

Honor Discrete Mathematics
Hopewell High School
2019-2020

Mr. Puma Room #909	Email: anthony1.puma@cms.k12.nc.us School phone number: (980) 343-5988 https://sites.google.com/cms.k12.nc.us/mrpuma/home	Tutoring Availability After school on Thursday 2:15-3:15
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Course Description: Discrete Mathematics introduces students to the mathematics of networks, social choice, and decision making. The course extends students' application of matrix arithmetic and probability. Applications and modeling are central to this course of study. Appropriate technology, from manipulatives to calculators and application software, should be used regularly for instruction and assessment.

Overview of topic/ units for this course. Content and time frames are subject to change.

Days	NCSCS Objectives	Textbook*	Comments, Resources
On Going	Honors Only 2.03 Model and solve problems involving fair outcomes: e) Conduct in-depth investigations of municipal, state, and national elections as they occur. Include pre-election polls, election law, and voting patterns, f) Conduct in-depth investigations of legislative and congressional apportionment with respect to a recent census. Include legal and historic perspectives.	• Chapter 12: <i>Electing the President</i> • Chapter 14 (especially 14.4)	
10	2.03 Model and solve problems involving fair outcomes: b) Election Theory, c) Voting Power.	Chapters 9, 10, 11	Project on Voting Power in electing the next president.
10	2.03 Model and solve problems involving fair outcomes: a) Apportionment d) Fair Division	Chapters 13 - 14	Project on Apportionment Methods
15	1.02 Use graph theory to model relationships and solve problems.	Chapters 1 - 3	
Mid Semester Exam			

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Days	NCSCS Objectives	Textbook*
9	2.01 Describe data to solve problems, a) Apply and compare methods of data collection, b) Apply statistical principles and methods in sample surveys, c) Determine measures of central tendency and spread, d) Recognize, define, and use the normal distribution curve, e) Interpret graphical displays of data, f) Compare distributions of data.	Chapter 5 - 7 Supplemental Resources
14	2.02 Use theoretical and experimental probability to model and solve problems, a) Use addition and multiplication principles, b) Calculate and apply permutations and combinations, c) Create and use simulations for probability models, d) Find expected values and determine fairness, e) Identify and use discrete random variables to solve problems, f) Apply the Binomial Theorem.	Chapter 8 Supplemental Resources
7	3.01 Use recursion to model and solve problems, a) Find the sum of a finite sequence, b) Find the sum of an infinite sequence, c) Determine whether a given series converges or diverges, d) Write explicit definitions using iterative processes, including finite differences and arithmetic and geometric formulas	Supplemental Resources
8	1.01 Use matrices to model and solve problems, a) Display and interpret data, b) Write and evaluate matrix expressions to solve problems. This includes Game Theory	Chapter 15 & Supplemental Resources

Powerschool: Parents and students can access real time attendance and grade information.
[Powerschool log-in information](#)

Textbook: For All Practical Purposes "Mathematical Literacy in Today's World" Eighth Edition
 COMAP, Freeman

Materials Needed for Class

1. Notebook and paper for taking notes in class and storing notes and returned work
2. No. 2 sharpened pencils or mechanical pencils
3. Graphing Calculator- TI 84+
4. Microsoft Excel or Google Spreadsheets

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About the Teacher: This is my 19th year teaching in North Carolina and 4th year at Hopewell High School. I have taught at North Meck(10yrs), Hough(3yrs), and Mountain Island Charter Schools(2yrs). I have also coached soccer and lacrosse. I was ranked #3 Math teacher in CMS in 2007 using growth model. I am from Rome, NY. I received my Bachelor of Science in Mathematics from Clarkson University in Potsdam, NY in 1998.

- **Classroom Rules**

Refer to Hopewell School rules. I will enforce school policies in addition to the following:

1. When the bells rings, the student must be in the assigned seat with needed materials ready and begin on the Warm-up activity.
2. All assignments must be in pencil, notes may be done in pen
3. No heads on the desk or sleeping permitted.
4. No person grooming in class. (brushing hair, lotion, make-up, etc..)
5. No eating or drinking in class with the exception of bottled water.
6. Remain seated until the bell rings.
7. Respect yourself and others
8. No cell Phones, if they are visible they will be confiscated and follow Hopewell's Policy
9. Severe Disruptions: Students will be sent to lock-out and a Discipline referral will follow
10. No hats/hoods are allowed in class
12. Do not do other class assignments in class
13. No cheating (giving or receiving answers or copying homework)

Grade Calculations: Grading Scale

90-100 A 80-90 B 70-80 C 60-70 D 0 - 59 F

Informal Grades 30%

Formal Grades 70%

Remediation and Reassessment : Every student at Hopewell High School will be given an opportunity to master course objectives through a variety of strategies provided during class and outside of class. Student's formal grades will be broken down by objectives. After each formal assessment, every student will be given the opportunity to improve their mastery of specific concepts and then demonstrate this improvement to improve their grade." Students who score a 79% or below can retest after completing remediation (Test corrections and fill

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out the specific form). A final quarter test will be given and that will average the two grades if they improve (maximum grade they can achieve is a 79). It is the student's responsibility to initiate and complete the remediation and retest process within two weeks after the original test date (unless other arrangements are made with the teacher).

Attendance Policy: It is expected that students arrive to class before the tardy bell. Students who arrive late must get a tardy pass from student services. Students who miss more than 10 class periods in a semester must make arrangements with the teacher to recover this missed class time. Students who do not make up missed time, over 10 class periods, will receive a grade of "F" according to N.C. law.

Leaving Class and Dismissal : Students should not ask to leave the room for any reason other than a restroom break or an emergency. Per school policy, no one is to leave class the first or last 15 minutes of class. The classroom teacher will dismiss the class - not the bell.

Honor Code Policy/Violation:

CMS-Hopewell High School Honor Code: Hopewell High School is committed to the academic, social, and ethical development of all students. Plagiarism and cheating do not allow for a student to maximize their learning and compromises trust between student and teacher. It is the expectation that all students will demonstrate responsibility and integrity. Responsible students take ownership for their learning and their actions at all times. When students show integrity they do the right thing when no one else is looking.

Consequences for Honor Code Violations:

1st Offense: 0 for assignment, teacher - parent contact, student completes a reflection, opportunity to redo assignment (no grade higher than a 79%)

2nd Offense: 0 for assignment, 1 day ISS, and required parent conference. Student make up assignment for up to a 50% grade.

3rd Offense: 0 for assignment, parent contact and 1 day OSS. Student NOT eligible for re-take.

Tardies will be teacher managed. Students are considered tardy if they are not in your classroom at the sound of the bell. Being in the horseshoe is no longer acceptable. Students must be in class. If a student is late, they will enter the teachers classroom and the teacher will record the tardy in PS. Students entering more than 10 minutes late will be counted as truant and report to lockout room for the block (unexcused absence)

1-4 Unexcused Tardies: Teacher records tardy, verbally warns student about expectations and calls home by the fourth tardy to speak to a parent/guardian.

5 Unexcused Tardies: Teacher speaks with student, calls home, and submits disciplinary referral. Disciplinary actions include a period of In School Suspension (ISS) or other disciplinary consequences.

5-9 Unexcused Tardies: Teacher calls home, submits disciplinary referral, and student is given consequences. Range of consequences includes In School Suspension (ISS) or revocation of school privileges.

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10+ Unexcused Tardies: Student is given Out of School Suspension (OSS) and parent conference is held prior to student returning to school.

Truancy: A student is considered *truant* if they report to class more than 10 minutes after class without an excused pass. Students will report to the lockout room for the entire block and receive an unexcused absence.

Personal Electronic Device: Hopewell High School enforces a strict ban on electronic devices during the instructional setting. Personal electronic devices include, but are *not* limited to: cellular phones, pagers, smart phones, music and media players, gaming devices, tablets, laptop computers, smartwatches, personal digital assistants, earphones, headphones, iPods, and speakers. CMS recommends that students do not bring personal electronic devices to school. Hopewell High School assigns each student a laptop for their use.

-Student use of an electronic device will be permitted from 6:45 a.m. through 7:07 a.m. (breakfast) during the student's assigned lunch, and before/after school **ONLY**. Headphones and earbuds are **NOT** permitted during school hours except during breakfast and the student's assigned lunch. Once students enter the instructional environment, cell phones are strictly prohibited. Student use of phones for instructional purposes in the classroom is at the classroom teacher's discretion.

-Students are required to ask their teacher's permission to use an electronic device for academic purposes.

Personal electronic devices may not be used to cause any disruption in the educational process or for unethical or illegal purposes. Prohibited uses include, but are *not* limited to: cheating on assignments and/or tests, harassing or bullying others, and taking or distributing unauthorized photographs or recordings of other people. Students are not permitted to record school activities held during school hours without explicit permission from a teacher or staff member. **Students caught filming/recording disruptive or prohibited behavior on campus will be subject to discipline.**

-Students will not be able to answer phone calls or video chat during breakfast, lunch or class transitions. Students must use the main office phone or teacher office phones. Permission must be granted in advance by the teacher.

-Parents/Guardians are encouraged to call the front office if an important message must be relayed to the student.

Student Consequences:

First offense: The device will be confiscated and secured in the office. A written warning will be issued to the student. A parent or legal guardian may pick it up during after school hours between 2:30 and 3:30 pm or 6:45 and 7:15 am. If a student refuses to surrender the device, a disciplinary consequence will be issued, up to and including suspension.

Future offenses will be considered insubordination and consequences assigned accordingly. This can include suspension and revocation of technology privileges.

*****All student consequences are subject to administrative review.** An individual student consequence may be increased or decreased, depending on the severity of the incident. These

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changes will be made at the discretion of the student's administrator. CMS will not be responsible or liable for, the theft, loss, data loss, damage to any personal electronic device brought to school.

Late Work : Per CMS policy, students will receive a maximum of 65% on any late work showing **concerted** effort, if turned in at the beginning of class one day after the original due date. After this, late work showing a concerted effort will receive a 50% if turned in prior to the first day of the midterms (1st and 3rd quarters) or the final exams (2nd and 4th quarters).

Make up Work : When a student is absent from class, arrangements for all make-up work, including homework, quizzes and review quizzes/tests must be made within five days of returning. Arrangements need to be made by the student with the teacher to complete missed assignments. If a student returns from a 1 day absence on the day of a test, he or she will be expected to take the test with the class. Final responsibility for making up class work and test lies with the student. The student **must be responsible for making up all missed work and tests**. If a student is absent on the day of a test, he or she must make arrangements to make up the test after school with the teacher.

Communication: Accurate information about what is going on in school does not always make it from students to parents. The following can help ensure you are aware of what is going on in class and your child's progress. I will send out class email (distribution list) on due dates on major assessments and other pertinent information. I will use your information from powerschool, if is incorrect be sure to email me your correct email and information so you are informed.

1. **Powerschool**: Parents and students can get a log in to access information on this website where they can access real time attendance and grade information. If you need your login information, please contact the school.

2. **E-mail**: My email address is at the top of the page, please feel free to contact me.

Unless otherwise requested by the parent through e-mail, the first formal indication of your child's grade will be a mid-quarter progress-report. Please use Power School to monitor your child's grades on a daily basis.