



MA-110 Intermediate Algebra

Aimee Buckland
NORTH CENTRAL KANSAS TECHNICAL COLLEGE

COURSE INFORMATION

The concepts of fundamental operations with real and imaginary numbers, symbolism used in Algebra, solving and graphing equations, and applications of these concepts to word problems will be developed. The course is designed for students who have only one year of high school algebra, are inadequately prepared for College Algebra, or score in the prescribed range on the placement exam. Topics covered include number systems, linear equations and equalities, polynomials, exponents, rational expressions, and quadratic equations.

Credits: 3

Total Hours: 45

Pre/Corequisites:

- Prerequisite: Grade of C or better in MA-099 Basic Algebra or appropriate placement scores.

CLASS INFORMATION

Section Number:

Term: Fall Year: 2020 Start Date: 8/17/2020 End Date: 12/11/2020

Delivery Mode: Online

INSTRUCTOR

Aimee Buckland

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Office Phone: (785) 738-9022

Office Location: GENED-044 back of classroom

Office Hours: Tuesdays & Thursdays 1:30 pm - 4:00 pm; also available by appointment

TEXTBOOKS

Cengage Unlimited **ISBN:** 978-0-357-70001-3 (12 month) or 978-0-357-70003-7 (4 month). Includes:

Larson. *Intermediate Algebra: Algebra Within Reach*. Cengage. **Edition:** Sixth **ISBN:** 978-1-285-62921-6 (eBook).

Enhanced WebAssign.

SUPPLIES

- Graphing calculator with Matrix capability
- Paper and writing utensil. Required.

COURSE COMPETENCIES

1. Factor quadratic expressions, expressions of quadratic form, special forms, and factor by grouping.
2. Perform addition, subtraction, multiplication, and division on rational expressions.
3. Simplify complex fractions.
4. Apply the laws of exponents to simplify expressions containing rational exponents.
5. Apply the laws of radicals to perform addition, subtraction, and multiplication on expressions involving radicals. Rationalize denominators containing radicals.
6. Simplify radicals containing negative radicands. Perform arithmetic operations on complex numbers.
7. Evaluate functions using function notation.
8. Solve linear inequalities in one variable showing solutions both on the real number line and in interval notation.
9. Solve literal equations, including those that require factoring.
10. Solve systems of linear equations in two variables.
11. Solve equations by factoring and quadratic formula.
12. Solve equations containing rational expressions.
13. Solve equations involving radicals.
14. Solve linear absolute value equations and inequalities in one variable.
15. Develop and solve mathematical models including variation, mixture, motion, work, and geometrical applications.
16. Graph linear inequalities.
17. Graph quadratic functions.
18. Determine an equation of a line given either sufficient information (two points) or a particular condition (perpendicular to a given line, parallel to a given line through a specific point, through a specific point with a given slope, etc.).
19. Calculate the distance between two points.
20. Distinguish between functions and relations using the Vertical Line Test.
21. Identify the domain and range of a function given its graph.

GRADING INFORMATION

NCKTC Grading Scale

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

Instructor Grading

Grades will be determined by the following weights:

Discussions/Participation - 10%

Homework - 20%

Exams - 40%

Final Exam - 30%

The assessment requirement for this course is a comprehensive final exam, administered in the last week of the course.

NCK TECH COVID 19 MASK REQUIREMENT

All students in a classroom or lab setting will be required to wear a cloth face mask or disposable face mask. Students with a recognized disability who have an accommodation that prevents the wearing of a mask – please contact Jayme Owen at jowen@ncktc.edu or 785-738-9037 for student accommodations. If a student does not have a mask, one will be provided, and it must be in place at all times in the classroom or lab setting.

Disclaimer: NCK Tech, by requiring, and if needed, providing a mask, is not liable for any student who may contract the virus. The mask is simply an assist and not a guarantee. Students hereby release the College from any and all liability created by these guidelines, including providing a mask.

NCK TECH COVID 19 STATEMENT

NCK Tech values the health and well-being of all who are involved in higher education. In its classes, NCK Tech follows Center for Disease Control and Prevention (CDC), American College Health Association (ACHA), and Kansas Department of Health and Environment (KDHE) recommendations for protecting students and faculty members during the Coronavirus 2019 (COVID-19) pandemic. These recommendations to lower risk include limiting the number and length of interactions with others by scheduling hybrid, virtual, or restricted sizes of classes, activities, or events, with individuals spaced 6 feet apart and not sharing objects.

Changes and limitations specific to different class types, for example, lecture, lab, and hybrid classes, will be provided in class. In all class types and educational settings, NCK Tech faculty, staff, and students are required to wear approved face masks until further notice.

NCK Tech endorses:

- staying home or self-isolating when appropriate in respect to NCK Tech student, faculty, and staff self-screening questionnaires and KSDE quarantine recommendations
- frequent, thorough handwashing and covering of all coughs and sneezes
- using of masks based on NCK Tech mask requirements
- individual conduct consistent with these considerations

NCK Tech students with questions should contact Jayme Owen, Dean of Student Success for more information.

NCK TECH MISSION STATEMENT

North Central Kansas Technical College delivers applied, innovative and personalized education to empower learners, enrich lives, develop skilled professionals and strengthen economic systems.

Vision Statement

North Central Kansas Technical College is dedicated to being a leader in workforce development by maximizing value for students, employers and communities through educational excellence.

Core Values

Achieving EXCELLENCE with INTEGRITY through

DEDICATION

INNOVATION

COLLABORATION

COMMUNICATION

NCK TECH NON-DISCRIMINATION POLICY

NCK Tech is committed to nondiscrimination on the basis of race, color, gender, ethnic or national origin, sex, sexual orientation, gender identity, marital status, religion, age, ancestry, disability, military status, or veteran status in admission or access to, or treatment or employment in, its programs and activities. Further, it is the policy of the college to prohibit harassment (including sexual harassment and sexual violence) of students and employees. Any person having inquiries concerning the college's compliance with the regulations implementing Title VI, Title VII, Title IX, Section 504, and the Americans with Disabilities Act Amendments Act is directed to the VP of Student and Instructional Services (Section 504/ADA Compliance Officer and Title VI, Title VII, & Title IX Compliance Officer) at (785)738-9055, cisbell@ncktc.edu, or PO Box 507, 3033 US Hwy 24, Beloit, KS 67420.

NCK TECH TOBACCO USE POLICY

The use of tobacco products in any form and/or electronic cigarettes is prohibited in, or within ten (10) feet of any building owned, leased, or rented by the College.

NCK TECH WEAPONS POLICY

Individuals who choose to carry concealed handguns **are solely responsible to do so in a safe and secure manner in strict conformity with state and federal laws and NCK Tech weapons policy.** Individuals must be 21 years of age to carry concealed handguns.

Safety measures outlined in the NCK Tech weapons policy specify that a concealed handgun:

- Must be under the constant control of the carrier.
- Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the carrier's custody and control and within immediate reach of the individual.
- Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position
- Must have the safety on, and have no round in the chamber.

Lockers, toolboxes, and/or tool bags are not approved storage devices in accordance with NCK Tech Policy.

OVERVIEW FOR STUDENTS WITH DISABILITIES

NCK Tech is dedicated to providing equal access and opportunity to all campus programs and services for students with disabilities. We are committed to providing reasonable accommodations in accordance with applicable state and federal laws including, but not limited to, Section 504 and 508 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. We strive to create a safe, respectful and inclusive environment and promote awareness, knowledge and self-advocacy.

NCK Tech acknowledges that traditional methods, programs and services are not always appropriate or sufficient to accommodate the limitations experienced by some qualified persons with disabilities. When a student's disability prevents him/her from fulfilling a course requirement through conventional procedures, consideration will be given to alternatives, **keeping in mind that academic standards must be maintained.**

Services are provided through Student Accessibility Services (SAS) staff located in the Student Success Center, on the Beloit Campus, and in Student Services, on the Hays Campus.

- Director of Learning Services, may be reached at [1-785-738-9020](tel:1-785-738-9020); or by mail at [NCK Technical College, 3033 US Hwy 24, Beloit, KS 67420](mailto:Director of Learning Services).

Student Responsibilities

Students requesting support services will need to register ("self-disclose" and complete Student Accessibility Services Intake and Consent Form), provide appropriate documentation (if available) including how the disability affects academic performance and suggested accommodations, and communicate with the Director of Learning Services as part of the interactive process to create an *Educational Accommodation Plan* that will notify Instructors of approved accommodations, services and/or auxiliary aids.

Students are encouraged to make timely and appropriate disclosures and requests, at least two weeks in advance of a course, program, or activity for which an accommodation is requested (or as soon as realistically possible) to allow adequate time for accommodation services to be set in place.

Accommodations, Academic Support Services, or Auxiliary Aids

Reasonable accommodations including academic support services and auxiliary aids are provided to allow students with disabilities an equal opportunity to participate in and benefit from our educational programs. Accommodations will be provided on a case-by-case basis determined by student request, documentation, intake interview, Educational Accommodation Plan team, and assessment of individual needs and course requirements.

Reasonable testing accommodations may include, but are not limited to:

- Extended testing time
- Reduced distraction testing environment
- Test reader and/or scribe
- Use of calculator

Academic support services/auxiliary aids may include, but are not limited to:

- Note-taking assistance (second set of notes, power point slides, or other visual aids provided)
- Sign Language Interpreter
- Preferential seating in the classroom
- Large print exams, handouts, signs, etc.
- Telecommunications devices
- Use of Assistive Technology

Accommodations may not fundamentally alter the nature of the program or activity, lower academic standards, present undue financial or administrative burden on the college, or pose a threat to others or public safety.

Additionally, some accommodations and services cannot be provided, such as personal devices or assistance with personal services.

Auxiliary aids may be available through a variety of sources available to individual students. The student may make a request in obtaining specialized support services from other resources such as Vocational Rehabilitation Services (VR), Recordings for the Blind, Kansas Talking Book Service, etc. For example, Vocational Rehabilitation may fund such items as transportation to the institution, tuition, textbooks, hearing aids, and other individually prescribed medical devices.

If at any time throughout the academic year, a student feels that the agreed upon accommodations are not being followed or that alternate accommodations need to be provided, the student should notify Student Accessibility Services (SAS) staff. NCK Tech is committed to student success; however, we do not require students to use accommodations. The decision of when to utilize approved accommodations or services is up to the student. Integration, self-advocacy and individual responsibility are promoted and expected.

Grievance Procedure

Any student who believes he or she has been subjected to discrimination on the basis of disability or has been denied access or accommodations, shall have the right to invoke the Grievance Procedure.

Students are encouraged to first discuss their concerns with SAS. An attempt will be made to resolve the issue(s) causing concern by assisting the student in discussions with the person(s) involved. Most situations are positively resolved through this process. If the student does not feel the concern or complaint has been appropriately resolved, he or she should contact the [Vice President of Student and Instructional Services](#) at 1-800-658-4655 or PO Box 507, 3033 US Hwy 24, Beloit, KS 67420, where grievance procedures are filed for all students, including students with disabilities.

If the complaint is not resolved at the College level, a student may choose to file a complaint with the [Office for Civil Rights](#) at 1-816-268-0550 or U.S. Department of Education, One Petticoat Lane, 1010 Walnut Street, Suite 320, Kansas City, MO 64106.

Confidentiality

All information regarding a student's disability is confidential. All documentation will remain separate from academic records and will not be released to an individual or source external to NCK Tech without the student's written consent. In order to provide effective services, it may be necessary to communicate limited information on a need-to-know basis regarding disability-related needs to NCK Tech faculty and/or staff.

REASONABLE SUSPICION

If reasonable suspicion of substance abuse exists regarding an employee or student based on objective criteria (including, but not limited to, behavior, appearance, demeanor, detection of the odor of alcohol or any controlled substance), the employee or student will be requested to consent to drug testing performed by NCK Tech's contract vendor at the expense of the college.

- A. A college administrator (or their designee) shall drive the employee or student to the vendor's site for drug testing and shall return the employee or student to his/her residence (or arrange for transportation) following the testing.

- B. Test results shall be sent directly to the college administrator, with a copy also sent to the employee or student. All test results will be considered confidential, access to the results will be limited to institutional personnel who have a legitimate need-to-know.
- C. In the event of a positive test result, the employee or student may request a retest of the sample at the employee or student's expense. The request must be submitted within 24 hours.
- D. Positive results for any illegal drugs, or prescription drugs (either not prescribed for the employee or student, or at levels above the prescribed dosage), or blood alcohol level of 0.04 or greater shall be grounds for disciplinary action, up to and including termination or expulsion.
- E. Refusal to provide a specimen for this testing shall be treated as a positive drug test result.
- F. Test results or specimens that have been determined to be altered by the employee or student shall be grounds for disciplinary action, up to and including termination or expulsion.
- G. If the employee or student tests positive for an authorized prescription drug which may impair his/her performance or judgment, the employee or student may not be permitted to participate in college activities until he/she provides a doctor's release.

RIGHT TO MODIFY THE SYLLABUS

The instructor reserves the right to modify the syllabus during the semester. Students will be given advanced notice if a change would occur.

SCHOLASTIC DISHONESTY

Membership in the NCK Tech learning community imposes upon the student a variety of commitments, obligations, and responsibilities. It is the policy of this college to impose sanctions on students who misrepresent their academic work. Appropriate classroom instructors or other designated persons will select these sanctions consistent with the seriousness of the violation and related considerations.

Examples of scholastic dishonesty include but are not limited to:

- Plagiarism: i.e. taking someone else's intellectual work and presenting it as one's own. Each department set standards of attribution. Faculty will include disciplinary or class-specific definitions in course syllabi.
- Cheating is unacceptable in any form. Examples include consultation of books, library materials, notes or intentional observation of another student's test on paper or a computer screen; accessing another student's answers from an exam to be given or in progress; submission of falsified data; alteration of exams or other academic exercises; and collaboration on projects where collaboration is forbidden.
- Falsification, forgery or alteration of any documents pertaining to assignments and examinations.
- Students who participate in, or assist with, cheating or plagiarism will also be in violation of this policy.

Classroom instructors and/or administrators will assess sanctions for violations of this policy. The seriousness of the violation will dictate the severity of the sanction imposed. Academic sanctions may include but are not limited to any of the following:

1. verbal or written warning
2. lowering of grade for an assignment
3. lowering of term grade

Administrative sanctions may include but are not limited to either of the following

1. suspension from the College
2. dismissal from the College

NCKTC INCLEMENT WEATHER POLICY

School dismissals and cancellations will be announced using the NCKTC RAVE Alert system. Local media will also be notified.

NCKTC KANSAS CORE OUTCOME STATEMENT

The learning outcomes detailed in this syllabus meet, or exceed, the learning outcomes specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

WITHDRAWAL POLICY

The last official day a student can withdraw from a General Education class is October 23, 2020. A grade of "WP" will appear on the transcript if a student withdraws with a passing grade. A grade of "WF" will appear on the transcript if a student withdraws with a failing grade. Withdrawal forms are available in the Registrar's Office at the Administration Building, or by contacting the Registrar. Withdrawals are not effective until completed forms are on file in the registrar's office. If proper withdrawal procedures are not followed, the resulting grade will be an "F".

HOMEWORK POLICIES

Late Work: Homework is due at the time and date indicated on Enhanced WebAssign. Homework will be due on Sunday evenings at 11:59 pm. *Late work will not be accepted*, and assignments will not be reopened for completion past the due date.

Make-up Work: In case of emergency, students should contact the instructor for make-up work. In an online course, you have access to work in advance, and make-up work will only be given at instructor discretion.

Showing Work: Showing work is very important in any math course, not only for the instructor, but also the student. Being able to see the steps taken in a process helps both parties identify mistakes, and allows the instructor to award partial credit based on that work. For this course, showing your work is **required**, even if a calculator is used. No credit will be awarded to problems if only the answer is provided. This partial credit will be awarded based on instructor discretion and quality of work received.

CALCULATOR POLICY

You will need a graphing calculator with matrix capabilities for this course. Recommended model: TI 84. Calculators are able to be used on exams. Cell phone calculators will not be permitted by proctors.

ONLINE - ATTENDANCE

In an online course, you are not required to show-up in at a particular location and at a particular time. However, you are expected to show-up online.

This course is designed to be an active and interactive course in which you contribute and respond to the contributions of others. You should plan to log on and participate in the course at least 3-5 times each week. I will measure this by recording the date of each entry you make to the system--a response to an assignment, an entry into the threaded discussion, submission of an assignment, or participation in group work. (Though you are welcome to participate in the CyberCafe as frequently as you would like, this does not qualify as "attending and participating" in the course.)

Please do not "drop out" for a period of time and then expect to "drop back in." If your business/personal obligations or illness require you to be absent for a week, please contact me and arrange to make up the work you will miss. Since you can access this online course from anywhere in the world, there should be little likelihood "absence."

ONLINE - COMMUNICATION

In a cyber community, you present yourself and learn about others through written words. You don't need to be a prize-winning author or poet to successfully communicate in an online community, however you do want to present yourself in a positive light and to communicate your thoughts and ideas effectively.

The following guidelines will help you ensure that you are properly understood, get your points across effectively, avoid getting anybody annoyed, and avoid looking like a "beginner" on the net.

1. Format your posting so that it is easy to read. Use short paragraphs separated by blank lines. Don't write everything in uppercase (capital) letters. It is more difficult to read and, even worse, in an online environment it means you are SHOUTING.
2. Be brief. Plan your messages ahead so that you don't ramble.
3. Be clear. Don't use abbreviations or acronyms that others may not understand. Read your messages over before sending them.
4. Check your spelling. People will not take you seriously, no matter how brilliant your ideas, if your writing is full of misspellings. Use your computer's Spell Check features; then read over what you have written to catch errors that Spell Check misses.
5. When you are interacting with others online, remember that things may "sound" harsh or less friendly when the reader cannot see your smile or the twinkle in your eye. Read your messages over to be sure they are diplomatic and polite.

ONLINE - CORE ABILITIES

Although the primary setting for learning in this course is online, you are a member of a learning community just as you would be in a classroom course. As members of an online learning community, we share responsibility for creating and maintaining an environment that communicates mutual respect, supports learning for all members, and provides opportunities for all members of the community to learn from one another. Throughout this learning experience we will strive to build the following online learning core abilities:

Learn effectively

You will know you are practicing effective online learning habits:

- o you actively engage in the online learning community
- o you use the syllabus, learning plans, performance assessment tasks, and learning materials to guide learning
- o you use online learning tools such as Profiles, Orientation, Learning Plans, Discussion, Chat, In/Out Box, Workspace, GradeBook, Help Desk
- o you take responsibility for self as a learner
- o you use resources that are provided and find additional resources to meet learning needs
- o you produce evidence of learning that meets the performance expectations

Work cooperatively

You will know you are effectively contributing to the online learning community when:

- o you complete assigned tasks for team/group work
- o you use collaborative strategies to complete tasks
- o you exchange information, ideas, and opinions in group and/or class discussions
- o you actively provide feedback through Peer Review process

Act responsibly

You will know you are taking responsibility for your online learning when:

- o you complete assigned tasks according to prescribed deadlines
- o you complete assigned tasks according to prescribed criteria
- o you are an active participant in your cyber community
- o you observe the rules of netiquette

Think critically and creatively

You will know you are thinking critically and creatively when:

- o you respect other points of view
- o you apply the principles and strategies of purposeful, organized thinking to problem solving and decision making

- o you distinguish between fact and opinion
- o your contributions to online discussions show original thought
- o you synthesize information from a variety of sources

ONLINE - CREATING A LEARNING ENVIRONMENT AT HOME

What makes a particular setting or space a good place to learn? Think about classrooms or training rooms that have worked well for you. Chances are they provided good lighting, comfortable seating, ample workspace, good ventilation and a comfortable temperature, minimal distractions, and content-related visual or audio cues.

When you attend class in a classroom, the school and your instructor create a good learning environment. When attend class online, you need to create a good learning environment for yourself-most likely in your home. Don't underestimate the importance of your study surroundings. The time you spend creating surroundings that support learning will be well invested.

Here are some tips to help you get started:

- Select a space in which you can set up your computer (with access to your internet connection) and your tools for learning (books, papers, pencils and pens, calendar) and (if possible) leave them undisturbed between sessions.
- Keep the area well ventilated and at a temperature that works for you-cool enough so that you don't feel sleepy, but warm enough so that you are comfortable.
- Provide yourself with a comfortable desk or work chair (preferably adjustable; not an easy chair) and ample work surface (table space) at a comfortable height.
- Ensure that you have good lighting that does not cause a glare on your computer screen, but still allows you to read comfortably.
- Keep your study space as free from distractions as possible (television, distracting music, conversations, ringing phones).
- Add props to make your learning space more interesting and to help you focus on the subject matter. You might use posters, pictures, mind maps, geographic maps, drawings, charts, etc. that are related to the subject matter you are studying.
- Play music that enhances learning. Research shows that classical music written by classical composers such as Bach, Brahms, Handel, Mozart, Vivaldi, Mendelssohn, Haydn, Tchaikovsky, and Corelli, can enhance the ability of many students to concentrate and think. You can purchase classical music CDs or tapes very reasonably at any music store, many book story chains, and online.
- Have fresh drinking water and nutritious snacks nearby.

ONLINE - EMAIL GUIDELINES

Assume that mail on the Internet is not secure. Never put in a mail message anything you would not put on a postcard.

Respect the copyright on material that you reproduce. Almost every country has copyright laws.

If you are forwarding or re-posting a message you've received, do not change the wording. If the message was a personal message to you and you are re-posting to a group, you should ask permission first. You may shorten the message and quote only relevant parts, but be sure you give proper attribution.

A good rule of thumb: Be conservative in what you send and liberal in what you receive. You should not send heated messages (we call these "flames") even if you are provoked. On the other hand, you shouldn't be surprised if you get flamed and it's prudent not to respond to flames.

In general, it's a good idea to at least check all your mail subjects before responding to a message. Sometimes a person who asks you for help (or clarification) will send another message which effectively says "Never Mind". Also make sure that any message you respond to was directed to you. You might be cc:ed rather than the primary recipient.

Make things easy for the recipient. Many mailers strip header information that includes your return address. In order to ensure that people know who you are, be sure to include a line or two at the end of your message with contact information. You can create this file ahead of time and add it to the end of your messages. (Some

mailers do this automatically.) In Internet parlance, this is known as a ".sig" or "signature" file. Your .sig file takes the place of your business card. (And you can have more than one to apply in different circumstances.) Watch cc's when replying. Don't continue to include people if the messages have become a 2-way conversation.

In general, most people who use the Internet don't have time to answer general questions about the Internet and its workings. Don't send unsolicited mail asking for information to people whose names you might have seen on mailing lists.

Be especially careful with sarcasm.

Use mixed case. UPPER CASE LOOKS AS IF YOU'RE SHOUTING.

Use smileys to indicate tone of voice, but use them sparingly. :-) is an example of a smiley (Look sideways). Don't assume that the inclusion of a smiley will make the recipient happy with what you say or wipe out an otherwise insulting comment.

Wait overnight to send emotional responses to messages.

Be brief without being overly terse. When replying to a message, include enough original material to be understood but no more. It is extremely bad form to simply reply to a message by including the entire previous message: edit out all the irrelevant material.

Mail should have a subject heading which reflects the content of the message.

If you include a signature keep it short. Rule of thumb is no longer than 4 lines. Remember that many people pay for connectivity by the minute, and the longer your message is, the more they pay.

If you think the importance of a message justifies it, immediately reply briefly to an e-mail message to let the sender know you got it, even if you will send a longer reply later.

Be careful with slang or local acronyms. .

This information was abstracted from Netiquette Guidelines offered for unlimited distribution on the Delaware Technical Community College website <<http://www.dtcc.edu/cs/rfc1855.html>>.

ONLINE - INSTRUCTOR ROLE AND RESPONSIBILITIES

As your instructor, I am responsible for providing an environment in which an opportunity for learning exists. I will work with you and assist you in your quest for understanding. I cannot make you learn anything. As a resource person and facilitator, I will organize the course, schedule learning activities, and evaluate the short-run "products" of your learning process. Recognizing that even asynchronous online communication is time sensitive, I will monitor threaded discussions and respond to queries within 48 hours of the time they were posted. Since the Writing and Thinking Skills and Individual Reflections are significant pieces of writing, it may take a little longer to assess them. I will be giving your work, as well as that of your fellow learners, careful consideration.

ONLINE - LEARNER ROLE AND RESPONSIBILITIES

You are an adult learner and as such you are responsible for your own learning. No one else can be a "stand in" for you in the learning process. You will be held accountable for all assigned activities. You matter and what you do does make a difference. You will have an opportunity to share your unique ideas and experiences with your student peers and instructor. The form and content of your participation will determine the level of achievement, satisfaction, and enjoyment that you experience. Because others are depending on you to keep the course moving, you have an obligation to meet deadlines for completing assignments and postings.

SCHEDULE

Date/Session	Week Activities	Competencies
Week 1 // August 17 – August 23	Syllabus/Quiz Introduction Discussion Board Chapter 1	Solve linear inequalities in one variable showing solutions both on the real number line and in interval notation. Calculate the distance between two points.
Week 2 // August 24 – August 30	Chapter 2	Solve literal equations, including those that require factoring. Solve linear absolute value equations and inequalities in one variable. Develop and solve mathematical models including variation, mixture, motion, work, and geometrical applications.
Week 3 // August 31 – September 6	Chapter 3	Evaluate functions using function notation. Solve literal equations, including those that require factoring. Graph linear inequalities. Determine an equation of a line given either sufficient information (two points) or a particular condition (perpendicular to a given line, parallel to a given line through a specific point, through a specific point with a given slope, etc.). Distinguish between functions and relations using the Vertical Line Test. Identify the domain and range of a function given its graph.
Week 4 // September 7 - September 13	Review Chapters 1-3 Exam over Chapters 1-3	Evaluate functions using function notation. Solve linear inequalities in one variable showing solutions both on the real number line and in interval notation. Solve literal equations, including those that require factoring. Solve linear absolute value equations and inequalities in one variable. Develop and solve mathematical models including variation, mixture, motion, work, and geometrical applications. Graph linear inequalities. Determine an equation of a line given either sufficient information (two points) or a particular condition (perpendicular to a given line, parallel to a given line through a specific point, through a specific point with a given slope, etc.). Calculate the distance between two points. Distinguish between functions and relations using the Vertical Line Test. Identify the domain and range of a function given its graph.
Week 5 // September 14 – September 20	Chapter 4	Solve systems of linear equations in two variables. Graph linear inequalities.
Week 6 // September 21 - September 27	Chapter 5	Factor quadratic expressions, expressions of quadratic form, special forms, and factor by grouping. Apply the laws of exponents to simplify expressions containing rational exponents.
Week 7 // September 28 – October 4	Chapter 6	Perform addition, subtraction, multiplication, and division on rational expressions. Simplify complex fractions. Solve equations containing rational expressions. Develop and solve mathematical models including variation, mixture, motion, work, and geometrical applications.
Week 8 // October 5 - October 11	Review Chapters 4-6 Exam over Chapters 4-6	Factor quadratic expressions, expressions of quadratic form, special forms, and factor by grouping. Perform addition, subtraction, multiplication, and division on rational expressions. Simplify complex fractions. Apply the laws of exponents to simplify expressions containing rational exponents. Solve systems of linear equations in two variables. Solve equations containing rational expressions. Develop and solve mathematical models including variation, mixture, motion, work, and geometrical applications. Graph linear inequalities.

Date/Session	Week Activities	Competencies
Week 9 // October 12 - October 18	Chapter 7	Apply the laws of exponents to simplify expressions containing rational exponents. Apply the laws of radicals to perform addition, subtraction, and multiplication on expressions involving radicals. Rationalize denominators containing radicals. Simplify radicals containing negative radicands. Perform arithmetic operations on complex numbers. Solve equations involving radicals.
Week 10 // October 19 - October 25	Chapter 8	Solve equations by factoring and quadratic formula. Graph quadratic functions.
Week 11 // October 26 – November 1	Chapter 9	Apply the laws of exponents to simplify expressions containing rational exponents. Distinguish between functions and relations using the Vertical Line Test. Identify the domain and range of a function given its graph.
Week 12 // November 2 – November 8	Review Chapters 7-9 Exam over Chapters 7-9	Apply the laws of exponents to simplify expressions containing rational exponents. Apply the laws of radicals to perform addition, subtraction, and multiplication on expressions involving radicals. Rationalize denominators containing radicals. Simplify radicals containing negative radicands. Perform arithmetic operations on complex numbers. Solve equations by factoring and quadratic formula. Solve equations involving radicals. Graph quadratic functions. Distinguish between functions and relations using the Vertical Line Test. Identify the domain and range of a function given its graph.
Week 13 // November 9 – November 15	Chapter 10	Develop and solve mathematical models including variation, mixture, motion, work, and geometrical applications. Graph quadratic functions. Identify the domain and range of a function given its graph.
Week 14 // November 16 – November 22	Review for Final Exam	Factor quadratic expressions, expressions of quadratic form, special forms, and factor by grouping. Perform addition, subtraction, multiplication, and division on rational expressions. Simplify complex fractions. Apply the laws of exponents to simplify expressions containing rational exponents. Apply the laws of radicals to perform addition, subtraction, and multiplication on expressions involving radicals. Rationalize denominators containing radicals. Simplify radicals containing negative radicands. Perform arithmetic operations on complex numbers. Evaluate functions using function notation. Solve linear inequalities in one variable showing solutions both on the real number line and in interval notation. Solve literal equations, including those that require factoring. Solve systems of linear equations in two variables. Solve equations by factoring and quadratic formula. Solve equations containing rational expressions. Solve equations involving radicals. Solve linear absolute value equations and inequalities in one variable. Develop and solve mathematical models including variation, mixture, motion, work, and geometrical applications. Graph linear inequalities. Graph quadratic functions. Determine an equation of a line given either sufficient information (two points) or a particular condition (perpendicular to a given line, parallel to a given line through a specific point, through a specific point with a given slope, etc.). Calculate the distance between two points. Distinguish between functions and relations using the Vertical Line Test. Identify the domain and range of a function given its graph.

Date/Session	Week Activities	Competencies
Week 15 // November 23 – November 29	Fall Break – College Closed Nov. 25 – Nov. 29	
Week 16 // November 30 – December 6	Final Exam <i>**Complete Final Exam by Dec. 6th 12:59 PM**</i>	Factor quadratic expressions, expressions of quadratic form, special forms, and factor by grouping. Perform addition, subtraction, multiplication, and division on rational expressions. Simplify complex fractions. Apply the laws of exponents to simplify expressions containing rational exponents. Apply the laws of radicals to perform addition, subtraction, and multiplication on expressions involving radicals. Rationalize denominators containing radicals. Simplify radicals containing negative radicands. Perform arithmetic operations on complex numbers. Evaluate functions using function notation. Solve linear inequalities in one variable showing solutions both on the real number line and in interval notation. Solve literal equations, including those that require factoring. Solve systems of linear equations in two variables. Solve equations by factoring and quadratic formula. Solve equations containing rational expressions. Solve equations involving radicals. Solve linear absolute value equations and inequalities in one variable. Develop and solve mathematical models including variation, mixture, motion, work, and geometrical applications. Graph linear inequalities. Graph quadratic functions. Determine an equation of a line given either sufficient information (two points) or a particular condition (perpendicular to a given line, parallel to a given line through a specific point, through a specific point with a given slope, etc.). Calculate the distance between two points. Distinguish between functions and relations using the Vertical Line Test. Identify the domain and range of a function given its graph.
Week 17 // December 7 – December 11	Discussion Board Post	