LEXINGTON HIGH SCHOOL
TECHNICAL MATH SYLLABUS 2023-2024

Instructor: Mrs. Peg Fisher **School Hours**: 7:45 – 3:45 **Planning Period:** 10:32 a.m. – 11:17 a.m.

Room: 122   **E-mail Address:** peg.fisher@lexschools.org   **School Phone:** 324-4691 ext. 2122

Prerequisites: MAPS score of 225 (Semester 1) or 234 (Semester 2)

Dual Credit with Lexington High School and Math 1020 Technical Math (3 credit hours) will be issued at successful completion by Central Community College.

Suggested Materials:
- iPad (to be brought to class every day unless otherwise stated)
- Paper
- Pencil w/eraser
- Composition Notebook
- A positive attitude – "If there were one word that could be used to describe a successful person, that one word would be ATTITUDE."— Bart Starr

Grade Scales:
Lexington High School
A: 93-97/A+: 98-100   B: 85-89/B+: 90-92   C: 77-81/C+: 82-84   D: 70-73/D+:74-76   F: Below 70
Central Community College
A+: 98-100/A: 90-97   B+: 87-89/B: 80-86   C+: 77-79/C: 70 -76   D+: 67-69/D:60-66   F: Below 60

Work will include online homework, quizzes/interactive reading assignments and exams.
Grades will be divided among the following categories:

    Homework – 10%
    Quizzes/Interactive Reading Assignments – 15%
    Exams - 75%
    Semester Exam – 10% of Semester grade
— *1st Semester: Quarter 1 = 45% / Quarter 2 = 45% / 1st Semester Test = 10%*
— *2nd Semester: Quarter 3 = 45% / Quarter 4 = 45% / 2nd Semester Test = 10%*

Homework: Each section within a module has a homework assignment. The homework in each section is required after the reading assignment is completed unless the module pretest or quiz had a score of at least 80%.

Quizzes/Interactive Reading Assignments: Each section within a module starts with an optional quiz. There is only one attempt at each quiz. A score of at least 80% on a quiz will allow a student to move to the next section in the module. If an 80% is not achieved, the student will proceed to the section's interactive reading assignment.

Exams will be given over each Module.

A Semester Test will be given each semester. It will cover the content from only that semester. Semester tests cannot be made-up.

Absences: An absent student will have one day plus the number of days missed to turn in homework. A student who misses the day of a test will be required to make up the test the day he/she returns to class. If a student misses the day before the test and the test day, he/she will have the number of days missed to make up the test. Please communicate with me if other arrangements are necessary.

Class Rules and Expectations:

In order to maintain a smoothly running and efficient classroom in which everyone has a chance to succeed, it is expected that you do the following while in class.

- Be enthusiastic and make an effort to learn the material being taught
- Be in your seat with all materials ready when the bell rings
- Be polite and respect the right of the teacher to teach, others to learn, and respect the property of the school and others
- No eating or drinking other than water
- Remain seated until you are dismissed by the teacher
- Scheduling make-up for any work missed is YOUR responsibility

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(Please cut on the above line and return signed portion to Mrs. Fisher)

"I have read the syllabus and thoroughly understand with great detail the expectations, rules, and procedures that are expected of me as a student enrolled in this course. I realize that I am responsible for all rules, regulations, procedures, and course requirements set forth in all classes, the LHS student handbook, the LPS student & parent handbook, and the LHS supplement, and I will be held accountable for the contents of this class and supporting documents."

_____   _____

Student Name (print)   Student Signature

Date _____

"I have read thoroughly the contents of this syllabus and discussed with my child the expectations of him/her in this course."

_____ Date _____

Parent / Guardian Signature

THE NEBRASKA MATH READINESS PROJECT

PERSISTENCE, RETENTION, COMPLETION, SUCCESS

Syllabus: Course Introduction

Title: Nebraska Math Readiness Project: Level 1/Tech Math

Class Begins: August 9, 2023

Class Ends: May 3, 2024

MyLab Math Addresses:

https://mlm.pearson.com

or

https://tinyurl.com/NMRPPearsonMLM

Instructor Name: Mrs. Peg Fisher

Instructor Email: peg.fisher@lexschools.org

MyLab Math Tech Support: https://support.pearson.com/getsupport/s/

To locate all types of support and frequently asked questions, click on View More

underneath the appropriate user.

Syllabus: Course Descriptions

Level I: This course presents basic computational skills for either review or initial mastery by the students. Topics include fractions, decimals, the solutions of ratio, proportion, and percent problems, operations with integers, and basic study skills for mathematics problem-solving and estimation. Topics may also include geometry, measurement, and basic algebraic concepts.

Tech Math: This course provides the math skills required in career/technical fields.

The course includes a review of arithmetic operations, exponents, algebraic
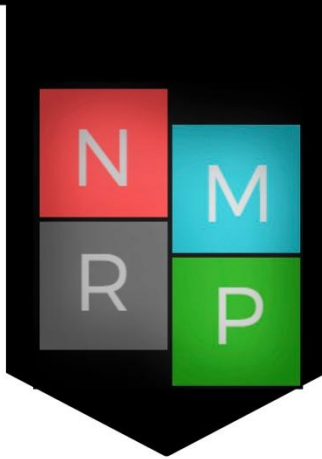
operations, and right triangle trigonometry with emphasis placed applications.

Syllabus: Course Prerequisites

Student Criteria:

1. Scored between 13-18/19 on the ACT Math exam or Pre-ACT Math exam

2. Scored between 225-239/242 on district MAP (NWEA) math

3. Accuplacer scores that would place students into foundations level math courses at the community college

4. Appropriate scores on other district assessments

5. Overall high school GPA of 3.0 or lower

6. Overall high school math GPA between 2.0 and 3.25

7. Teacher recommendation

Syllabus: Course Objectives

Level I:

1. Perform all operations of mathematics using fractions.

2. Perform all operations of mathematics using decimals.

3. Solve problems that involve ratio and proportion.

4. Understand percent notation and its relationship to decimals and fractions, and solve percent equations and their common applications.

5. Perform operations with integers.

Tech Math:

1. Apply arithmetic properties.

2. Apply measurement concepts to real-world applications.

3. Apply ratios and proportions to problem-solving for technical applications.

4. Apply formula manipulation and evaluation for problem solving for unknown values.

5. Apply geometric formulas and concepts to problem solving of technical applications.

6. Apply right triangle relationships to problem solving of technical applications.

THE NEBRASKA MATH READINESS PROJECT

PERSISTENCE, RETENTION, COMPLETION, SUCCESS

Syllabus: Course Structure and Required Materials

The daily class period will consist of students working on their individual study plan to complete the course in one year (for traditional schedule) or one semester (for block schedule). Students have the option of finishing early or progressing faster to complete additional levels within the course.

Required Materials:

• Students need to have strong computer skills.

• Online Textbook: An eBook for this course will be provided to students free of charge.

• Notebook: Students are required to maintain a notebook of their written work for all homework assignments, quizzes, pretests, exams, and assessments.

• Ear buds: Students will need to obtain ear buds for use in the classroom to listen to instructional videos.

• Calculators will be allowed for student use on all activities within certain modules. Refer to your instructor prior to using a calculator.

THE NEBRASKA MATH READINESS PROJECT

PERSISTENCE, RETENTION, COMPLETION, SUCCESS

Syllabus: Computer Requirements and Assessment of Student Work

Version	Operating System	Permitted Browsers	Version	Operating System	Permitted Browsers	Version	Operating System	Permitted Browsers
Windows	Windows 10	Chrome 63 or newer / Firefox 70 or newer / Microsoft Edge	OS X	OS X 10.14	Safari 14 / Safari 13 / Safari 12 / Chrome 63 or newer / Fireforx 70 or newer	iOS	iOS 11	Safari 11
	Windows 7	Chrome 63 or newer / Firefox 70 or newer					iOS 11.4	Chrome Mobile 46 or newer
							iOS 12	
	Windows 11	Safari 14 / Chrome 63 or newer / Firefox 70 or newer / Microsoft Edge		OS X 10.15	Safari 16 / Safari 14 / Safari 13 / Chrome 63 or newer / Fireforx 70 or newer		iOS 12.2	Safari 12
							iOS 12.4	Chrome Mobile 46 or newer
Chrome OS	Chrome OS	Chrome 63 or newer					iOS 13	Safari 13 / Chrome Mobile 46 or newer
Android	Android 7			OS X 11.0			iOS 14	Safari 14 / Chrome Mobile 46 or newer
	Android 8			OS X 11.1				
	Android 9			OS X 10.16			iOS 15	Safari 15
	Android 10			OS X 11.2	Safari 14		iOS 15.3	Chrome Mobile 46 or newer
	Android 11			OS X 11.3	Chrome 63 or newer		iOS 15.6	Safari 15
	Android 12			OS X 11.4	Fireforx 70 or newer		iOS 15.7	Safari 16 or newer / Safari 15
	Android 13	Chrome Mobile 46 or newer					iOS 16	Safari 16.4 or newer
				OS X 12.5	Safari 16 or newer / Safari 15 / Chrome 63 or newer / Firefox 70 or newer		iOS 16.4	Safari 16 or newer
				OS X 12.6				
				OS X 13.1	Safari 16.4 or newer / Safari 16 or newer / Safari 15 / Chrome 63 or newer / Firefox 70 or newer			
				OS X 13.3	Safari 16.4 or newer / Safari 16 or newer / Chrome 63 or newer / Firefox 70 or newer			

Assessment of Student Work:

Students will work in MyLab Math and progress through the modules as material is mastered. Each level is divided into modules that serve as a collection of related math items. Each module is further divided into sections that highlight specific topics within math.

THE NEBRASKA MATH READINESS PROJECT

PERSISTENCE, RETENTION, COMPLETION, SUCCESS

Syllabus: Assessment of Student Work

Level Pretest: A pretest will be given at the beginning of each level. There is only one attempt at each level pretest. A score of 80% or higher on a pretest will allow a student to move to the next higher level. If the score of 80% or higher is not achieved, the student will proceed to the current level and take the first pretest in the module. Level pretests have a 90-minute time limit. A student can exit a pretest and finish it later.

Pretest: A pretest will be given at the beginning of each module. There is only one attempt at each pretest. A score of at least 80% on a pretest will allow a student to move to the next module. If an 80% is not achieved, the student will proceed to the quiz, the interactive reading assignment, and the homework. The problems in the homework will be based on the questions not answered correctly in the pretest. Pretests have a 90-minute time limit. A student can exit a pretest and finish it later.

Quizzes: Each section within a module starts with an optional quiz. There is only one attempt at each quiz. A score of at least 80% on a quiz will allow a student to move to the next section in the module. If an 80% is not achieved, the student will proceed to the section's interactive reading assignment.

THE NEBRASKA MATH READINESS PROJECT

PERSISTENCE, RETENTION, COMPLETION, SUCCESS

Syllabus: Assessment of Student Work

As stated earlier, a student can skip the quiz and start the interactive reading assignment if desired. Quizzes have a 45-minute time limit. A student cannot exit a quiz and finish it later.

Interactive Reading Assignments: Each section within a module has an interactive reading assignment. The reading assignment is required unless the module pretest or quiz had a score of at least 80%. Each reading assignment provides definitions and guided practice to help students learn the section material. As a student progresses through the reading assignment, practice problems will need to be completed. A score of at least 70% on the reading assignment is required to start the homework (unless the quiz was at least 80%). The reading assignments have no time limit. A student can exit a reading assignment and finish it later.

Homework: Each section within a module has a homework assignment. The homework in each section is required after the reading assignment is completed unless the module pretest or quiz had a score of at least 80%. Each question has a Question Help button giving different tutorials to help the student. When a question is completed (either correct or incorrect), the Similar Question button can be clicked to provide a new problem for practice.

Syllabus: Assessment of Student Work

A score of at least 80% on the homework is required to start the next section (unless the quiz was at least 80%). Homework does not have a time limit. A student can exit homework and finish it later. Click Save when you have completed the assignment or need to stop.

Exams: Each module has an individually administered exam. They are to be closed book exams given within the classroom. Prior to taking an exams, students may take a sample exam to review. A score of at least 80% on an exam is required to start the next module (unless the pretest was at least 80%). If an 80% is not achieved, the student will proceed to the exam's Review For 2nd Attempt homework assignment. The questions in the review assignment are based on the results of the exam. A score of at least 80% on the review assignment is required before getting a second attempt at the exam. If an 80% is not achieved on the second attempt of the exam, the student will have a conference with the instructor to discuss the errors made on the exam before receiving additional attempts. This process continues until the student scores at least 80% on the exam. All exams have a 90-minute time limit. A student can exit an exam and finish it later.

THE NEBRASKA MATH READINESS PROJECT

PERSISTENCE, RETENTION, COMPLETION, SUCCESS

Syllabus: Assessment of Student Work and Expectations of Students

Comprehensive Assessments: Each level has an individually administered comprehensive assessment. They are to be closed book assessments within the classroom. After the students complete all of modules in a level, they are able to take the assessment. All assessments have a 45-minute time limit. A student can exit an assessment and finish it later.

Attendance: Students are expected to attend class each day so they are able to make progress within the course.

Classroom Behavior: The student will

1. Take notes on the videos and read the eBook material.

2. Participate in class discussions and ask questions.

3. Keep up with the schedule in order to complete the course. This will require working outside of class where computers and internet access is available.

4. Be respectful of other students and the instructor.

Syllabus: Expectations of Students

When Help is Needed: The student will

1. Contact the instructor as soon as there is a problem.

2. Use the materials in the Multimedia Library in MyLab Math.

3. Work with classmates, friends, tutors, study groups, or instructors. Use all available resources.

Central Community College
MATH 1020 Technical Math Syllabus (Semester 2)
Course Description
This course provides the math skills required in career/technical fields. The course includes a review of arithmetic operations, exponents, algebraic operations, and right triangle trigonometry with emphasis placed applications.
Total Credits 3

Purpose/Goals
The purpose/goals of this course are to:
Apply arithmetic properties
Apply measurement concepts to real-world applications
Apply ratios and proportions to problem-solving for technical applications
Apply formula manipulation and evaluation for problem solving for unknown values Apply geometric formulas and concepts to problem solving of technical applications Apply right triangle relationships to problem solving of technical applications.

Course Competencies
    1. **Apply arithmetic properties.**
Learning Objectives
1.a. Complete basic operations with decimals, fractions and signed numbers.
1.b. Calculate a power or square root of a number.
1.c. Apply the order of operations.
Performance will meet expectations when the student:
1.1. performs calculations with numbers in various forms.
1.2. simplifies expressions involving signed numbers and multiple operations.
    2. **Apply ratios and proportions to problem-solving of technical applications.** Learning Objectives
2.a. Simplify ratios and rates.
2.b. Calculate unit rates.
2.c. Solve a proportion for the unknown value.
2.d. Identify application problems as involving direct or inverse variation.
2.e. Write the proportion or the product equation which correctly represents an application problem.
Performance will meet expectations when the student:
2.1. solves problems involving rates and ratios.
2.2. uses equations to solve problems involving direct and inverse variation.
    3. **Apply percent concepts to real world applications.**
Learning Objectives
3.a. Convert between percent, fraction, and decimal notation.
3.b. Identify the three parts of a percent problem.
3.c. Choose an appropriate formula or method and solve percent problems, including practical applications.
Performance will meet expectations when the student:
3.1. solves problems involving the application of percent.
3.2. solves problems involving percent increase and decrease.
    4. **Apply measurement concepts to real-world applications.**
Learning Objectives
4.a. Convert measurements within and between customary and metric units.
4.b. Read measurements on a ruler, Vernier caliper and micrometer.
4.c. Read meters and gauges with uniform and non-uniform scales.
4.d. Identify the accuracy and precision of a measurement.
4.e. Express calculated answers with the proper number of significant digits or decimal places.

Performance will meet expectations when the student:

4.1. reads measurements in both customary and metric units.

4.2. converts measurements from one unit to another.

4.3. reads measurements from various precision measuring instruments, gauges and analog meters.

4.4. rounds answers to measurement calculations in accordance with accepted rules.

5. Apply formula manipulation and evaluation for problem solving for unknown values.

Learning Objectives

5.a. Evaluate an algebraic expression.

5.b. Simplify an algebraic expression by combining like terms.

5.c. Use the addition and multiplication properties of equality to solve linear equations.

5.d. Solve formulas for a given variable.

5.e. Solve application problems involving linear equations.

Performance will meet expectations when the student:

5.1. employs the properties of equality to solve linear equations and formulas.

5.2. applies mathematical relationships and concepts to problem solving of technical applications.

6. Convert the expression of a linear relationship between equation and graphical forms.

Learning Objectives

6.a. Identify the slope of a linear graph or equation.

6.b. Graph the solution of a linear equation in two variables.

6.c. Use the properties of a linear graph to write its equation.

Performance will meet expectations when the student:

6.1. produces a linear graph from an equation or other given properties.

6.2. identifies properties of a linear graph and uses it to create the corresponding equation.

7. Apply geometric formulas and concepts to solving of technical applications. Learning
Objectives

7.a. Calculate the perimeter of polygons.

7.b. Calculate the circumference and area of a circle.

7.c. Calculate the area of rectangles and triangles.

7.d. Calculate volume as area times height.

7.e. Determine the unknown angle of a triangle.

7.f. Determine unknown angles formed by a transversal of parallel lines.

Performance will meet expectations when the student:

7.1. calculates various measures of different geometrical shapes.

7.2. determines the values of unknown angles in various geometrical structures.

8. Apply right triangle (trigonometric) relationships to problem solving of technical applications.

Learning Objectives

8.a. Apply the Pythagorean Theorem in finding an unknown side of a right triangle.

8.b. Calculate unknown values of a right triangle by use of sine, cosine and tangent ratios.

8.c. Solve oblique triangles by use of the law of sines and the law of cosines.

Performance will meet expectations when the student:

8.1. determines the unknown sides and angles in right and oblique triangles.

9. Analyze statistical data.

Learning Objectives

9.a. Read data from various types of graphs.

9.b. Display data in graphical form.

9.c. Calculate data relationships.

9.d. Calculate the mean, median and mode of a set of numbers

Performance will meet expectations when the student:

9.1. analyzes data from a graph.

9.2. describes data by measures of central tendency.

CCC-Americans with Disabilities Act
If you have a disability or want to know if you qualify for accommodations as defined by the Americans with Disabilities Act, you are invited to contact the campus Director of Disability Support Services. You are not required to disclose or reveal information about your disability to anyone at any time, however, in order to receive accommodations in college, you must make those needs known and request services from the Disability Support Services office on one of the three CCC campuses. Inquiries concerning the application of the laws and regulations cited above may be directed to the Human Resources Office, Central Community College, P.O. Box 4903, Grand Island, NE 68802-4903; (308) 398-7325, or to the Director, Office of Civil Rights, U.S. Department of Education, Washington, DC 20201.

CCC-Archiving of Student Work
To protect the original work of students from plagiarism and to uphold the high academic standards and integrity of CCC, any written assignment in this course may be submitted to an internet-based plagiarism detection service such as Turnitin.com by the student or the instructor. All submitted written assignments will be archived and may be referenced for the purpose of detecting plagiarism.

CCC-Course Meeting Time and Location
Course meeting time and location may be found in **WebCentral** through My Services, Services for Students,
Academic Planning, Student Planning, Go to Plan & Schedule, Timeline tab or use this quick link: Student Planning Timeline Tab > Sign In, if applicable > Navigate to Term > Click on Course Name

CCC-Equal Opportunity/Affirmative Action
Central Community College does not discriminate on the basis of race, religion, national origin, gender, age, disability, marital status, or military veteran status as is defined by law in employment, admission, scholarship and financial aid programs or operation of its educational programs and activities as prescribed by Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Executive Order 11246 as amended, sections 503 and 504 of the Rehabilitation Act of 1973, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, the Age Discrimination Acts of 1974 and 1975, and other federal and state laws and regulations.
Central Community College offers career and technical education programs for all students regardless of race, color, national origin, age, religion, marital status, including those with limited English proficiency, sex or disability. For a complete list of programs, go to www.cccneb.edu/programs. Educational programs are offered at but not limited to the following locations: Columbus Campus, Grand Island Campus, Hastings Campus, Holdrege Center, Kearney Center, Lexington Center and Ord Learning Center.

CCC-Expectations for Academic Integrity
Central Community College believes successful students are independent critical thinkers who possess the work ethic and skills necessary to make a positive difference in their professions and communities. In order to maximize student and community success, CCC is devoted to maintaining an honest academic environment and upholding integrity as a core value. All individuals across all course modalities are expected to practice academic integrity, which encompasses the fundamental values of honesty, trust, respect, fairness, and responsibility. In the case of alleged violations of academic integrity, Central Community College strives for fair resolution.

Instances of Academic Dishonesty:

Behaviors that violate the fundamental values of academic integrity at Central Community College may include but are not limited to the following:

· Plagiarism - direct copying or paraphrasing without citation someone else's work (i.e. writing, images, video or audio)

· Cheating - engaging in any behavior intended to achieve an unfair advantage for self or another in any academic exercise (i.e. unauthorized collaboration or unauthorized use of resources or data in a study)

· Fabricating Information - inventing or falsifying information (i.e. making up resources and/or citations, falsifying academic records)

· Facilitating Academic Dishonesty - soliciting, furnishing, or offering to furnish unauthorized exams, quizzes, or academic materials; participating in academic sabotage

Read the Expectations for Academic Integrity in its entirety.

CCC-General Information

All college policies and procedures identified in the student handbook will be adhered to for the course. College policies and procedures include, but are not limited to, conditions for dropping or withdrawing from a class, student academic honesty, etc. A copy of the student handbook is available upon request from the Student Services office on each campus or you may utilize this link to the Student Handbook.

CCC-Technology Usage Guidelines

In order to support the activities for this course, Central Community College provides access to computers for students. The College established Technology Use Policy and Procedure documentation. This document can be found on the College web site. You may click this link to download a PDF document outlining the College's Technology Use Guidelines.

CCC-Title IX Policy

Members of the Central Community College community, guests and visitors have the right to be free from all forms of gender and sex-based discrimination, examples of which can include acts of sexual violence, sexual harassment, domestic violence, dating violence, and stalking. All members of the campus community are expected to conduct themselves in a manner that does not infringe upon the rights of others. Any member of the community, guest or visitor who believes that the policy on Equal Opportunity, Harassment and Nondiscrimination has been violated should contact the Title IX/Equity/AA Coordinator, Dr. Marcie Kemnitz, 308-398-7400 or mkemnitz@cccneb.edu. Students should understand that in cases of gender and sex-based discrimination, no College employee, including members of the faculty, can guarantee confidentiality. For more information about CCC's policy please reference CCC's Title IX Handbook. For counseling services which may remain confidential, CCC has contracted with the Family Resource Center for counseling services for CCC students at no cost. To schedule an appointment, call 1- 888-381-7487, www.family-resources.net.