

OSC Introduction to Math

Syllabus

Course description:

Introduction to Mathematics: This course is intended for Occupational Course of Study students who will be working with both their face-to-face classroom teacher and an NCVPS online teacher. The Introduction to Mathematics Course teaches the Essential Standards for Introductory Math and prepares the students for Math I. This course is designed to be implemented in a blended learning environment with collaborative instruction delivered by an online highly-qualified high school math teacher as well as a face-to-face OCS teacher. Ideally, the delivery of instruction includes regular computer use as well as time to work on "hands-on" activities. COURSE NOTE: This course is designated for students in the Occupational Course of Study STRANDS: Number Order, Fractions, Variables, Data Analysis, and Probability

Course objectives:

This course blends the best of online and classroom activities. Students learn introductory algebra and other important life-skills in nine engaging units covering working with numbers, fractions and decimals, rates and ratios, time and measurement, working with algebraic expressions, solving equations and inequalities, working with points and lines, working with data sets, and working with basic geometric figures. Pre-Assessments and Check Your Knowledge quizzes will be used as diagnostic tools, lessons present the content, Completion Activities allow the students to practice a skill set, Mastery Assignments measure student understanding, and Remediation Assignments allow students to review

Course instructional methods: Technology skills will be honed throughout the course by working with a graphing calculator and using the computer in a variety of ways.

Grading policy: Effective with the 2015-2016 school year, high schools grades 9-12 use one grading scale. The conversion of grades to quality points is standardized.

Grading scale:

A= 90 – 100 D = 60 – 69

B = 80 – 89 F = 59 and below

C = 70 – 79 I = incomplete

Quizzes: 30%

Tests: 30%

Homework: 20%

Notebook checks & Class Participation: 20%

Materials

- Pens, pencils and highlighters
- Notebook with paper
- Chromebook

Classroom Rules and Procedures:

- Be in your seat and quiet when the bell rings.
- Participate actively in all learning activities.
- Respect school property. Do not bring food or drink into the classroom.
- Follow all school rules as noted in student handbook.

Policies regarding tardiness, absences, and makeup work are clearly stated in the Student Handbook and will be enforced according to school policy.

Final Exam Information

You WILL have a final exam for this class. Your final exam will count for 25% of your semester grade for this class. There will be no exam exemptions for any final exam. I will keep a portfolio of each student's work throughout the year. This portfolio (and its contents) will stay in the classroom unless the student is given permission to take it home temporarily.

COMPETENCY GOAL I: The learner will use graphs, tables, symbolic manipulation, and technology to communicate mathematically and solve problems.

Objectives

- 1.01 Use the language of mathematics to express mathematical ideas in content specific and applied settings
- 1.02 Use online (NCVPS) to engage in discussions and apply mathematical strategies to solve problems
- 1.03 Apply an appropriate strategy to solve problems both individually and in groups.
- 1.04 Use a variety of problem-solving tools such as math blocks, fraction cubes, etc. to formulate, approach, and solve problems.
- 1.05 Employ more complex problem-solving methods to develop a deeper understanding of mathematics, such as simulating a construction project (with materials and budget restraints).
- 1.06 Use estimation to determine the most reasonable answer to problems.

COMPETENCY GOAL 2; The learner will use graphs, tables, and charts to model relationships.

Objectives

2.01 Illustrate a mathematical concept, connection, or problem and its applicability to a real-world context.

2.02 Use physical and digital models to demonstrate mathematical concepts.

2.03 Demonstrate the development of a mathematical conjecture and create a convincing proof of its validity or disproof.

COMPETENCY GOAL 3: The learner will collect and analyze data and apply statistical concepts to solve problems.

Objectives

3.01 Construct and interpret displays of data to solve problems

3.02 Develop methods to collect univariate and bivariate data to describe trends within populations

3.03 Find and analyze data sets and collection processes with respect to the authenticity of the data.

3.04 Collect and analyze data sets

3.05 Identify a potential community issue that can be analyzed using a wide range of mathematical tools, and develop a report presenting the data used

3.06 Develop an appropriate-audience presentation that uses analysis, interpretation and display of data and related inferences to describe the situation and possible solutions.

3.07 Analyze statistical techniques, sampling bias, and population parameters in published scientific or economic reports and evaluate the validity of the reports' findings.

Classroom Agreement

I have read the above syllabus and I agree to all aspects of the above syllabus. I understand the expectations and that it is my responsibility to adhere to these classroom regulations.

Student Signature: _____ Date: _____

Parent/guardian Signature: _____ Date: _____

Email: _____ Phone: _____

Fill out the following contact information. Please include e-mail addresses so that we can update you any time concerning your child.

Please include any additional information about your child you deem necessary, such as medical conditions, learning styles, weaknesses and/or strengths, personality traits, home conditions, etc.

Teacher contact Information: *Please record my contact information for you and your child's use.*

Dr. Zakiyyah Marcell

Email: zakiyyahmarcell@ccs.k12.nc.us

OCS Instructor

Terry Sanford High School

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OCS OCCUPATIONAL PREPARATION I

SYLLABUS

COURSE DESCRIPTION:

This course gives the students the opportunity to synthesize job seeking skills. This course allows students to solve work-related problems experienced in competitive employment, practice self-advocacy skills and master the theoretical and practical aspects of their career choice. Students finish completing the 150 hours of school based training required for successful transition to 225 required hours of community based training within the Occupational Course of Study. Students also will begin to develop a job placement portfolio that provides an educational and vocational record of his or her school experience.

INSTRUCTOR PHILOSOPHY:

I believe in you. I will do all I can to help you. I will help you do your best at everything we attempt in this class. I **EXPECT YOU** to do your best and follow all school rules. Have pride in yourself and in everything you do

COURSE GOALS:

- 1) The learner will exhibit the self-determination skills needed to participate in transition planning and successful adjustment to adult life.
- 2) The learner will actively participate in career development activities (e.g. awareness, exploration, and planning) to determine a career goal.
- 3) The learner will exhibit job-seeking skill necessary to secure employment in chosen career pathway.
- 4) The learner will exhibit the work behaviors, habits, and skills in the area of personal management needed to obtain, maintain, and advance in chosen career pathway.
- 5) The learner will exhibit the work behaviors, habits, and skills in the area of job performance needed to obtain, maintain, and advance in career pathway.
- 6) The learner will exhibit the interpersonal relationship skills needed for success in the workplace.
- 7) The learner will complete 150 hours of successful school based training by the second semester of his or her sophomore year.

EXPECTATIONS:

- 1) Be prepared
- 2) Be in class daily **ON TIME**
- 3) No Cell Phones
- 4) Stay on task
- 5) Respect yourself and others

NINE-WEEKS GRADING CRITERIA:

GRADING STANDARDS:

Starter	5%	A (90-100)	
Classwork/Homework	25%	B (80-89)	
Tests/Notebook	30%	C (79-70)	
Portfolio	40%	D (69-60)	F (0-59) (Unacceptable)

****Students will be allowed to make up any missed assignments**

NOTEBOOK GUIDELINES NAME: _____

All students are required to keep a notebook. This notebook needs to be a 3-RING BINDER.

The notebook will be housed in the classroom and checked at least every 4 ½ weeks (2 times each 9-weeks). Each notebook check will count as 2 quiz grades.

1) SYLLABUS (5 points)

Should be the first sheet seen when the notebook is opened.

2) NOTEBOOK GUIDELINES (5 points)

Should be behind the syllabus

3) FIVE SECTIONS (50 POINTS)

Divide notebook into the following 5 sections:

- A. Tab 1 Starters
- B. Tab 2 Class work
- C. Tab 3 Homework
- D. Tab 4 Tests
- E. Tab 5 Notes

1 st Progress Report Check	1 st Report Card Check	Items	2 nd Progress Report Card	2 nd Report Card Check
		Syllabus (5)		
		NB Guidelines (5)		

		5 Sections (50)		
		Organization (20)		
		Spot Check (20)		
		Total (100)		

OCS Applied Science SYLLABUS

OCS Applied Science

Course Code: 9231BX0

Course Level: Academic Co-Taught

Course Offering: Yearlong for 1 credit

TEACHER INFORMATION

<NCVPS teacher should update this section once course is assigned. Please delete this note before uploading the syllabus to your course.>

NCVPS Teacher Name:

Classroom Teacher Name:

NCVPS TEACHER AND STUDENT EXPECTATIONS

A Note from Your NCVPS Teacher

Welcome to class! I am looking forward to working with you! As your biggest fan and supporter in learning, I will ...

- grade assignments with meaningful feedback that is very specific and directive within 24 hours of submission. Assignments, such as essays, discussion forums, honors assignments, and research papers, will require longer than 24 hours for grading.
- respond to all Canvas messages within 24 hours. Responses are typically sent in less than 24 hours unless it's late at night or on a weekend. I want to work to get to know you better.
- post announcements to introduce and/or review the learning for the day and celebrate you and your classmates! I will do this daily, so it is very important that you review the announcements.
- provide individualized learning resources to help you learn the course material.

To learn more about what you can expect from me as your teacher, please read the NCVPS Accommodations and Accessibility Statements below.

NCVPS Accommodations Statement

Our goal at NCVPS is to make sure that we work with students in the ways that they learn best! For students with an IEP or 504, we have developed a process for ensuring that all learning needs are met. I will work with the student's school to devise a plan that provides all modifications and meets the IEP/504 goals as detailed in each student's IEP/504 document. To review our process for supporting students with an IEP, read our [IEP/504 Guidelines](#).

NCVPS Accessibility Statement

The North Carolina Virtual Public School is continually striving to improve our courses for all students, ensuring the courses are accessible to everyone. If you have any questions, suggestions, or concerns regarding the accessibility of the course, please contact your teacher and we will work to resolve the issue.

If you have any questions about accommodations or accessibility, please contact me, your online teacher, first. We will work together, with your school, to best meet your learning path.

The Role and Responsibilities of an Online Student

Online learning is engaging, fun, and provides opportunities for creativity and collaboration. Just like students taking a class face to face, online learners must take responsibility of their learning. As an online student, you will ...

- actively participate in the online course every day, Monday - Friday. Daily participation in the online course will ensure that you stay on pace. Students are welcome to work on the weekends, but it is not required.
- check course announcements daily.
- check messages in Canvas daily.
- complete assignments as directed by your classroom teacher.
- seek help from your online teacher when needed. Your teacher is here to help! Do not hesitate to reach out with questions. Communication is key to your success.

NCVPS Academic Integrity

The North Carolina Virtual Public School has an expectation that all work submitted by a NCVPS student is his/her own. Academic integrity of all students must be maintained, and NCVPS considers it to have a high degree of importance.

Academic Integrity determines that all assignments and exams submitted by a NCVPS student is his/her own and the student:

- Will not **plagiarize*** any material in written or verbal forms
- Will not share work with others, unless directed by your instructor, or copy the work of others and represent it as their own
- Will apply appropriate use of information literacy

*** To plagiarize is to copy or use the ideas and/or words of another and represent them as your own.**

The accuracy in which student work is submitted to NCVPS is of great importance and NCVPS reserves the right to use technology, such as SafeAssign to investigate plagiarism. The academic integrity for all students must be maintained. To learn more about our student conduct and academic integrity policies, read the Academic Integrity portion of the NCVPS Student Code of Conduct document.

NOTE: Any student, who has plagiarized a work in any manner, will receive disciplinary action up to and including removal from the NCVPS course with a failing grade.

Acceptable Communication (Netiquette)

The term netiquette is used to describe and define a set of guidelines for acceptable online interaction and communication. To learn more about our netiquette guidelines, read the Acceptable Communication (Netiquette) portion of the NCVPS Student Code of Conduct document.

NCVPS Privacy Policy

The North Carolina Virtual Public School will abide by the student privacy guidelines set forth by the Family Educational Rights and Privacy Act (FERPA). The following persons have access to student records:

- NC State Board of Education (SBE) members
- NCVPS Executive Director, administrative team, and professional staff of NCVPS (teachers, guidance counselor, and student support services staff)
- Appropriate administrative support staff members and other professionals who have a legitimate educational or legal interest in student records as designated by the NCVPS Executive Director.
- Lab facilitators assigned by LEA who use school labs to access NCVPS courses

North Carolina Virtual Public School provides an academic transcript to the student's primary school of record upon completion of the online course(s), or upon any request of the primary school and/or student's legal guardian.

In accordance with state and federal privacy laws, students who attain the age of 18 may transfer certain rights related to their academic records. Some LEA schools may assign a lab facilitator to help students who use school labs to access NCVPS courses. Facilitators will have access to students' online work from their school.

No member of the NCVPS staff is authorized to release student information without the written permission of the student's legal guardian or without approval of the NCVPS Executive Director. Names, images, and/or course work of NCVPS students will not be published in print, video/film, or via the Web without written student and guardian consent. The privacy of all NCVPS students is protected through a unique password to access online courses. It is the student's responsibility to keep his/her password in confidence.

All the data provided to us is protected to ensure both the privacy and security of the data. We use state-of-the art technology to keep personal information as secure as possible to ensure that no one will be able to tamper with, intercept or access data. Remember to keep account information and password private and secure.

NCVPS Content Rights

NORTH CAROLINA ESSENTIAL STANDARDS

Occupational Course of Study Applied Science

Note: All students following the Occupational Course of Study are also required to take English I, II, III, and IV, Math I, American History I and American History II, and Health and Physical Education.

Grade: High School

Course: Forces and Motion

- **OA1.1** - Understand force and motion.
 - › **OA1.1.1** - Compare weight and mass.
 - › **OA1.1.2** - Classify types of force (gravity, friction, magnetism).
 - › **OA1.1.3** - Describe the effects of force (gravity, friction, magnetism) on an object's weight and motion.

Course: Energy

- **OA2.1** - Understand energy and its conservation.
 - › **OA2.1.1** - Identify forms of energy (solar, nuclear, wind, chemical).
 - › **OA2.1.2** - Explain the effects of various forms of energy on the environment.
 - › **OA2.1.3** - Identify ways that consumers can conserve energy.

Course: Electricity and Magnetism

- **OA3.1** - Understand electricity and magnetism.
 - › **OA3.1.1** - Interpret a compass.
 - › **OA3.1.2** - Explain how magnetic poles behave.
 - › **OA3.1.3** - Understand safety procedures related to static electricity.
 - › **OA3.1.4** - Understand safety procedures related to household electricity.

Course: Matter

- **OA4.1** - Understand properties of matter (color, shape, volume, density, texture).
 - › **OA4.1.1** - Distinguish between the three states of matter (solid, liquid, gas).
 - › **OA4.1.2** - Classify common materials according to their properties (color, shape, volume, density, texture).

Course: Chemicals

- **OA5.1** - Identify the uses and dangers of common chemicals.
 - › **OA5.1.1** - Identify uses of common chemicals.
 - › **OA5.1.2** - Identify dangers related to common household chemicals (chlorine bleach, antifreeze, chemicals for lawn and garden, insecticides, rodent poison, de-icing salt).

Course: The Environment



NCVPS policy it that all courses are compliant with applicable NCVPS policies and/or guidelines, including, ADA/Section 504/IEP Compliance, intellectual property, and provisions of US Copyright Law and the Technology, Education, and Copyright Harmonization Act (TEACH Act.)

Acceptable Use Policy

An Acceptable Use Policy (AUP) is an agreement between students and their schools that outlines the rules governing the use of technology and Internet resources. To learn more about our acceptable use policy, read the Acceptable Use Policy portion of the NCVPS Student Code of Conduct document.

COURSE STANDARDS AND OVERVIEW

Course Standards

NCVPS courses follow the standards set by the state of North Carolina. To view the standards for OCS Applied Science read <https://ec.ncpublicschools.gov/disability-resources/intellectual-disabilities/ocs/new-standards/ocs-applied-science.pdf> . These standards were created by the North Carolina Department of Instruction.

Course Overview

This course is intended for Occupational Course of Study (OCS) students who will be working with both their face-to-face classroom teacher and an NCVPS online teacher. The Applied Science Course blends the best of online and classroom activities as students learn environmental, physical, and life science concepts in nine engaging units covering human impacts on the environment, energy and its conservation, properties of matter, dangers and uses of common chemicals, force and motion, electricity and magnetism, and the human body systems. Technology skills will be honed through the course. Pre-Assessments will be used as diagnostic tools, while lessons present the content, and Post-Assessments measure mastery. This course is designed to be implemented in a blended learning environment with collaborative instruction delivered by an online highly-qualified Science teacher as well as a face-to-face OCS teacher.

Final Exam

The OCS Applied Science final exam is a teacher made exam. A final exam and answer key can be found in the Teacher Resources. Co-teachers will work with face-to-face teachers to modify or create an exam best suited for each section.

Course Prerequisite

There are no course prerequisites for OCS Applied Science.

Course Outline

Module 1: You and the Environment

Lesson 1: You and the Land

Lesson 2: Air Pollution

Lesson 3: Water Pollution

Module 2: Energy and its Conservation

Lesson 1: What is Energy?

Lesson 2: Renewable Energy Resources

Lesson 3: Non-Renewable Energy Resources

Lesson 4: Conservation of Energy

Module 3: Properties of Matter

Lesson 1: What is Matter?

Lesson 2: Properties of Matter

Lesson 3: Density

Module 4: Chemicals

Lesson 1: Chemicals and Safety

Module 5: Forces and Motion

Lesson 1: Weight, Mass and Gravity

Lesson 2: Friction

Lesson 3: Magnets

Module 6: Electricity and Magnetism

Lesson 1: The World of Magnetism

Lesson 2: Static Electricity

Lesson 3: Electrical Safety

Module 7: The Human Body Part One

Lesson 1: The Skeletal System

Lesson 2: The Muscular System

Lesson 3: The Integumentary System

Lesson 4: The Digestive System

Module 8: The Human Body Part Two

Lesson 1: The Circulatory System

Lesson 2: The Respiratory System

Lesson 3: The Urinary System

Lesson 4: The Immune System

Module 9: The Human Body Part Three

Lesson 1: The Endocrine System

Lesson 2: The Nervous System

Lesson 3: The Reproductive System

Grading Information

Students will complete activities online and in the classroom. Grades will be based on the face-to-face school's grading scale and the classroom teacher's gradebook.

Communication Policy

All communication should occur in the *Messages* system in Canvas. This function works just like e-mail. Messages received from students on Monday through Thursday will be answered within 24 hours. Messages sent on Friday through the weekend will be answered by Monday.

Course Specific Information

Throughout this course, you will be asked to complete Gizmo activities. These are wonderful, interactive learning tools that will allow you to practice the concepts you are learning and get real time feedback. When you click the link for your Gizmo, you will be taken to the main site for the Gizmo company: www.explorelearning.com (Links to an external site.)Links to an external site. Each Gizmo activity found in your units will give the directions you need to find the correct Gizmo, but you will need to log in first. You will find the login at the top left of the main Gizmo screen. Click on the login button, and then enter the id and password below. Then you will follow the directions on each assignment for finding the correct Gizmo to complete.

Always ask your teacher if you have questions!

Gizmo id: FirstnameLastname (ex: JohnDoe)

Gizmo password: FirstnameLastname (ex: JohnDoe)

NCVPS AND COURSE REQUIREMENTS

Technology Requirements and Expectations

To review our technology requirements and expectations, read the [NCVPS Technical Requirements](#).