Class Meeting Times: Tuesday & Thursday 6:30 – 8:30 pm
Class Room: BH 210
Instructor: Erika Gerhold, Instructor of Mathematics
Phone Number: 410-572-8726
Email Address: egerhold@worwic.edu
Office: Henson Hall 103K
Office Hours: Mondays 10:30 am – 12 pm
Tuesdays 4:15 pm – 6:15 pm
Wednesdays 10:30 am – 12 pm

I. COURSE DESCRIPTION: This course is a continuation of MTH 103, offering a
review and analysis of geometrical principals, logic, and the application of computer
methods to these topics. Hours: 52 lecture. Prerequisite: MTH 103 with a grade of “C” or
better. Usually offered in the fall and spring. Four credits.

II. MATERIALS:
A. TEXTBOOKS:
1. REQUIRED: CONNECT ACCESS CODE for Bennett, A. B., Burton, L. J.,
   for elementary school teachers: An activity approach 10th ed. New York:
   McGraw-Hill.
3. REQUIRED: Manipulative kit that is packaged with the spiral bound activity
   manual by Bennett/Nelson.
4. OPTIONAL: Four-function calculator or graphing calculator.
5. Blackboard: Blackboard is being used as a supplementary site in this course. To
   access course content in Blackboard you need to have access to a computer with
   an internet connection, (other requirements may apply). Please refer to this link for
   computers available on campus that meet these requirements:
   http://www.worwic.edu/Students/LearningResources/ResourceLabs.aspx

   Please follow these directions to access course syllabi and any other
   materials posted for this course:

   Login Information
1. From the Wor-Wic home page, click on myWor-Wic (top-right above Quick Links).
2. Enter your Wor-Wic user ID and password (same as your Wor-Wic email user ID and password) to access the portal homepage.
3. In the “My Blackboard Classes” web part, click on a class listed to be directed to the Blackboard site.
4. Blackboard may also be accessed through Quick Links on the college homepage and also through a link at the bottom of the homepage.

**Blackboard academic integrity and computer usage policy:**
All students logging into Blackboard affirm that they understand and agree to follow the Wor-Wic Community College policies regarding academic integrity and the use of College resources as described in the college catalog. Wor-Wic Community College considers the following as violations of the computer usage policy:
- Using the campus computing network and facilities to violate the privacy of other individuals.
- Sharing of account passwords with friends, family members or any unauthorized individuals
Violators are subject to college disciplinary procedures.

### III. COURSE OBJECTIVES, ASSESSMENT GOALS, AND ASSESSMENT STRATEGIES:
Upon the successful completion of this course the student will demonstrate the ability to:

<table>
<thead>
<tr>
<th>Course Objectives</th>
<th>Assessment Goals</th>
<th>Assessment Strategies</th>
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</thead>
<tbody>
<tr>
<td>1 Demonstrate a thorough understanding of the mathematical concepts taught in grades one through eight. (GEO 1, 2, 3, 4, 5, 6)</td>
<td>A. Define, list, and use the terms factor and multiple, GCF, and LCM. Create models for GCF and LCM of a pair of given numbers.</td>
<td>Homework Group Activities Written Assignments Test Questions Exam Questions</td>
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<tr>
<td></td>
<td>B. Identify given numbers as prime or composite. Define the terms prime and composite. Use the prime test to determine if a given large number is prime or composite.</td>
<td>Homework Group Activities Written Assignments Test Questions Exam Questions</td>
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<td>C. State divisibility rules and use them to determine what numbers will divide a given number.</td>
<td>Homework Written Assignments Test Questions Exam Questions</td>
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<td></td>
<td>D. Use and create models for addition, subtraction, multiplication and division of integers.</td>
<td>Group Activities Written Assignments Test Questions</td>
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<td></td>
<td>E. Use estimation techniques to perform mental calculations with computations involving integers, whole numbers, fractions, and decimals.</td>
<td>Written Assignments Test Questions</td>
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<td><strong>F.</strong> Solve computation and application problems involving whole numbers, integers, fractions, decimals, percents, and proportions.</td>
<td>Homework</td>
<td>Written Assignments Test Questions</td>
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<tr>
<td><strong>G.</strong> Create models to represent fractions, decimals, and percents.</td>
<td>Group Activities</td>
<td>Written Assignments Test Questions</td>
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<tr>
<td><strong>H.</strong> Create models to compute basic operations with fractions, integers, decimals, and percents.</td>
<td>Group Activities</td>
<td>Written Assignments Test Questions</td>
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<tr>
<td><strong>I.</strong> Compare fractions and decimals.</td>
<td>Homework</td>
<td>Written Assignments Test Questions Exam Questions</td>
</tr>
<tr>
<td><strong>K.</strong> Read, write, and round decimals using place value names.</td>
<td>Homework</td>
<td>Written Assignments Test Questions Exam Questions</td>
</tr>
<tr>
<td><strong>L.</strong> Convert units within the English system, within the metric system, and from English to metric and metric to English.</td>
<td>Homework</td>
<td>Group Activities Written Assignments Test Questions Exam Questions</td>
</tr>
<tr>
<td><strong>M.</strong> Perform angle constructions involving the following: Congruent lines, congruent angles, perpendicular bisector, angle bisector, perpendicular lines, and parallel lines.</td>
<td>Homework</td>
<td>Written Assignments Test Questions Exam Questions</td>
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<tr>
<td><strong>N.</strong> Recognize and create the following mappings, given a two-dimensional figure: Translations, reflections, rotations</td>
<td>Homework</td>
<td>Group Activities Written Assignments Test Questions Exam Questions</td>
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<tr>
<td><strong>2</strong></td>
<td>Demonstrate and explain mathematical ideas, patterns, and relationships. (GEO 1, 2, 3, 4, 5, 6, 7)</td>
<td><strong>Selected from A through N above</strong></td>
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<td><strong>3</strong></td>
<td>Use the correct vocabulary to explain alternative methods for mathematical skills and concepts to a variety of listeners using appropriate physical models, and/or activities. (GEO 1, 2, 3,</td>
<td><strong>A.</strong> Explain alternative methods of finding the GCF and LCM given a pair or trio of numbers.</td>
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<td><strong>B.</strong> Explain the prime test used to determine whether a given large number is prime or not.</td>
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</tbody>
</table>
### Exam Questions

- **C.** Explain alternative methods using manipulatives or diagrams for application problems involving integers, whole numbers, decimals and fractions.
  - Homework
  - Written Assignments
  - Test Questions
  - Exam Questions

- **D.** Create and explain models to represent fractions, decimals, and percents.
  - Homework
  - Written Assignments
  - Test Questions
  - Exam Questions

- **E.** Use models to compare fractions and decimals.
  - Homework
  - Written Assignments
  - Test Questions

- **F.** Explain and demonstrate how to convert units within the English system, within the metric system, and from English to metric and metric to English.
  - Homework
  - Written Assignments
  - Test Questions
  - Exam Questions

- **4.** Demonstrate appropriate use of technology in the process of problem-solving. (GEO 5)

### A. Use the graphing calculator to find the LCM and GCF of a pair of numbers.
  - Homework
  - Test Questions
  - Exam Questions

### B. Use the graphing calculator to perform basic operations on integers, fractions, decimals and percents.
  - Homework
  - Test Questions
  - Exam Questions

### IV. COURSE EVALUATION:

The grade will be comprised of the following point values:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Homework</td>
<td>25%</td>
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<tr>
<td>Daily Warm-ups</td>
<td>5%</td>
</tr>
<tr>
<td>Praxis Question Presentation</td>
<td>5%</td>
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<tr>
<td>Portfolio Assignment</td>
<td>10%</td>
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<tr>
<td>Tests (10% each)</td>
<td>40%</td>
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<tr>
<td>Final Exam</td>
<td>15%</td>
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A letter grade will be awarded according to the following criteria:

- **A** 90 – 100%
- **B** 80 – 89%
- **C** 70 – 79%
- **D** 60 – 69%
- **F** Below 60%

Students needing additional help should meet with their instructor during his or her office hours and/or attend statistics tutoring sessions in the Math Lab (BH 309) at the following days and times:

- Monday – Thursday: 8:30 a.m. – 8 p.m.
- Friday: 8:30 a.m. – 4 p.m.
- Saturday: 10 a.m. – 3 p.m.
Sunday: closed

V. ACADEMIC INTEGRITY: Academic integrity is expected of all students. Cheating and plagiarism are violations of academic integrity. Any student found violating the academic policy will receive an automatic “0” for the assignment and then the matter may be turned over to the Student Disciplinary Committee. Documented evidence of the plagiarism or cheating will be kept in the Math and Science Office.

Plagiarism: In both oral and written communication, the following guidelines for avoiding plagiarism must be followed:

1. Any words quoted directly from a source must be in quotation marks and cited.
2. Any paraphrasing or rephrasing of the words and/or ideas of a source must be quoted.
3. Any ideas or examples derived from a source that are not in the public domain or of general knowledge must be quoted.
4. **ALL PAPERS AND PRESENTATIONS MUST BE THE STUDENT’S OWN WORK.**

There are ambiguities in concepts of plagiarism. Each instructor will be available for consultation regarding any confusion a student may have.

Cheating: Cheating is the act of obtaining information or data improperly, or by dishonest or deceitful means. Examples of cheating are copying from another student’s paper, obtaining information illegally on tests, and using crib notes or other deceitful practices. The college guidelines concerning academic misconduct will be strictly enforced in this course. Please refer to the Appendix of the current college catalog for the full description of policies pertaining to student conduct.

VI. TENTATIVE SCHEDULE:

<table>
<thead>
<tr>
<th>WEEK</th>
<th>MATERIAL COVERED:</th>
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<tbody>
<tr>
<td>1 – Jan. 17, 19</td>
<td>Class Overview, Section 4.1 – Factors and Multiples</td>
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<td>2 – Jan. 24, 26</td>
<td>Section 4.2 – GCF &amp; LCF</td>
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<tr>
<td>3 – Jan. 31, Feb. 2</td>
<td>Review Chapter 4, <strong>Chapter 4 Exam – Number Theory</strong></td>
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<td>4 – Feb. 7, 9</td>
<td>Sections 11.1 &amp; 11.2 – Systems of Measurement, Area &amp; Perimeter</td>
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<td>5 – Feb. 14, 16</td>
<td>Section 11.2 cont., Section 11.3 – Surface Area &amp; Volume</td>
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<td><em>This week Practice Praxis Questions &amp; Presentation dates will be assigned; dates are Feb. 28th and March 2nd</em></td>
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<td>6 – Feb. 21, 23</td>
<td>Section 11.3 Continued, Review of Chapter 11</td>
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<td><strong>Chapter 11 Exam - Measurement</strong></td>
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<tr>
<td>7 – Feb. 28, March 2</td>
<td>Section 5.1 – Integers</td>
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<td><em>Praxis Questions Presentation</em></td>
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</table>
8 – March 7, 9  No classes – Spring Break
9 – March 14, 16 Section 5.2 & 5.3 – Fractions
10 – March 21, 23 Section 5.3 cont., Chapter 5 Review
11 – March 28, 30 Chapter 5 Exam - Integers, Section 6.1 - Decimals & Rational Numbers
12- April 4, 6 Section 6.2 – Operations with Decimals
13-April 11, 13 Section 6.3 – Ratio, Percent & Scientific Notation
   Review of Chapter 6
14- April 18, 20 Chapter 6 Exam - Decimals, Rational & Irrational Numbers
   Final Exam Review
15– April 27 Final Exam – Thursday, April 27th at 6:30 pm

VII. IMPORTANT DATES:
   Last day to add – January 24
   Last day to drop – February 7
   Last day to withdraw – March 29
   College closed – March 6 – 10
   Last day of classes – April 20
   Final Exam – April 27

VIII. LEARNING EXPERIENCES AND DUE DATES:

A. Homework Assignments – Each class session there will be an online/written homework assigned that will be due the following class. The online portion will be due before the start of class and written work must be turned in at the beginning of class, even if the student is absent. Late assignments will NOT be accepted unless arrangements are made ahead of time. Students having difficulty with the homework are encouraged to visit the instructor during her office hours or go to the math lab for help. (GEO 1, 4, 5, 6)(CO 1-3)

B. Daily Warm-ups – Each class period will begin with a graded warm-up. These problems will be open note. Students must remain until the end of class to get credit for the warm-up. (GEO 1, 4, 6)(CO 1-3)

C. Praxis Question Presentation (February 27th and March 2nd) – Each student will be assigned one question from the Core Praxis practice workbook to explain and present the step-by-step solution. The presentation may be a power point presentation, a
poster presentation, or using the whiteboard with some visual aids or diagrams. A handout should be provided for all students in the class outlining the Praxis question and the multiple choice answers. The solutions will be demonstrated and explained by the student with opportunities for questions from other students. A similar multiple choice question for the assigned question must be created as a practice exercise for students to attempt with no help. Separate solutions must be provided for students to check their understanding. This presentation should be approximately 5 – 10 minutes in length. (GEO 2, 4, 5, 9) (CO 1-3)

a) **Writing Assignment** – Each student will complete a portfolio of their work throughout the semester. It will be due at the time of the final exam. It will be your responsibility to make up or correct any missed class assignments that are part of the portfolio. Portfolio entries will be given periodically as writing assignments that require explanations to be written in dialogue form and examples to be created and explained in an organized and logical format, as a teacher would show an example to elementary students. Organization, neatness, and a thorough explanation are key elements in creating a portfolio entry that demonstrates a thorough understanding and an ability to explain the concept. Students needing assistance in the preparation of the written assignment should meet with their instructor during his or her office hours and/or contact the Reading and Writing Center (MTC204) for technical assistance. (GEO 1, 3, 4, 5, 6, 9) (CO 1-3)

D. **Tests** – Tests dates are stated in the tentative schedule and will be announced in advance by the instructor. A maximum of one test will be permitted as a make-up, provided the student has notified the instructor of the legitimate reason BEFORE the exam is given in class. (GEO 1, 4, 6) (CO 1, 2)

E. **Final Exam** – A cumulative final exam will be administered at the end of the semester to all students enrolled in the course. The date of the final exam is **Thursday, April 27th at 6:30 pm**. If a student is unable to be present for the final exam date because of an emergency, the student must contact the instructor no later than the day of the scheduled exam by phone or email. Arrangements must be made to approve or disapprove the absence and arrange an alternate time for the make-up test to be taken within a 24-hour period. If no contact is made by the day of the final exam, a zero will be assigned for the exam grade. A total of 150 points is possible for the final exam. (GEO 1, 4, 6) (CO 1, 2)

F. **Emergency Information Statement**: In the event of severe inclement weather or other emergency, information about the closing of the college will be communicated via e2Campus and the College’s website. Faculty will communicate with students about their courses and course requirements, such as assignments, quiz and exam dates, and class and grading policies via Blackboard. Students will be responsible for completing all these assignments in accordance with class policies.

G. **Students with Disabilities** – Wor-Wic provides reasonable accommodations for students with disabilities, in compliance with the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973. If you are in need of
accommodations, please contact the counseling office at (410) 334-2899. For more information, see Wor-Wic's Services for Students with Disabilities web page.

H. Sexual Violence Disclosures - Wor-Wic Community College seeks a campus free of sexual violence which includes sexual harassment, domestic violence, dating violence, stalking, and/or any form of sex or gender discrimination. Please be aware that if a student discloses a personal experience verbally or in writing as a Wor-Wic student to a faculty or staff member, the employee cannot maintain confidentiality and has the mandatory responsibility to notify one of the college’s Title IX coordinators. However, if you’d like to make a confidential disclosure of any such violence, you can contact Wor-Wic’s director of counseling (X-2900) or you can contact the Life Crisis Center at 410-749-HELP or 2-1-1. Information on rights of victims of sexual violence and related resources is available in the college catalog and at the public safety page of Wor-Wic’s website: http://www.worwic.edu/Administration/PublicSafety.aspx.