College of Natural & Applied Sciences
Division of Mathematics & Computer Science

MA161A-02 College Algebra and Trigonometry (3 Credits)

Fall (Fanuchånan) 2018

Instructor: Dr. Hyunju Oh

Class Meeting: TTh 4:00 - 5:20pm Room: HSS 306

Office: ALS Rm316

Phone: 735-2142

Email: ohh@triton.uog.edu

Office Hours: MTWTh 12:30 – 1:30pm; MW 3:30 – 4:30pm; or by appointment

Textbook:
Algebra and Trigonometry with Analytic Geometry, 13th edition, by Swokowski and Cole
ISBN-13: 978-0-8400-6852-1; ISBN-10: 0-8400-6852-2

Catalog Description:
MA161a includes algebraic, exponential and logarithmic functions, systems of equations and inequalities. MA161b includes trigonometry, additional algebraic functions, sequences, series, and probability. A student may receive credit for either the MA161a-b sequence or the MA165 course, but not a combination of the two.

Prerequisite:
Grade of C or better in MA115, or placement into MA161a.

Rationale for Course:
Satisfies general education requirements. Required for STEM (science, technology, engineering, mathematics) majors. Prepares students for calculus and other upper level mathematics courses, as well as courses in other STEM disciplines such as physics, pre-engineering, chemistry, and biology.

Calculators:
A scientificc calculator such as TI-83 is required for this course. Students are expected to have a working calculator for Quiz/Test/Exam with exception. No calculator sharing is permitted during quiz and test periods. **Laptop, tablet, and cellphone are NOT allowed to use in class.**

Tentative Schedule:

Weeks 1 – 3	Ch. 1 (review of basic algebra)
Weeks 3 – 6	Ch. 2
Weeks 7 – 9	Ch. 3
Weeks 10 - 13	Ch. 4 & selected topics from Ch. 9
Weeks 14 – 17	Ch. 5

(This is a tentative schedule, and is subject to change, should a topic require more or less time in class)

Tentative Test Schedule:

Test 1: 6th Week (September 19) --- Ch. 1 & 2
Test 2: 11th Week (October 25) --- Ch. 3 & 4
Test 3: 17th Week (December 4) --- Ch. 9 & Ch.5
Final Exam (Cumulative) 4:00 - 5:50pm, December 11, Tuesday

Evaluation:

The grade distribution and grading scheme are as follows:

Quizzes 20% Tests 60% Final Exam 20%

Grading Scale:

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

Students work is usually graded on a partial credit basis. Students written solutions must include all work needed in order to solve problems. Points will be deducted (or given none) for omitting any work even if the answer is correct.

Quiz:

There will be quiz in the beginning of each class. Quizzes will be generated from homework and lecture notes. There will be no makeup quizzes. Your lowest three scores will be dropped for your final grade evaluation. **Missing FIVE or more quizzes** will result in **grade F** as a course grade regardless of your total points.

Homework:

Homework will be assigned each class. To be successful, a student must complete all assigned homework even if they are not collected and graded.

Tests/Final Exam:

There will be three exams and a cumulative final exam. All notes and the textbook are prohibited from use on exams and on the final exam. It is crucial to do well on Tests and Final Exam. Missing any single test or final exam will result in grade F. Very special circumstances will be handled very specially by consultation with the instructor. Except for true emergencies, these special cases are arranged in advance with the instructor.

Attendance:
Students are expected to attend every scheduled class. It is the students' responsibility to keep informed of any announcements, syllabus adjustments or policy changes made during scheduled classes. Those who come late for the class cannot take quiz that day. In case you must leave early, you need to inform the instructor in advance about your leaving class early. Please inform the instructor if you will be absent.

Academic dishonesty:
All assignments and Quiz/Test/Exam must be your own work. The term plagiarism includes, but is not limited, to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. Plagiarizing in your essay or CHEATING on Quiz/Test/Exam will result in Course Grade F regardless of your total points. If you are not sure what plagiarism is and how to avoid it in using sources for your work, see www.indiana.edu/~wts/pamphlets/plagiarism.shtml but be careful when paraphrasing not to change the meaning of scientific information. Answers you write on Quiz/Test/Exam must come only from in your head or the information supplied in the test papers; anything else is cheating. The term cheating includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations, e.g., looking at other students answers, using crib notes (including electronic), getting information from another person via any kind of communication; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the University faculty or staff. If you need to use an electronic translator, you must discuss this with me in advance.

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 2017 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.

Learning Objectives and Outcomes:

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 MA161a 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.

MA161a Course Student Learning Objectives (SLOs)

Course SLOs:	Program Learning Outcomes (PLOs)	University Learning Outcomes (ILOs)	Method of Assessment
Demonstrate an understanding of polynomial, rational, exponential, and logarithmic functions and their corresponding graphical representations.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
Generate graphs of polynomial, rational, exponential, and logarithmic functions without a graphing calculator.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
Use polynomial, rational, exponential, and logarithmic functions to solve real-life applications and problems.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2 ILO-6	Questions on homework, workshops, quizzes and tests.
Sketch the graphs of different kinds of functions, identify their domain and range, and construct new functions from a given set of functions.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
Solve different kinds of equations: linear, quadratic, radical, polynomial, exponential, and logarithmic.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
Formulate appropriate mathematical equations and use these equations to solve word problems.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2 ILO-6	Questions on homework, workshops, quizzes and tests.
Demonstrate skill in performing the fundamental operations on radicals, polynomials, and complex numbers.	MA PR-1 MA PR-3	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.

(Note: Student Learning Outcomes for MA161a 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.
(Note: Math Program Learning Outcomes are undergoing revisions.)

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

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.

Special Accommodations:

If you are a student with a special need 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(s) 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. For more information visit:
http://www.uog.edu/administration/office-of-the-president/eeoadatitle-ix-office

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.

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