course, as well as in physics, chemistry, economics, biology, and many other subjects. This course also satisfies general education requirements.

Prerequisites:

MA085 Level II, completed within the previous 3 semesters, or placement.

Calculator:

You are required to have a standalone scientific calculator (no data connectivity, no phone apps,etc.) for this course; a graphing calculator is optional but not required. Students are expected to have a working scientific calculator for quizzes and tests, for those (few) times when a calculator will be allowed. No electronic calculators on tablets, smartphones, or laptops permitted during testing periods. No calculator swapping is permitted during testing periods, and you are still expected to show all required work to receive full credit.

Attendance:

Your attendance in class is encouraged and is directly related to your grade (see Evaluation below). Please inform the instructor if you will be absent. We will run into occasions when we absolutely cannot make it to class. I am subject to those environmental and familial setbacks too. However, we must make it a point to attend all class sessions on time.

Evaluation:

40% Quizzes
60% Chapter Tests *(typically two or three chapters per test)*

100% Total percentage

Letter grades will be assigned as follows:

90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
0 – 59%	F

NO MAKE-UPS. Contact instructor IMMEDIATELY via telephone/email for extenuating circumstances.

Make-up policy:

There will be no make-up quizzes or tests unless you contact the instructor IMMEDIATELY for extenuating circumstances. For example, you have to go off-island, you will be hospitalized or under serious medical treatment, deployment, etc.

Homework and Quizzes:

Homework problems will be assigned for each class meeting but **will not** be collected and graded. You may need to do additional problems from the textbook to fully master a topic, even if those problems were not assigned. Keep in mind that quizzes and tests are based on homework problems.

Quantitative Reasoning (QR) Assessment:

As part of the University's efforts to prepare for accreditation, UOG will assess students on the core competencies of Critical Thinking, Information Literacy, Oral Communication, Quantitative Reasoning, and Written Communication. Our class will be participating in the Quantitative Reasoning (QR) Assessment this semester. This will consist of a 30-question online or paper test, which will take one class period. The assessment will be conducted near the end of the semester; the exact date will be announced in class.

Student Responsibility:

You are expected to spend 1-1½ hours of outside study for each hour inside the classroom. Do not commit the two cardinal sins in a mathematics course: **falling behind and leaving unanswered questions unanswered**. Both will complicate your life and cause a lot of unnecessary stress.

Remember, in order to succeed in any math class, you will need to put in the appropriate amount of time outside of class. So, read the textbook before class, work as many practice problems as you can, write down questions you have as you read or work problems, and ask your questions in class. You will feel a sense of confidence and accomplishment for all problems you complete and attempt. And, since this is a gateway to upper-level math and science courses, practice is the best way to build your math intuition and ensure you have a solid foundation. **Your grade is a direct reflection of the amount of time you put into this class.**

The following are some important notes concerning student responsibilities:

- Please do not ask for a copy of my notes for a day on which you were absent. Employ the buddy system to get copies of any notes you might need. It's probably a good idea to start exchanging phone numbers (or e-mail addresses) with classmates *now* in the event of such a need *later*.
- If you are absent, it is your responsibility to pick up anything handed out or passed back during your absence, and in a timely manner. Please see me before or after class--or during office hours--to obtain these items, though--not during the day's lesson.
- It is your responsibility to keep hold of any supplemental material distributed in class. It is also your responsibility to retain all quizzes and tests passed back to you.
- It is your responsibility to keep an accurate record of your graded work. Again, do not assume I always have my to-the-moment grade sheets ready.
- If you are ill, **STAY HOME** and take care of the more important business of getting yourself well. If you are exhausted, PLEASE go home and get in the needed rest, for coming to class feeling sleepy isn't going to help you much with the day's lesson.
- Lastly, it is your responsibility to keep, read and know the contents of this syllabus.

Your Math Resources: Office Hours, Math Tutor Lab, TRiO

There are several campus resources available to you if you need extra help with any of the course material.

- **Your instructor!** Come to my office hours or email me to set up an appointment to meet at another time if you can't make my office hours.
- **The Math Tutor Lab!** The CNAS Math Tutor Lab is located at the Agriculture and Life Sciences Building in Room 230 (**ALS230**). MA085/094 students will have priority at the tutor lab and can book an appointment at the tutor lab website uogmathlab.org. NON-MA085/094 students will be helped as a walk-in only on a first come-first serve basis. Fall 2021 tutor lab hours of operation are Monday-Friday 9am-5pm. For more information, please call 735-2064, email mathtutorlab@triton.uog.edu or visit the tutor lab website.
- **TRiO!** The TRiO Programs offers tutoring services to students who meet certain eligibility requirements. For more info, check out their website: http://www.uog.edu/trio-programs-home.

Special Accommodations:

If you are a student with a disability who will require an accommodation(s) to participate in this course, please contact me privately to discuss your specific needs. You will need to provide me with documentation concerning your need for accommodation(s) from the EEO/ADA Office. If you have not registered with the EEO/ADA Office, you should do so immediately at 735-2244/2971/2243 (TTY) to coordinate your accommodation request.

Academic Integrity Policy:

Academic Integrity is about performing in your role as student in ways that are honest, trustworthy, respectful, responsible, and fair (see www.academicintegrity.org for more information). As a student, you will complete your academic assignments in the manner expected by the instructor. Academic dishonesty, including but not limited to cheating and plagiarism may result in suspension or expulsion from the University. Refer to the UOG Student Handbook and Code of Conduct for more information.

Notification of Rights Under FERPA:

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights for students, parents and school officials can be viewed at http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html.

Tobacco-free/Smoke-free/Vaping-free campus:

UOG is a tobacco-free/smoke-free, vaping/e-cigarette free campus. Thank you for not using tobacco products or e-cigarettes on campus, for helping to fight cancer, and for helping make UOG a healthy learning and living environment.

Welcome!

AND FINALLY...Welcome to MA115! This class will move at a good pace through the textbook, but should be fun and interesting for those who come to class ready to listen, learn, and ask questions when they don't understand a particular concept or can't read my writing on the board.

MA115 – Learning Outcomes and Curriculum Mapping

Ever wondered why we require certain courses for general education, or for a given major, or as a prerequisite for another course? Read on below to see what the MA115 student learning objectives are (what you should expect to learn in this course), how they tie into the Math Program Learning Outcomes, and how they tie into the bigger picture – the University's Institutional Learning Outcomes.

MA115 Course Student Learning Outcomes (SLOs)

Course SLOs:	**Program Learning Outcomes (PLOs)**	**University Learning Outcomes (ILOs)**	**Method of Assessment**
Demonstrate familiarity with the graphical and algebraic characteristics of polynomial, rational, exponential, and logarithmic functions.	MA PR-1 MA PR-3	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.

Identify functional relationships between two variables, both graphically and algebraically.	MA PR-1 MA PR-3	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
Apply the concept of function in making models for problem solving.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2 ILO-6	Questions on homework, workshops, quizzes and tests.
Solve linear systems of equations via substitution, elimination, or graphing.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.

(Note: Student Learning Outcomes for MA115 are undergoing revisions.)

Math Program Learning Outcomes:

MA PR-1: *demonstrate critical thinking*, *problem solving skills* and ability to use mathematical methods by *identifying, evaluating, classifying, analyzing, synthesizing* data and abstract ideas in various contexts and situations.

MA PR-2: *exhibit a sound conceptual understanding* of the nature of mathematics, and *demonstrate advanced mathematical skills* in mathematical analysis, modern algebra and other mathematical discipline(s).

MA PR-3: *argue and reason* using mathematics, *read, create* and *write down* logically correct mathematical proofs, *use exact mathematical language* and *communicate mathematics efficiently* orally, in writing and using information technology tools.

MA PR-4: *apply abstract thinking, mathematical methods, models* and *current practices* in the sciences, including state-of-the-art mathematical software, to solve problems in theoretical mathematics or in a diverse area of mathematical applications.

MA PR-5: *show maturity in mathematical knowledge and thinking* that prepares and encourages students to pursue graduate studies in mathematics or in related fields.

MA PR-6: *demonstrate an appreciation of* and *enthusiasm for* inquiry, learning and creativity in mathematical sciences, a sense of exploration that enables them to *pursue lifelong learning* and *up-to-date professional expertise* in their careers through various areas of jobs, including governmental, business or industrial jobs in mathematics, related sciences, education or technology.

Institutional Expected Student Learning Outcomes:
UOG Expected Student Learning Outcomes December 2008

Some of the expected fundamental knowledge, skills, and values that the University of Guam student will have demonstrated upon completion of any degree are:

ILO1: Mastery of critical thinking & problem solving
ILO2: Mastery of quantitative analysis
ILO3: Effective oral and written communication
ILO4: Understanding & appreciation of culturally diverse people, ideas & values in a democratic context
ILO5: Responsible use of knowledge, natural resources, and technology
ILO6: An appreciation of the arts & sciences
ILO7: An interest in personal development & lifelong learning