



# Integrated Math III

## COURSE SYLLABUS



Instructor: Mr. Jagpal

ROOM: **H-04**

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**Course Description**

Integrated Math III completes the three-course sequence of Integrated Mathematics courses required for high school graduation. This course addresses the Common Core Standards for Integrated Math III as described in the state framework. It brings together knowledge acquired in the previous two courses and uses it as a bridge to expand into more complex ideas. Students expand their knowledge of functions, right-triangle trigonometry, and experiences with data as they solve sophisticated problems in preparation for enrolling in advanced mathematics courses.

**Textbook & Grading Categories**

Textbook: Houghton Mifflin Harcourt Integrated Mathematics 3 (*Online*)

**Coursework will be weighted as follows:**

<b>1. Performance Task</b>	10%						
<b>2. Homework</b>	10%						
<b>3. Quizzes</b>			10%				
<b>4. Chapter Test</b>			60%				
<b>5. Final Exam</b>					10%		
<b>Total:</b>	20%	+	70%	+	10%	=	100%

**Letter grades will be assigned according to the following percentages:**

<b>Grading Scale:</b>	
90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
0 - 59%	F

**Online Viewing of Student Progress via Aeries.net Parent Portal**

The DHS Aeries.Net Parent and Student Portal is designed to allow parents and students access to their student's information such as grades, report cards, attendance, schedules, and other student information in an effort to facilitate and improve communication between home and school.

**Attendance Expectations**

Regular attendance is very important to success in this course. Please do your best to attend class every day. If you cannot attend class, please get the notes from a friend or the class website and copy them into your notebook as soon as possible. *Students must be seated in their seats and ready to learn when the bell rings or they will be marked tardy and will be disciplined accordingly.*

Students that miss an assessment due to an excused absence must make the assessment up on their own time within two days of returning to class. Failure to make up the assessment will result in a loss of the first opportunity to demonstrate mastery of the objectives and will result in the student needing to complete the practice assignments and complete a re-assessment.

**Specific Classroom Rules**

1. Raise your hand to talk and respect others while they talk, including the teacher.
2. This class is not your nap time. Please refrain from sleeping *at all times*. Remember to sit up straight
3. Cheating is not tolerated under any circumstances and will result in an automatic zero and referral under the district/school policy. Talking is not allowed during assessments.
4. Please come to class prepared to learn *every day*. This includes ***bringing a pencil, a notebook***, your textbook, your folder/binder, and any completed practice.

5. ***Stay on task!*** If you are given time to work on practice, then work on practice. If you should be taking notes, then take notes. If you have a question, ask Mr. Jagpal! Come to class on time. You must be seated in your seat ready to learn when the bell rings or you will be marked tardy. Unexcused tardiness will not be tolerated.
6. ***Restroom pass*** is limited to 1 passes per week. No rollovers. Overuse = Tardy!!!.
7. The tools available in the classroom are for everyone's use. Please do not remove anything from the classroom without Mr. Jagpal's permission.
8. Keep your area clean. You are asked to clean your area at the end of the period and make sure that it at least as clean as it was when you arrived.
9. Keep your cell phone out of the room or packed away. I don't want to see it! *See Electronic Device Expectations below*
10. Be respectful to substitute instructors. Any students who cause problems for a substitute teacher will automatically suspend home.

☐ **Consequence**

1. 3-Verbal warning with Lunch Detention on the 3rd warning.
2. Hold after class for conference with the student + After School Detention
3. Parent contact, Referral to the VP.
4. Recommendation to Intervention.

☐ **Electronic Device Expectations**

Possession and/or use of a cell phone is not required or needed to complete the math curriculum at Delhi High School. Students are strongly encouraged to keep their phones and other small personal electronic devices in their locker. Students are required to keep their small personal electronic devices out of view and are not allowed to use them unless prior approval is obtained from the instructor and all electronic devices must be registered according to school policy. Any student in violation of this policy will have their phone taken away and the student handbook guidelines will be applied.

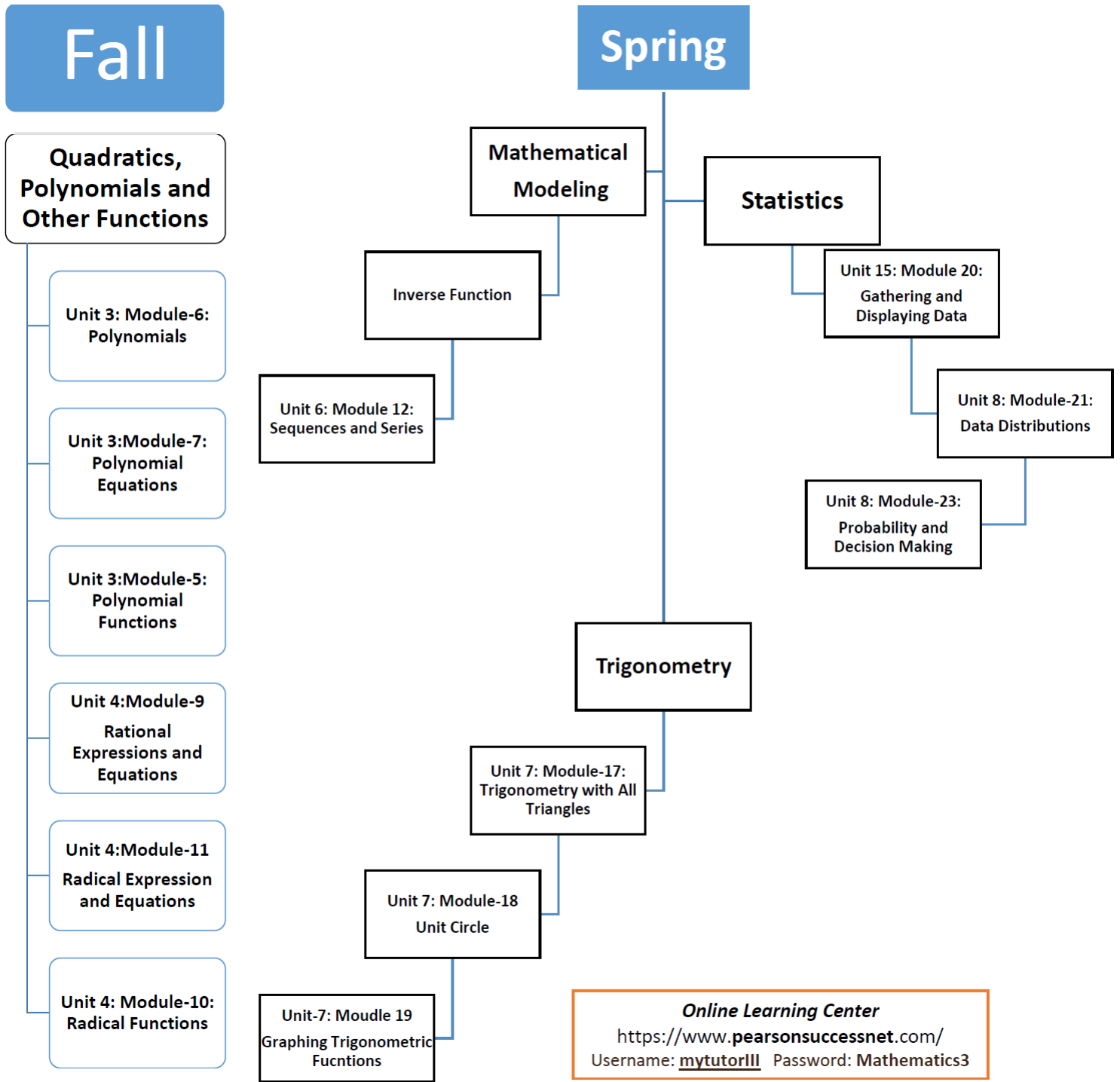
Chromebooks will be used throughout the year in class. Any student wishing to use personal electronic devices must have the approval of the instructor before they will be allowed to be used in class and these devices must be registered according to school policy.

☐ **List of Assessment Standards**

1. **N-RN.1 » Number and Quantity:** Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents.
2. **A-SSE.2 » Algebra:** Use the structure of an expression to identify ways to rewrite it.
3. **A-APR.1 » Algebra:** Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.
4. **A-APR.2 » Algebra:** Know and apply the Remainder Theorem: For a polynomial  $p(x)$  and a number  $a$ , the remainder on division by  $x - a$  is  $p(a)$ , so  $p(a) = 0$  if and only if  $(x - a)$  is a factor of  $p(x)$ .
5. **A-APR.5 » Algebra:** Know and apply the Binomial Theorem for the expansion of  $(x + y)^n$  to the  $n$  power in powers of  $x$  and  $y$  for a positive integer  $n$ , where  $x$  and  $y$  are any numbers, with coefficients determined for example by Pascal's Triangle.
6. **A-APR.6 » Algebra:** Rewrite simple rational expressions in different forms; write  $\frac{a(x)}{b(x)}$  in the form  $\frac{q(x)}{b(x)} + \frac{r(x)}{b(x)}$ , where  $a(x)$ ,  $b(x)$ ,  $q(x)$ , and  $r(x)$  are polynomials with the degree of  $r(x)$  less than the degree of  $b(x)$ , using inspection, long division, or, for the more complicated examples, a computer algebra system.
7. **A-APR.7 » Algebra:** Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.
8. **A-REI.2 » Algebra:** Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.
9. **F-IF.4 » Functions:** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship.

10. **F-IF.5 » Functions:** Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.
11. **F-IF.7.b » Functions:** Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.
12. **F-BF.2 » Functions:** Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.
13. **F-BF.4.a » Functions:** Solve an equation of the form  $f(x) = c$  for a simple function  $f$  that has an inverse and write an expression for the inverse.
14. **F-TF.1 » Functions:** Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.
15. **F-TF.2 » Functions:** Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.
16. **F-TF.7 » Functions:** Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context.
17. **F-TF.8 » Functions:** Prove the Pythagorean identity  $\sin^2(\theta) + \cos^2(\theta) = 1$  and use it to find  $\sin(\theta)$ ,  $\cos(\theta)$ , or  $\tan(\theta)$  given  $\sin(\theta)$ ,  $\cos(\theta)$ , or  $\tan(\theta)$  and the quadrant of the angle.
18. **G-SRT.8 » Geometry:** trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.
19. **G-SRT.10 » Geometry:** Prove the Laws of Sines and Cosines and use them to solve problems.
20. **G-GPE.1 » Geometry:** Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.
21. **S-ID.4 » Statistics and Probability:** Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.
22. **S-IC.1 » Statistics and Probability:** Understand statistics as a process for making inferences about population parameters based on a random sample from that population.
23. **S-IC.2 » Statistics and Probability:** Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation.
24. **S-IC.4 » Statistics and Probability:** Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.

☐ Mapping to the Textbook



☐ **General Course Timeline**  
See the Calandera attached.

*Signature Acknowledgement Page for student and parent*

Please complete, detach, and return this portion of the Course Syllabus to Mr. Jagpal

I have read the Course Syllabus and pledge to give my best effort.

\_\_\_\_\_  
Student Printed Name:

\_\_\_\_\_  
Student Signature:

\_\_\_\_\_  
Date

I have read the Course Syllabus and will contact Mr. Jagpal if I have any questions.

\_\_\_\_\_  
Parent/Guardian Printed Name

\_\_\_\_\_  
Parent/Guardian Signature

\_\_\_\_\_  
Date



*Note: This syllabus is subject to change at the discretion of the instructor.*