

SPRING 2007
NORFOLK STATE UNIVERSITY
**EED 465 Methods of Teaching Mathematics, Science, and Technology in the Elementary/
Middle School**
Three credit hours

INSTRUCTOR: Ms. Carrol Rhodes Nelson, Assistant Professor
Early Childhood/Elementary Education
Room 142 Bozeman Building
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OFFICE HOURS: M 4-5; T 12-3:00; W 2-4; TH 4-5; F 9-10.

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MEETING TIME: WEDNESDAY 4:00 – 7:00
Room 230 Bozeman Building

COURSE DESCRIPTION:

This course will enable the pre-service teacher to integrate mathematics and science in the K-6 classroom through interdisciplinary thematic units. Higher order thinking skills, cooperative learning, and technology will be explored throughout the course. Hands-on activities and experiments will be employed to help the pre-service teacher feel confident about integrating mathematics, science, and technology.

The course is a collection of investigation modules in which students will be presented real world problems and will be assisted in developing model solutions to the problems using state of the art technological means. The primary vehicles for the methods portion of the course are the textbooks. Content is delivered through classroom laboratory activities, reference materials, and technology.

Course Rationale

Pre-service teachers will be able to

1. identify and articulate concepts of mathematics, science, and technology.
2. construct models and test ideas in order to understand mathematics and science in the world around us.
3. use higher order thinking skills, cooperative learning and technology in mathematics and science instruction.
4. cite and participate in examples of real world application

Course goals and measurable objectives

1. Analyze given data to make ecological conclusions on man's affect on the environment.
2. Define ecosystem where you live and the immediate surroundings.
Students will define ecosystem in relation to their immediate surroundings and global implications.
3. Students will categorize items into living and non-living. Examples: (fish, plants, animals) (non-living all others).
4. Students will define the rainforest, give examples of rainforest and discuss the impact of diminishing rainforest on the environment.
 - Change in temperature
 - Depletion of resources
 - Imbalance of animals
 - Extinction
 - Medical impact and employment
5. Students will study sampling techniques and basic statistical concepts.
6. Students will use the internet to research the natural decomposition of materials, and history of science.
7. Students will collect data, find an average, and use an average to do other calculations that yield an approximation.
8. Students will study weather charts, record and compare temperature data and make predictions based on calculations.

9. Students will use an average set of number and logic grids to solve a scientific problem/problems.
10. Students will define greenhouse effect and acid rain in quantitative terms.

TEXT REQUIREMENTS:

1. Textbooks: Carin, Arthur A. *Teaching Science through Inquiry* (10th edition) Upper Saddle River, NJ: Pearson Prentice Hall, 2005.
2. Reys, Robert E. et al. *Helping Children Learn Mathematics* (7th edition) Hoboken, NJ: Wiley/Jossey-Bass Education, 2004.

PRIMARY METHODS OF INSTRUCTION: Lecture, demonstrations, field experiences, simulations, technology, and class participation.

Teacher's Box: Stapler, scissors, 12 inch ruler, construction paper, glue, hole puncher, #2 pencils, wide rule paper, colored pencils, magic markers, paperclips, thumbtacks, chalk, white board supplies, disposable gloves, hand sanitizer, rubber bands, and note cards.

Assignments:

EED 465 Mathematics Activities Spring 2007

1. Explain in your own words the six principles that underpin *Principles and Standards for School Mathematics*. Chapter 1, Helping Children Learn Mathematics. Due:
 - 1a. Check the information for Virginia at the "Link to State Mathematics Content Standards" at the center for the Study of Mathematics Curriculum: <http://www.mathcurriculumcenter.org>. Identify the content areas for Virginia. How do these areas compare to the five content standards of the NCTM? Due:
2. Provide some mathematical examples to help distinguish between procedural and conceptual knowledge. Chapter 2, due
 - 2a. Identify the three tenets on which constructivism is based. From the Snapshot of a Lesson, identify evidence of these tenets. Chapter 2,
 - 2b. Check the Women's Educational Equity Act (WEEA) at the Equity resource center Web site, www.edu.org/womensequity/ for a history of Title IX, a list of publications, current articles and other web links. Report on something related to equity and mathematics found at that site. (Group activity) due:
3. Briefly describe the most important differences among the three different types of lessons described in chapter 3. When and why would you choose to use each type?
 - 3a. Collect five resources with ideas for incorporating different technologies in teaching mathematics in the elementary grades. For each, describe the technology. Write a lesson plan that describes how you would incorporate one of the ideas in a particular class. Chapter 3
 - 3b. Read the following article: De La Cruz, Y. "Reversing the trend: Latino families in real partnerships with schools." *Teaching Children Mathematics*, 5(5) (January 1999), pp. 296-300. Describe what you learned about specific classroom-tested ways of addressing issues of diversity in the classroom. Due
4. Analyze a test in an elementary mathematics textbook. Would it make a difference if the students used calculators? What items would you need to change?
 - 4a. Examine a standardized test. Does it allow use of calculators? Identify examples of good and poor questions, and explain your opinions.
 - 4b. Visit the Web site of the Nation's Reportcard (nces.ed.gov/nationsreportcard/), which offers public access to test items from the National Assessment for Educational Progress (NAEP), as well as state and national performance data from years of administration of this test. Search for fourth-grade mathematics test items in a content area of your choice (e.g., number or algebra or geometry). Identify an item that was easy for most students, and another item that was difficult for many students. Write a paragraph about each item, offering your reasoning about why the difficulty level of these items was different.
5. Plan a bulletin board focused on describing the five mathematical processes. Chapter 5.
 - 5a. Collect some numerical data about children (e.g., height, arm span, hand span). Record the data in a spreadsheet and create at least three different charts. Describe which chart best represents the data.
6. From your observations and field work related to this teacher preparation program, identify one specific example of educational practice that seems contradictory to exemplary practice or theory as presented in this class. This paper should be about 600 words.
7. Explore five mathematics websites for a specific grade level. Relate how these sites integrate the SOL's into the mastery of a particular area of mathematics. Do the sites support the NCTM standards? Design a table to support your findings.

IMPORTANT INFORMATION:

1. Please refer to Norfolk State University Fall Semester 2005 Registration Day and Evening for all information in reference to Norfolk State University policies and procedures.
2. NO MAKE-UP EXAMS ARE GIVEN.
3. Last day of class:
4. Final Exam:

EED 601: Course Units

Matter
Ecological/Rainforest
Solar System
Weather

Matter Unit: Outline

Week 1

- I. Units of Measurements
 - A. SI Units
 - B. Units and NUMERICAL Problem Solving
 - C. Concepts of Percent

- II. The Nature of Matter
 - A. States of Matter
 - B. Physical and Chemical Properties/Changes
 - C. Kinetic Molecular Theory (Scientific Models)
 - D. Density
 - E. Melting Point, Boiling Point, and Temperature

- III. Mixtures and Pure Substances
 - A. Heterogeneous Mixtures
Separation of Mixtures into Pure Substances
 - B. Homogeneous Mixtures
 1. Solution Concentration: Percentage
 2. Solution Concentration: Mole Fraction
 3. Solution Concentration: Molarity
 4. Dilution Problems
 - C. Pure Substances

Week 2

- IV. Atoms, Elements, and the Periodic Table
 - A. The nuclear atom: electron, proton, and neutron
 - B. Elements and the Periodic Table
 - C. Isotopes and Elemental Symbols
 - D. Atomic Mass

- V. Chemical Formula Problems
 - A. Compounds and Molecules
 - B. Chemical Formula
 - C. Molar Mass of Atoms
 - D. Molar Mass of Molecular and Ionic Substances
 - E. Conversion among Grams, Moles, Number of Atoms and Molecules
 - F. Percentage Composition
 - G. Empirical (Simplest) formula of a Compound

- VI. Stoichiometry
- A. The Quantitative Meaning of a Chemical Equation
 - B. Percentage Yield
 - C. Limiting Reactant Problems

Week 3

Matter: Virginia Standards of Learning

- K.1 The student will conduct investigations in which
- Basic properties of objects are identified by direct observation;
 - Observations are made from multiple positions to achieve different perspectives;
 - A set of objects is sequenced according to size;
 - A set of objects is separated into two groups based on a single physical attribute;
 - Picture graphs are constructed using to or fewer units;
 - Nonstandard units are used to measure common objects;
 - An unseen member in a sequence of objects is predicted;
 - A question is developed from one or more observations;
 - Objects are described both pictorially and verbally; and
 - Unusual or unexpected results in an activity are recognized.
- K.3 The student will investigate and understand that magnets have an effect on some materials, make some things move without touching them, and have useful applications.
Key concepts include
- Attraction/nonattraction, push/pull, attract/repel, and metal/nonmetal; and
 - Useful applications (refrigerator magnet, can opener, magnetized screwdriver)
- K.4 The student will investigate and understand that objects can be described in terms of their physical properties.
Key concepts include
- The eight basic colors;
 - Shapes (circle, triangle, square) and forms (flexible, stiff, straight, curved);
 - Textures and feel (rough, hard, soft)
 - Relative size and weight (big, little, large, small, heavy, light, wide, thin, long, short); and
 - Position and speed (over, under, in out, above, below, left, right, fast, slow).

Week 4

- K.5 The student will investigate and understand that water has properties that can be observed and tested.
Key concepts include
- Water occurs in different forms (solid, liquid, gas);
 - The natural flow if water is downhill; and
 - Some materials float in water while others
- 1.1 The student will plan and conduct investigations in which
- Differences in physical properties are observed using the senses and simple instruments to enhance observations (magnifying glass)

- Objects or events are classified and arranged according to attributes and properties;
- Observations and data are communicated orally and with simple graphs, pictures, written statements, and numbers;
- Lengths, mass, and volume are measured using standard and nonstandard units;
- Inferences are made and conclusions are drawn about familiar objects and events;
- Predictions are based on patterns of observation rather than random guesses; and
- Simple experiments are conducted to answer questions.

1.2 The student will investigate and understand that moving objects exhibit different kinds of motion.

Key concepts include

- Objects may have straight, circular, and back and forth motions;
- Objects vibrate;
- Pushes or pulls can change the movement of an object; and
- The motion of objects may be observed in toys and in playground activities.

1.3 The student will investigate and understand how different common materials interact with water.

Key concepts include

- Some liquids (vinegar) mix with water, other(oil) will not;
- Some everyday solids (baking soda, powdered drink mix, sugar, salt) will dissolve, others(sand, soil, rocks) will not; and
- Some substances will dissolve easily in hot water rather than cold water.

Week 5

2.1 The student will plan and conduct investigations in which

- Observations are repeated to improve accuracy;
- Two or more attributes are used to classify items;
- Pictures and bar graphs are constructed using number axes;
- Linear, volume, mass, temperature measurements are made in metric (centimeters, meters, liter, degrees, Celsius, grams, kilograms) and standard English units (inches, feet, yards, pints, quarts, gallons, degrees, Fahrenheit, ounces, pounds);
- Observation is differentiated from personal interpretation, and conclusions are drawn based on observations;
- Simple physical models are constructed;
- Conditions that influence a change are defined; and
- Unexpected or unusual quantitative data are recognized.

Week 6

2.2 The student will investigate and understand that natural and artificial magnets have certain characteristics and attract specific types of metals.

- Magnetism, iron, magnetic/nonmagnetic, opposites, poles, attract/repel; and
- Important applications including the magnetic compass.

2.3. The student will investigate and understand basic properties of solids, liquids, and gases.

Key concepts include

- Mass and volume; and
- Processes involved with changes in matter from one state to another (condensation, evaporation, melting, freezing, and contracting).

3.2 The student will investigate and understand simple machines and their uses.

Key concepts include

- Types of simple machines (lever, screw, pulley, wheel, and axle, incline plane, and wedge);
- How simple machines function; and
- Examples of simple machines found in the school, home, and work environment.

3.3 The student will investigate and understand that objects can be described in terms of the materials they are made of and their physical properties.

Key concepts include

- Objects are made of smaller parts;
- Materials are composed of parts that are too small to be seen without magnification; and
- Physical properties remain the same as the material is reduced in size.

Week 7

3.11 The student will investigate and understand different sources of energy.

Key concepts include

- the sun's ability to produce light and heat energy;
- Natural forms of energy (sunlight, water, wind);
- Fossil fuels (coal, oil, natural gas) and wood;
- Electricity, nuclear power; and renewable and nonrenewable resources.

4.2 The student will investigate and understand that energy is needed to do work and that machines make work easier.

Key concepts include

- Energy forms (electrical, mechanical, and chemical energy);
- Potential and kinetic energy;
- Simple and complex machines; and
- Efficiency, friction, and inertia.

4.3 The student will investigate and understand the characteristics of electricity.

Key concepts include

- The nature of electricity (voltage, ampere, resistance, conductors, and insulators);
- Circuits (open/closed. Parallel/series);
- Static electricity; and
- Historical contributions in understanding electricity.

5.2 The student will investigate and understand how sound is transmitted and is used as a means of communication.

Key concepts include

- Frequency, waves, wavelength, resonance, vibration, transmit, sound; and
- Communication tools (voice, Morse code, sonar, animal sounds, and musical instruments).

- 5.3 The student will investigate and understand basic characteristics of white light. Key concepts include
- The visible spectrum, light waves, reflection, refraction, diffraction, opaque, transparent, translucent;
 - Optical tools (eyeglasses lenses, flashlight, camera, kaleidoscope, binoculars, microscope, laser pointers, light boxes, telescope, prism, spectroscope, mirrors); and
 - Historical contributions in understanding light.

Week 8

Ecological/Rainforest

Outline

- I. Foundations of Ecology
 - A. The Scientific Methods
 - B. The Scientific Processes
- II. Water Ecology
 - A. The Water Cycle
 - B. Water Pollution
 - C. Water Conservation
- III. Air Ecology
 - A. The Oxygen/Carbon Cycle
 - B. Air Pollution and Depletion
 - C. Air Quality Control
- IV. Soil and Land Ecology
 - A. The Nitrogen Cycle
 - B. Soil and Land Exploitation
 - C. Soil and Land Conservation
- V. Recycling
- VI. Rainforest

Week 9

Ecological/Rainforest/ living Systems: Virginia Standards of Learning

<http://www.bsrsi.msu.edu/rfrc/tour/active.html>

- K.10 The student will investigate and understand that materials can be reused, recycled, and conserved. Key concepts include:
- Identifying materials and objects that can be used over and over again;
 - Describing everyday materials that can be recycled; and
 - Explaining how to conserve water and energy at home and in school.
- 1.8 The student will investigate and understand that natural resources are limited. Key concepts include:
- Identification of natural resources (plants and animals, water, air, land, minerals, forests, and soil);
 - Factors that affect air and water quality;

- Recycle, reuse, and reduce consumption of natural resources; and
- Use of land as parks and recreational facilities.

2.1 The student will plan and conduct investigations in which:

- Observations are repeated to improve accuracy;
- Two or more attributes are used to classify items;
- Pictures and bar graphs are constructed using numbered axis;
- Linear, volume, mass and temperature measurements are made in metric (centimeters, meters, liters, degrees, Celsius, grams, kilograms) and standard English units (inches, feet, yards, pints, quarts, gallons, degrees, Fahrenheit, ounces, and pounds).
- Observation is differentiated from personal interpretations, and conclusions are drawn based on observations;
- Simple physical models are constructed;
- Conditions that influence a change are defined; and
- Unexpected or unusual quantitative data are recognized.

2.5 The student will investigate and understand that living things are part of a system.

Key concepts include:

- Living organisms are interdependent with their living and nonliving surroundings; and
- Habitats change over time due to many influences

2.8 The student will investigate and understand that plants produce oxygen and food, are a source of useful products, and provide benefits in nature.

Key concepts include:

- Important plant products (fiber, cotton, oil, spice, lumber, rubber, medicine, and paper);
- The availability of plant products affect the development of a geographic area; and
- Plants provide homes and food for many animals and prevent soil from washing away.

Week 10

Solar System

Objectives

1. The students will use technological resources to investigate the various sources of natural energy. (sunlight, wind, water)
 - Using technological resources, (electronic information such as internet, and interlibrary indexes, students will research information about present, past and future careers in science as they relate to various sources of natural energy. (sunlight, water, wind) Students will create a four page document using word processing skills, using writing process steps, publishing programs and spread sheets.
2. The students will compare and contrast the relationships among planets, moon, sun and stars.
 - Identify the properties of the planets, moon, and sun;
 - Compare and contrast the inner and outer planets;
 - Describe how the sun affects each planet; and
 - Describe the basic movements of the Earth as it rotates on its axis and revolves around the sun.

3. the students will investigate and describe the basic cycles and sequences in nature
- Explore the phases of the moon;
 - Explain and diagram how a solar eclipse occurs; and
 - Explain how the attraction between Earth and the moon affects how the Earth's rotation causes day and night on Earth

Week 11

Solar System: Virginia Standards of Learning

- 1.6 the students will investigate and understand the basic relationships between the sun and the Earth,

Key concepts include:

- The sun is the source of heat and light that warms the land, air, and water;
 - The sun is low in the sky in winter, and high overhead in summer; and
 - Night and day are caused by the rotation of the Earth.
-
- The students will investigate and understand basic sequences and cycles occurring in nature.
Key concept includes:
 - Sequences of natural events (day and night, seasonal changes, phases of the moon, and tides).

- 4.4 The students will investigate and understand the basic components of the Solar System and the Earth's place in it.

Key concepts include:

- The relative size, position, and composition of the sun; the Earth's moon, planets, comets, asteroids, and meteors;
- Revolution, tilt, planetary orbits, and the role of gravity; and
- The impact of space exploration.

- 6.11 The students will investigate and understand the organization of the solar system and the relationship among the various bodies that comprise it.

Key concepts include:

- The sun, moon, Earth, other planets and their moons, meteors, asteroids, and comets,
- Relative size of and distance between planets;
- Revolution and rotation;
- The mechanics of day and night and phases of the moon;
- The relationship of the Earth's tilt and seasons;
- The cause of tides; and
- The history and technology of space exploration.

Week 12

Weather Unit

Outline 1

- I. Prerequisite Measurement Skills and Concepts
- A. Difference between Accuracy and Precision
 - B. Standard and Nonstandard Units of Measurement
 - C. Error of Measurement
-
- II. Types of Weather Measurements
- A. Temperature
 - B. Wind Speed

- C. Barometric Pressure
- D. Wind Direction
- E. Amount of Precipitation
- F. Humidity
- G. Cloud Direction

III. Constructing Weather Instruments

- A. Anemometer
- B. Wind Vane
- C. Barometer
- D. Rain Gauge
- E. Wet and Dry Bulb Thermometer
- F. Nephoscope

IV. Collecting Data from Weather Instruments

V. Using Graphs, Charts, and Tables

- A. Graphing and Interpreting Data from Weather Instruments
- B. Reading Graphs and Charts
 - 1. Finding the Relative Humidity
 - 2. Finding the Wind Chill Factor
 - 3. Computing Weighted Averages

VI. Making Inferences and Predictions from Data

Week 13

VII. Constructing and Using Models of Weather Conditions

- A. Models
 - 1. Cloud Formation
 - 2. Precipitation
 - 3. Lightning

- 4. Geographical effects
 - a. Ocean Currents
 - b. Cooling and Warming Rates of Continents and Oceans
 - c. Mountains
- 5. Weather Fronts/Highs and Lows
- 6. Tornadoes
- 7. Hurricanes
- 8. Monsoons
- B. Causes and Effects of Weather Conditions

VIII. Reading Weather Maps and Making Predictions

Week 14

Weather Outline 2

- I. The students will observe weather conditions and construct graphs and tables to describe the observations.
 - A. The candidate will identify appropriate picture graphs for students to construct to describe weather conditions.
 - B. The candidate will identify appropriate uses for line graphs of weather data.
 - C. The candidate will construct a pie/circle graph to describe weather conditions over a period of time.
 - D. The candidate will construct a table to describe a given weather condition in different locations over a period of time and convert the information to graph form.
 - E. The candidate will formulate generalizations from weather information in a graph or table.
 - F. The candidate will compute the weighted average of the daily temperature.

- II. The student will interpret the weather data from graphs, tables, and weather maps, describing trends and making predictions.
 - A. the candidate will read and interpret weather maps, graphs, and tables over a period of days to describe trends and make predictions.
 - B. The candidate will construct a list of activities for students to perform to interpret weather maps, graphs, and tables and describe the trends and make predictions from the information.

Week 15

- III. The student will collect data using student made and commercially made weather instruments.
 - A. the candidates will construct a display thermometer to aid in teaching students to learn how to read a thermometer.
 - B. the candidate will construct a list of temperature reading activities for students to perform to collect data over a period of time.

 - C. The candidate will use a computer based laboratory to collect temperature data.
 - D. The candidate will construct weather instruments students would use to complete a weather station (anemometer, wind vane, etc) and identify measurement objectives which can be taught through these construction activities.
 - E. the candidate will explain the difference between accuracy and precision.
 - F. The candidate will explain the need for standards of measurements.

- IV. The student will describe weather conditions and weather patterns and identify their causes and effects.
 - A. The candidate will describe causes of weather conditions and weather patterns (Gulf Stream, Alberta Clipper, etc).
 - B. The candidate will use models to describe causes and effects of weather conditions and weather patterns.

- V. The student will observe the changes in the freezing point and boiling point of a liquid when any impurity is added and cite examples of real world application of this property.
- A. The candidate will identify real world applications of this property.
 - B. The student will use instruments to measure the freezing point and the boiling point.

ASSIGNMENTS

1. Present to class the Madeline Hunter and generic lesson plan models.
2. Develop a Madeline Hunter lesson plan for grades K-6 in the area of plant life. Critique each plan and give suggestions based on the grade level, content, skills and knowledge
3. Teach the lesson to the class with the necessary support. Evaluate each lesson using a scoring rubric.
4. Select fifteen science related children's books at K-6 grade level. Give the title, author, and illustrator, year of publication, grade level, and brief summary.
5. On the topic Weather, use the outline given, select a grade level, develop a lesson plan with the proper support, and teach the lesson to the class.
6. Using the correct cognitive stage of learning, each group will design an activity table on **weather** at the third grade level. Manipulatives and objectives must be grade appropriate and a rubric will be used to evaluate the activities.
7. Design a performance task. Focus on class observations or class experience charts. Drawing and writing should be used by the students to elaborate what was observed.
8. Write a five page paper on learners with special need who will likely be included in your science class. Set up a classroom setting and explain how you will address the needs of those students. Terms such as *Students with Disabilities, Gifted and Talented Students, Students with Linguistically and Culturally Diverse Backgrounds and federal legislation* should be documented throughout the paper.

Evaluation:

Children's Books	5%
Performance Task	5%
Activity Table	5%
Special Needs learners Paper	15%
Quizzes (3)	30%
Lesson Plans (3)	15%
Lesson Demonstration	5%
Bulletin Board (group)	10%
Final Exam	10%

GRADING STANDARDS

Elementary Education Program (undergraduate)

Grading System

Letter grades are assigned to indicate the academic achievement of the candidates. Grades for all Elementary

Education Courses are determined by the instructor based on the following:

Grade Point	Letter Grade	% Range	Criteria
4.00	A	100-98	Superior performance on all course activities and examinations according to rubrics and tests scores. Superior demonstration of knowledge, skills and dispositions. Superior oral and written communication skills. Exemplary performance in participation, initiative and creativity.
3.70	A-	97-95	Outstanding performance on all course activities and examinations according to rubrics and tests scores. Outstanding demonstration of knowledge, skills and dispositions. Outstanding oral and written communication skills. Outstanding performance in participation, initiative and creativity.
3.30	B+	94-88	Good performance on all course activities and examinations according to rubrics and tests scores. Good demonstration of knowledge, skills and dispositions. Good oral and written communications skills. Good performance in participation, initiative and creativity.
3.00	B	87-85	Good performance on most course activities and examinations according to rubrics and tests scores. Good demonstration of knowledge, skills and dispositions. Good oral and written communication skills. Good performance in participation, initiative and creativity.
2.70	B-	84-80	Good performance on some of the course activities and examinations according to rubrics and tests scores. Good demonstration of knowledge, skills and dispositions. Good oral and written communication skills. Average performance in participation, initiative and creativity.
2.30	C+	79-78	Average performance on all course activities and examinations according to rubrics and test scores. Average demonstration of knowledge, skills and dispositions. Average oral and written communication skills. Some performance in participation, initiative and creativity.
2.00	C	77-75	Average performance on most course activities and examinations according to rubrics and tests scores. Average demonstration of knowledge, skills and dispositions. Average oral and written communication skills.
1.70	C-	74-70	Average performance on some course activities and examinations according to rubrics and tests scores. Average demonstration of knowledge, skills and dispositions. Average oral and written communication skills. <i>Requires repeating the course.</i>
1.30	D+	69-68	Below average performance on some course activities and examinations according to rubrics and tests scores. Average demonstration of knowledge, skills and dispositions. Average oral and written communication skills. <i>Requires repeating the course.</i>
1.00	D	67-65	Below average on most course activities and examinations according to rubrics and tests scores. Below average demonstration of knowledge, skills and dispositions. Below average oral and written communication skills. <i>Requires repeating the course.</i>
0.70	D-	64-60	Below average on all course activities and examinations according to rubrics and test scores. Below average demonstration of knowledge, skills and dispositions. Below average oral and written communication skills. <i>Requires repeating the course.</i>
0.00	F	59 and below	Failed performance on course activities and examinations according to rubrics and test scores. Failed performance of knowledge skills and dispositions. <i>Requires repeating the course.</i>

Academic integrity standards

- Honesty is expected in all areas of your work.
- Plagiarism can lead to dismissal from this class.
- Documentation is required when using the work of others.

Attendance and reading the texts are mandatory. Absences greater than three will result in failing EED 465. It is the candidate's responsibility to acquire any assignment from another classmate in case of an emergency. *Please get the phone numbers and names of three other classmates to call in case of an emergency.*

IMPORTANT INFORMATION:

5. Please refer to Norfolk State University Fall Semester 2005 Registration Day and Evening for all information in reference to Norfolk State University policies and procedures.
6. NO MAKE-UP EXAMS ARE GIVEN.
7. Last day of class:
8. Final Exam:

Americans with Disabilities Act (ADA) statement

University Assessment Statement

BIBLIOGRAPHY

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