



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

**Course:** Precalculus – MA-165 – 01  
**Semester:** Fañomnåkan 2024 (Spring 2024)  
**Meetings:** MTWTh 11:00 AM – 12:15 PM (Online via Big Blue Button on the Moodle)  
**Instructor:** JaeYong Choi **Office:** N/A  
**Email:** [choij@triton.uog.edu](mailto:choij@triton.uog.edu) **Telephone:** N/A  
**Office hours:** MTWTh 09:30 AM – 11:00 AM or by arrangements.  
(Online office hours via Big Blue Button on the Moodle)

### **Catalog Course Description:**

Topics include algebraic, exponential, and logarithmic functions; systems of equations and inequalities; trigonometry; sequences and series. A student may receive credit for either the MA-161A-B sequence or the MA-165 course, but not a combination of the two.

Prerequisites: A grade of C or higher in MA-115, or placement into MA-165.

### **Required Textbook:**

*Algebra and Trigonometry with Analytic Geometry, 13<sup>th</sup> edition, by Swokowski and Cole*

### **Rationale for the Course:**

This course satisfies general education requirements and prepares students for calculus and other upper-level mathematics courses, as well as courses in other STEM (science, technology, engineering, and mathematics) disciplines such as physics, pre-engineering, chemistry, and biology.

### **Calculator:**

You are required to have a scientific calculator, but a **graphing calculator** is highly recommended (TI-83 Plus or TI-84 Plus is fine). We will be using these graphing calculators to study the graphs of given functions, its zeros, etc. in depth. Students are expected to have a working calculator for those (few) times when a calculator will be allowed. However, no electronic calculators on tablets, smartphones, or laptops are permitted during quizzes, tests, or exams. No calculator swapping is allowed, and you are still expected to show all required work to receive full credit.

### **Grading Policy:**

<u>Description:</u>	<u>Percent of Total Grade:</u>
Tests:	45% (15% each)
Final:	30%
Quizzes:	10%
Participation	5%
Attendance	10%

### **Final grade:**

A+ = 98-100%	A = 93-97%	A- = 90-92%	
B+ = 87-89%	B = 83-86%	B- = 80-82%	
C+ = 77-79%	C = 70-76%	D = 60-69%	F = Below 60%

### **Evaluation**

#### **Homework:**

Homework will be assigned for each one or two section(s) on the Moodle. You are expected to work on the homework to prepare for the quizzes and the tests. Homework is an essential component of the course. To be successful, a student must complete all assigned homework even if it is not collected or graded.

#### **Quizzes/Tests/Final Exam:**

There will be online chapter quizzes, as well as three in-person tests and a cumulative final exam in person. Tests will be announced with a testing place at least one week in advance. Only a writing implement, scratch papers (No notes), a scientific calculator and a drink will be allowed to around your test taking area and all other material, especially math related, must be kept out of view. There will be no make-ups for the tests without documentation of circumstances, i.e., doctor's note, etc. If you miss any test, you will receive the grade "F." All work on exams must be shown and submitted in order to receive full credit. You are not allowed to use any electronics on the quizzes, tests or final, other than a stand-alone calculator. This means no calculator apps on cellphones, computers, or tablets.

#### **Attendance/Participation:**

Students are expected to attend every scheduled class. Your attendance in class is encouraged and is directly related to your grade. It is the student's responsibility to keep informed of any announcements, syllabus adjustments or policy changes made during scheduled classes. Please inform the instructor if you will be absent. However, we must make it a point to attend all class sessions on time, if it exists. For participation, there will be forum where you can ask questions if something is not clear. You are encouraged to answer other students' questions. This will count as your participation in the class.

#### **MA-165 - 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 MA 165 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.

Course SLOs:	Program Learning Outcomes (PLOs)	University Learning Outcomes (ILOs)	Method of Assessment
Identify functional relationship between two variables, both graphically and algebraically.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
Specify the graphical and algebraic characteristics of polynomial, rational, exponential, logarithmic, and trigonometric functions.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
Employ mathematical modeling techniques to solve problems using polynomial, rational, exponential, logarithmic, and trigonometric functions.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	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.
Demonstrate an understanding and application of systems of equations, and the various methods for solving them.	MA PR-1 MA PR-3 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.

Demonstrate an understanding of infinite sequences and geometric series. (Time permitting)	MA PR-1 MA PR-5 MA PR-4	ILO-1 ILO-2	Questions on homework, workshops, quizzes and tests.
Gain basic familiarity with conic sections, both graphically and algebraically. (Time permitting)	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 MA 165 are undergoing revisions.)*

### ***Math Program Learning Objectives:***

**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**

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

### ***Tobacco-Free/Smoke-Free/Vape-Free Campus:***

University of Guam is a tobacco-free/vape-free campus. Thank you for not using tobacco/vape products on campus, and for helping make UOG a healthy learning and living environment. <http://www.uog.edu/smoke-free-uog>

### **Plagiarism Statement:**

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

(UOG Student Handbook, p. 49). Cases of plagiarism are referred to the Student Discipline and Appeals Committee. In this course this penalty for plagiarism is [up to the instructor – the most common penalties are no credit for the assignment or failure in the course].

***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>.

***Special Accommodations:***

The University is committed to maintaining the campus community as a place of work and study for faculty, staff and students, free of all forms of discrimination and harassment. If you experience harassment or discrimination, then you should report it immediately to Mr. Larry Gamboa, Acting EEO Director at the EEO/ADA & Title IX Office, Institutional Compliance Officer (671) 735-2244 located in Dorm 1. For immediate assistance in an emergency call 911.

***CollegeNET Course Evaluations:***

The student course and faculty evaluations for courses will be administered at the completion of the semester within CollegeNet. Student participation is essential and appreciated. Student responses are anonymous and cannot be traced back to individual students. You will need your WebAdvisor login credentials to complete the evaluation. If you experience login issues please refer inquiries to OIT staff to assist at 735-2630/40.

***COVID Statement***

The University of Guam is experiencing continued disruption to delivery of instruction during the global coronavirus pandemic. The University will follow executive orders and may be forced to close again, causing more modifications as the semester progresses. All changes will be posted on the UOG website, [www.uog.edu](http://www.uog.edu).

- Contact Office of Information Technology at 735-2630 or [oit@triton.uog.edu](mailto:oit@triton.uog.edu)
- Contact the Triton Advising Center at 735 – 2271 or [tac@triton.uog.edu](mailto:tac@triton.uog.edu)
- Contact Uplift Counseling Services at 787-7978 or [uplift@westcare.com](mailto:uplift@westcare.com)
- Contact Project Tulaika Mental Health Services at 647-5317; 647-1901; 647-5440; 647-8833/34 or [care@gbhwc.guam.gov](mailto:care@gbhwc.guam.gov)

In face to face courses, wearing masks and social distancing is required. Anyone who has a fever, or any other symptom, should stay home. If you do not comply with these directions, you will be asked to leave, and if you do not, class will be cancelled. Patience, respect, and cooperation are needed from all of us to persist through these uncomfortable times.

***DSS Accommodation Services***

For individuals covered under the ADA (Americans with Disabilities Act), if you are a student with a disability requiring academic accommodation(s), please contact the Disability Support Services Office to discuss your confidential request. A Faculty Notification letter from the Disability Support Services counselor will be provided to me. To register for academic accommodations, please contact or visit Sallie S. Sablan, DSS counselor in the School of Education, office 110, [disabilitysupport@triton.uog.edu](mailto:disabilitysupport@triton.uog.edu) or telephone/TDD 671-735-2460.

***No Unauthorized Recording:***

Only the instructor may record class sessions. Unauthorized recording of online class meetings is not allowed, to include screen shots that include identifiable information of any person in the session. Not only is the delivery of course content the intellectual property of the instructor, but students enrolled in the course have privacy rights. Unauthorized recording and distribution of online courses may violate federal law.



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This syllabus is subject to change. If any part of the syllabus needs to be changed you will be notified in class.