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## Syllabus: **Math 142H College Mathematics**

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### Course Information

Course Prefix/Number: Math 142H

Credit Hours: 4

Semester: Spring 2020

Course Title: *College Mathematics*

Class Days/Times: Monday &  
Wednesday

Room: *CENTR 501*

4:15 to 5:55 pm.

### Instructor Information:

Name: Lucinda Begay

Phone/Voice Mail: TBD

E-mail: [lbegay@tocc.edu](mailto:lbegay@tocc.edu)

Office location: TBD

Office hours: *TBD*

### Course Description:

*Basic algebraic functions, including the language of sets, lines in the plane, systems of linear equations, expressions and equations in rational, radical, quadratic, exponential and logarithmic form. This course will also include a survey of a real-life topics in the social sciences and management, along with an introduction to probability and statistics.*

### Student Learning Outcomes:

*After completion of the course students will be able to*

- Analyze and solve problems using linear and exponential growth.*
- Describe the patterns and behavior of exponential models using words, algebraic symbols, graphs and tables.*
- Use descriptive statistics to analyze data.*

### Course Structure:

During this course students will

1. Add, subtract, multiply and divide numbers in the real number system.

2. Solve (linear, rational, radical, quadratic, exponential and logarithmic) equations and inequalities. Realize that some equations and inequalities may have no solution – or infinitely many of them.
3. Graph Equations.
4. Add, subtract, multiply and divide expressions. Apply the principles of counting in problem solving situations.
5. Compute theoretical and empirical probabilities. (in percentages and in fractions)
6. Compute the mean, median, mode and standard deviation for a data set.
7. Use descriptive statistics to analyze data.
8. Solve interest problems using interest formulas for simple, compound and continuous interest.
9. Analyze and solve problems using linear and exponential growth.
10. Analyze exponential models of real world situations to find and estimate solutions, including growth and decay models beyond financial concepts.
11. Describe the patterns and behavior of exponential models using words, Algebraic symbols, graphs and tables.
12. Identify when an exponential model or trend is reasonable for given data or context.
13. Explain the impact of changing parameters.
14. Interpret visualizations for exponential models.
15. Perform basic logarithmic operations to address questions arising in exponential models.
16. Critically evaluate statistics presented in media.
17. Explain hypothesis testing, including the purpose of and differences between experiments and observational studies.
  - Interpret study conclusions, including P-values.
  - Compute and interpret Z-scores.
18. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.
19. Rewrite expressions involving radicals and rational exponents using the properties of exponents.
20. Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.
21. Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

**Texts and Materials: An iPad can be used for this class. Check out at the Library.**

**Textbook: Quantway College, Version 2.7 Publisher: XanEdu.**

**APPS: The “Free GraCalc 2” and “My script calc” apps can be downloaded.**

**Evaluations and Grading & Assignments:**

90 and above is an A

80 - 89 is a B

70 - 79 is a C

60 - 69 is a D

Under 60 is Failing

**Your grade will be determined by the following:**

Your final grade will be calculated as follows:

Attendance	100 points
Homework assignments	300 points
Chapter Tests	300 points
Final Exam	100 points
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Total possible	800 points

**Himdag Cultural Component:**

*Course will explore math by providing precise answers which flows different from Himdag view on discouraging direct, exact answers, in the mathematical world. Exploring math may develop and build new understanding on how it applies to Tohono O'odham people to continue improving or restoring components of Himdag. Students will also formulate a personal ethic regarding the use of mathematical thinking in teaching and research, incorporating perspectives from TOCC Core values.*

**Policies and Expectations:****Course Policies:**

- 1) Students are expected to attend each class, arriving on time, except in the case of an excused emergency.**
- 2) Students are expected to contact instructor prior to absences, coming late to class or leaving early.**
- 3) Unexcused late arrivals or early departures will count against attendance record.**
- 4) Class participation and preparation are essential to student success. Students must read textual material, prepare for projects, complete required research as stated on the course schedule.**
- 5) Students are expected to come to class prepared for class and having done any preliminary work required as per the course schedule.**

- 6) Students are expected to stay in class and work diligently throughout the whole time. Sleeping, frequent/continued exiting from the class during the class period will constitute one (1) absence.
- 7) No cell phone use is allowed during class. Use of cell phone during class, unless permitted by instructor, is a violation of the T-So:son.
- 8) Late work is marked down 10 points for each day of tardiness.
- 9) Failure to submit a project results in a grade of zero (0).

No Work accepted after the last class.

### **Classroom Behavior**

- Visitors may be only allowed at class sessions or on field trips with instructor approval, visitor's safety and behavior are the responsibly of the student.
- Possession of drugs, alcohol or firearms on college property is illegal.
- Food and beverages are allowed in classrooms at discretion of the instructor.
- Cellphones should be turned off during class, unless the instructor is allowing students to use their tools (calculator, internet access).
- Students creating disturbances that interfere with the conduct of the class or the learning of others will be asked to leave.
- Student behavior is also detailed in student handbook under Student Code of Conduct Violations

### **Make-up policy:**

Late assignments that can be made up will be accepted but will be penalized 25%. Laboratories cannot be made up except in the case of college closure. At the instructor's discretion, extra credit opportunities and optional activities may be provided.

### **Academic Integrity:**

Violations of scholastic ethics are considered serious offenses by Tohono O'odham Community College, the Student Services Department, and by your instructor. Students may consult the TOCC Student Handbook sections on student code of conduct, on scholastic ethics and on the grade appeal procedure. Copies are available at Tohono O'odham Community College.

All work done for this class must be your own, or the original work of your group. While you may discuss assignments with other class members, the final written project must clearly be original. You may use work from books and other materials if it is properly cited. Copying from a book without proper reference or from a person under any circumstances will result in an "F" for the assignment, and at the instructor's discretion, possibly an "F" for the course. If you are uncertain about proper citations ask your instructor or the librarian.

**Course Feedback:**

All assignments will be graded and returned to the students promptly, typically within a week after the assignment is closed for handing in. E-mail and phone messages will be returned within two days. A student or the instructor may request a student conference at any time during the semester. Quarterly grade reports will be provided to each student, either in person, by email or via the electronic system of Canvas.

**Attendance Policy**

You are expected to arrive to class on time and be prepared to participate in each class period. Four unexcused absences may result in withdrawal and a “W” or “Y” will be recorded. You may request to be excused from class for religious observances and practices, for illness, for school or work-related travel or for personal or family emergency. If you will be absent, please notify the instructor as soon as possible (approved by Faculty Senate April 2014).

**Incomplete Policy**

Incomplete (I) grades are not awarded automatically. The student must request an "I" from the instructor who can choose to award an Incomplete only if all three of the following conditions are met:

1. The student must be in compliance with the attendance policy.
2. The student must have unavoidable circumstance that would prohibit the student from completing the course.
3. The student must have completed over 75% of the course requirements with at least a “C” grade.

Incompletes are not a substitute for incomplete work due to frequent absences or poor academic performance. Incomplete grades that are not made up by the end of the ninth week of the following semester will be automatically changed to an F if the agreed upon work, as stipulated on the written form signed by the instructor and the student when the I grade is awarded, is not completed.

**Instructor Withdrawals**

Students who have missed four consecutive classes (or the equivalent) not submitted any assignments nor taken any quizzes by the 45th day census report, due on [date of 45th day found in Academic Calendar on TOCC website] are assumed NOT to be participating in the class and may be withdrawn at the faculty member's discretion. [faculty members should be clear in their withdraw policy, if you do not withdraw students please note in appropriate sections].

**Student Withdrawals**

Students may withdraw from class at any time during the first 2/3 of the semester without instructor permission and without incurring any grade penalty. Please be sure to withdraw yourself by [withdrawal deadline date found in Academic

Calendar on TOCC website] if you do not expect to complete the class, otherwise you may receive an "F" grade.

### **Special Withdrawals (Y) Grade**

The "Y" grade is an administrative withdrawal given at the instructor's option when no other grade is deemed appropriate. Your instructor must file a form stating the specific rationale for awarding this grade. "Y" grades are discouraged since they often affect students negatively. Your instructor will not award a "Y" grade without a strong reason.

### **Equal Access Statement/Disability Accommodations**

Tohono O'odham Community College seeks to provide reasonable accommodations for qualified individuals with disabilities. The College will comply with all applicable regulations, and guidelines with respect to providing reasonable accommodations as required to ensure an equal educational opportunity. This process includes self-identifying as a student with a disability, providing supporting documentation of their disability, and being approved for services through the Disability Resources Office (DRO). It is the student's responsibility to make known to their instructor(s) the student's specific needs within the context of each class in order to receive appropriate accommodations. We will work together in order to develop an accommodation plan specifically designed to meet the individual student's requirements.

For more information or to request academic accommodations, please contact: Anthony Osborn, TOCC Disabilities Resource Coordinator, aosborn@tocc.edu, or 520-360-5044 for additional information and assistance.

### **Title IX**

Tohono O'odham Community College encourages each student to have the knowledge and skills to be an active bystander who intervenes when anyone is observed or being harassed or endangered by sexual violence. Sexual discrimination and sexual violence can undermine students' academic success and quality of life on campus and beyond. We encourage students who have experienced or witnessed any form of sexual misconduct to talk about their experience and seek the support they need.

Confidential support and academic advocacy can be found with: Student Services Title IX Coordinator/Counselor, Alberta Espinoza, M.Ed. located in I-We:mta Ki: Room 18. Phone 520-383-0033 email: aespinoza@tocc.edu

### **Conduct: Bias, Bullying, Discrimination and Harassment**

Tohono O'odham Community College faculty and staff are dedicated to creating a safe and supportive campus environment as a core value. Harassment based on age, class, color, culture, disability and ability, ethnicity, gender, gender identity and

expression, immigration status, marital status, political ideology, race, religion/spirituality, sex, sexual orientation, and tribal sovereign status will not be tolerated.

***DISCLAIMER:*** *This syllabus is designed to evolve and change throughout the semester based on class progress and interests. You will be notified of any changes as they occur.*