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- Summary -

Course Title	Reasoning with Functions
Course No.	Math 01124
CRN	42401
Class time and location	MW 5:00 – 6:40 p.m. Robinson 101A
Start/End Dates	September 1, 2021 – December 15, 2021
Term	Fall 2021

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- Instructor -

Name	Wayne Rulon
Email	rulon@rowan.edu
Office Hours	By Appointment Only

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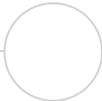
- Course Description -

This college level course is designed to prepare students to enter Calculus T&A (or precalculus) and succeed in coursework that requires a thorough knowledge of functions and algebraic reasoning. It provides students a strong foundation in functions and their behavior by using multiple representations and explicit covariational reasoning to investigate and explore quantities, their relationships, and how these relationships change. Additionally, this course provides students with the algebraic tools necessary to analyze a variety of function types.

- Objectives -

As a result of learning in this course, students will be able to

1. Manipulate, graph, and evaluate polynomial, exponential, and logarithmic functions.
2. Determine if a graph represents a function and if a function has an inverse. Find the inverse of monomial, exponential, logarithmic functions.
3. Apply these functions in word problems, rates of change, and find extrema.



- Course Materials -

- (Required) ALEKS access
 - Go to aleks.com, click the yellow button "Sign up now!", and enter class code:
 - **TLGP6-LLW3V.**

If you wish to have 2 weeks of access for free you can use the following Financial Aid Code: **8FA49-0ECBB-FD749-6131C**. Once the two weeks are up, you will be required to purchase the ALEKS program for around \$100 for the rest of the semester.

- (Required) Computer or tablet to access Aleks.
- (optional) Textbook: College Algebra & Trigonometry by Miller.
- (optional) You will need a scientific calculator for this class, and Aleks will provide one onscreen as needed for homework, quizzes, and tests. You may use a physical scientific calculator or a graphing calculator if you prefer. (If you decide to buy a calculator, you may want to buy a TI-84 or TI-inspire. These models are recommended by the Math Department for later courses.)



- Assignments and Grading -

Your course grade will consist of several assignments. See the table below. Correspondence between the points and letter grades: 93-100 A, 90-92 A-, 87-89 B+, 83-86 B, 80-82 B-, 77-79 C+, 73-76 C, 70-72 C-, 65-69 D+, 55-64 D, 50-54 D-, 0-49 F

Assignment	Percent of Grade	Date/Frequency
ALEKS Homework	20%	Throughout Semester
ALEKS Pie Progress	10%	Due by Final Exam

ALEKS Quizzes	20%	10 Quizzes Spread throughout Semester
ALEKS Knowledge Assessments Tests #'s 1-3	30%	Test 1: September 27 Test 2: October 27 Test 3: November 22
ALEKS Final Exam	20%	During Finals Week December 10 - 16

ALEKS: ALEKS is an artificial intelligence program that will tailor your homework and assessments to you! It will assess where you are with “Knowledge Checks” and it will give you a carousel full of topics that you are ready to learn! Go to aleks.com, click the yellow button "Sign up now!", and enter Class Code **TLGP6-LLW3V** to get started. As stated above, if you wish to have access to 2 weeks for free, use the Financial Aid Code: **8FA49-0ECBB-FD749-6131C**. This buys you some time if you don't immediately have the funds. However, once the two-week free trial period has expired, you will be required to purchase an access code for around \$100 for the rest of the semester. You do not need to buy any other course materials for this class. You can access the e-textbook within ALEKS.

ALEKS Homework: You will have homework due according to the schedule provided. This homework is all done within ALEKS. We will be moving quickly throughout the semester, so you will not be able to get extensions on these homework assignments. Please work ahead so you have plenty of time to ask me questions! If you miss an assignment and that topic is needed later, the topic will pop up in ALEKS to make sure you don't miss any course content (even if you miss a due date).

ALEKS Pie Chart: You will have a pie chart on the front page of ALEKS. As you take Knowledge Checks and make your way through the course content, you will see the pie chart percentage increase as you progress! You should strive for a 100% Pie Chart percentage by the end of the semester. As an extra incentive, your Pie Chart grade will give you up to 100 points toward your course grade! There is a lot of content to cover this semester, and I want to reward your effort for completing all the course topics.

Strive for 100% Pie Chart.

ALEKS Quizzes: There will be 10 quizzes throughout the semester. Again, see the schedule provided to you to know when they are assigned and due. After approximately 2 – 3 sections, there will be a 10-question quiz. You will have to complete the quiz on the day it is assigned. For every quiz assigned, there will be a portion of that class period (Roughly 30 minutes) to ask me any questions that you may have. In addition, you will be able to drop your lowest quiz grade. So really your quiz average will be based on your best 9 quizzes.

ALEKS Knowledge Checks and Test Grades: You will have several “Knowledge Checks” in Aleks to assess how much of the course content you have mastered. Do not use any resources during the knowledge checks: no calculators, friends, books, websites, apps. Just do your best!

- *Initial Knowledge Check:* this will be the first assignment you do in ALEKS. It's not going to affect your grade! It is only used to get a baseline for where you currently are.
- *Periodic Knowledge Checks:* these will pop up during several intervals to make sure you are remembering the topics. They are not graded, and only used as a check-up to see how you have retained what you have learned. Here's when you'll see periodic Knowledge Checks:
 - After 5 hours and 20 topics completed OR 10 hours spent in ALEKS
 - Not 24 hours before Scheduled Knowledge Check
- *Scheduled Knowledge Checks:* Tests 1-3 and the Final Exam are Scheduled Knowledge Checks in ALEKS. The format for these Scheduled Knowledge Checks are the same as all the others, but these will count toward your course grade. Tests 1-3 will each be worth 10% of your overall grade, and the Final Exam is worth 20% of your overall grade.
- For Test 1, you are expected to have mastered 20% of the course content at this point in the semester. Your grade on ALEKS will be given a percentage of the course content that you have mastered, say 18%. Your Test 1 points would then be: $18/20 = 90\%$.
- For Test 2, Test 3, and the Final Exam: you are expected to have mastered 50%, 75%, and 100% of the course content by the time you take these assessments, respectively. Your percentages will be calculated similarly to Test 1.

Attendance: You will meet with your instructor 2 times per week for ~ 100-minute class periods. All of sessions will be delivered in person at Robinson 101A. Attendance will be taken at each class period.



- Policies -

Late Work: We will be moving through the content very quickly, so there are **NO** extensions for ALEKS Homework. You must complete the homework assignments by the due date to get credit. Please work ahead so that you will be able to manage your workload when the semester starts to get busy.

Attendance Policy: Learning math can be challenging at times. Attendance in class is therefore required. You will be allowed no more than 3 absences during the semester. You will be penalized a partial letter grade (e.g. from B to B-) for your fourth absence, and one additional partial letter grade for each increment of 3 classes or a portion thereof (including lateness) that you miss from that point forward. If you miss a class, you are responsible to catch up on your own.

Make Up Policy: There will be no make-ups permitted for any homework, quiz, test, or final exam except in the case of excused absences. If an emergency arises and you cannot complete a homework, quiz, test or final exam, you should contact me as soon as possible to alert me to the situation so that I can make other arrangements. Verifiable documentation of the emergency is required and should be submitted immediately via email.

Assessment Security Policy: Under no circumstances is the use of internet-capable devices (such as phones, computers, smart watches, etc.), printed resources, or asking people for help allowed during online assessments. Also, you will have an on-screen calculator in ALEKS. All devices must be stowed away and out of sight for the duration of the assessment, and you may not access any books, notes, friends, or websites (other than ALEKS) during the assessments. Any student found using any materials during an assessment will not be allowed to complete the assessment, will receive a score of ZERO for the assessment, and will be reported to the Academic Integrity Review Board. Please copy and paste the link below to see the Rowan University Academic Integrity Policy.

Rowan University Diversity Statement

Rowan University promotes a diverse community that begins with students, faculty, staff and administration who respect each other and value each other's dignity. By identifying and removing barriers and fostering individual potential, Rowan will cultivate a community where all members can learn and grow. The Rowan University community is committed to a safe environment that encourages intellectual, academic, and social interaction and engagement across multiple intersections of identities.

At Rowan University, creating and maintaining a caring community that embraces diversity in its broadest sense is among the highest priorities.

The Office of Student Equity and Compliance

The Division of Diversity, Equity and Inclusion, Office of Student Equity & Compliance (OSEC) is located in Savitz Hall, Rm 203. The office plays a significant role in providing students support and protection under Title VI and Title IX. The mission of OSEC is to engage and educate the Rowan community on prevention, identification and reporting of all matters of discrimination, harassment and gender-based violence by developing, implementing and monitoring appropriate policies, procedures and practices designed to ensure compliance as well as thorough and equitable resolution of all complaints.

Rowan Universities Academic Integrity Policy

<https://confluence.rowan.edu/display/POLICY/Academic+Integrity+Policy>