



Dominican International School

台北市私立道明外僑學校
No. 76, Dazhi Street, Taipei (104042), Taiwan, R.O.C.
10464 臺北市中山區大直街 76 號



COURSE SYLLABUS

School Year	2026-2027
Subject	Algebra 2
Grade Level	10
Teacher	Joanne Ward
Email	jward@dishs.tp.edu.tw

COURSE DESCRIPTION:

Algebra 2 builds on the concepts covered in Algebra 1 and Geometry. The course covers advanced algebraic concepts and provides a foundation for higher-level mathematics courses. Topics include polynomial expressions, equations and functions, rational expressions, complex numbers, logarithms, sequences and series, and an introduction to trigonometry

COURSE OBJECTIVES: By the end of the semester/school year, (SWAT) Students will be able to:

- Perform operations on polynomial, rational, and radical expressions.
- Solve various types of equations and inequalities.
- Analyze and graph polynomial, rational, exponential, and logarithmic functions.
- Understand and apply the concepts of sequences and series.
- Use trigonometric identities to solve problems.

Apply algebraic concepts to real-world scenarios

PRIMARY TEXTBOOKS AND OTHER RESOURCES:

Larson, R., & Boswell, L. (2022). *Big Ideas Math: Algebra 2*. Big Ideas Learning.

Students are required to bring laptops to class and will use following teacher's instructions.

Scientific calculators may be used if instructed by the teacher.

GRADING SYSTEM/ASSESSMENT:

- Tests and Quizzes: 30%
- Homework, Seatwork, and Projects: 30%
- Quarter Exam: 30%
- Deportment: 10%

ADDITIONAL INFORMATION:

Please always check Google Classroom for homework and announcements.



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HOMEWORK POLICY:

All homework must be submitted digitally through Google Classroom. Hard copy submissions will not be accepted.

DUE DATES:

- Homework must be submitted by the stated due date and time.
- Incomplete homework will result in Project I.
- Once a Project I has been issued, students who complete all required homework on or before the Project I due date may request the teacher's signature to have Project I waived.
- Late work will be accepted with 1 point deducted per day after the due date. However, in cases of excused absences with proper documentation, as outlined in the school handbook, no points will be deducted for late submissions.

SUBMISSION GUIDELINES:

- Ensure your work is complete, clearly labeled with your full name, and submitted in the correct format before the deadline.
- After uploading your assignment, verify that you have submitted the correct file and that it is accessible.
- Be sure to click the "Turn In" button. Otherwise, the instructor will not receive your assignment.
- Technical issues are not an excuse for late submissions. Students are responsible for allowing sufficient time to upload and submit their work successfully.

ACADEMIC DISHONESTY:

Academic Dishonesty means employing a method or technique or engaging in conduct in an academic endeavor that contravenes the standards of ethical integrity expected at DIS.

Academic dishonesty includes but is not limited to the following:

- Purposely incorporating the ideas, words of sentences, paragraphs, or parts thereof without appropriate acknowledgment and representing the product as one's work;
- Representing another's intellectual work, such as photographs, paintings, drawings, sculpture, research, or the like, as one's own, including failure to attribute content to an AI.
- Employing a tutor, using Artificial Intelligence without acknowledgment, getting a parent to write a paper or do an assignment, and paying for an essay to be written by someone else and presented as the student's work.
- Committing any act that a reasonable person would conclude, when informed of the evidence, to be a dishonest means of obtaining or attempting to obtain credit for academic work.

Any act of academic dishonesty will result in an automatic zero on the entire assignment/learning task.



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WEEKLY SCHEDULE

First Quarter Tentative Course Content

Week & Date	Topics / Projects / Assessments
Week 1 Aug 10 - 14	Monday Class Preparation ~ Student Holiday Tuesday Morning Assembly Friday Opening Mass & Assumption of Our Lady 8:00 1.1 Parent Functions and Transformations 1.1 Parent Functions and Transformations 1.2 Transformations of Linear and Absolute Value Functions 1.3 Modeling with Linear Functions
Week 2 Aug 17 - 21	1.1-1.3 Review 1.1-1.3 Review 1.1-1.3 Test
Week 3 Aug 24 - 28	1.4 Solving Linear Systems 2.1 Transformations of Quadratic Functions 2.2 Characteristics of Quadratic Functions 2.4 Modeling with Quadratic Functions 1.4, 2.1, 2.2, 2.4 Review
Week 4 Aug 31 - Sep 4	1.4, 2.1, 2.2, 2.4 Review 1.4-2.4 Test 2.3 Focus of a Parabola 2.3 Focus of a Parabola
Week 5 Sep 7 - 11	3.2 Complex Numbers 3.2 Complex Numbers 2.3&3.2 Review 2.3&3.2 Review 2.3&3.2 Test
Week 6 Sep 14 - 18	3.1 Solving Quadratic Equations 3.3 Completing the Square 3.3 Completing the Square 3.4 Using the Quadratic Formula
Week 7 Sep 21 - 25	3.1, 3.3&3.4 Review 3.1, 3.3&3.4 Review 3.1, 3.3&3.4 Test T-W-Th Pre-Exam Days



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	Friday	Moon Festival ~ Public Holiday
Week 8 Sep 28 - Oct 2	Monday Thursday Friday	Confucius' Birthday ~ Public Holiday Major Exams Day 1 Major Exams Day 2
Week 9 Oct 5 - 9	Monday T-W-Th Friday	Record Day ~ Student Holiday Teachers Conference ~ Student Holiday Double 10 Day ~ Public Holiday

Second Quarter Tentative Course Content

Week & Date	Topics / Projects / Assessments
Week 1 (10) Oct 12 - 16	3.5 Solving Nonlinear Systems of Equations 3.5 Solving Nonlinear Systems of Equations 3.6 Quadratic inequalities 3.6 Quadratic inequalities 3.5 & 3.6 Review
Week 2 (11) Oct 19 - 23	3.5 & 3.6 Review 3.5 & 3.6 Test 4.1 Graphing Polynomial Functions 4.1 Graphing Polynomial Functions 4.2 Adding, Subtracting, and Multiplying Polynomials
Week 3 (12) Oct 26 - 30	4.3 Dividing Polynomials 4.1, 4.2, & 4.3 Review 4.1, 4.2, & 4.3 Review 4.1, 4.2, & 4.3 Test Monday Retrocession Day ~ Public Holiday
Week 4 (13) Nov 2 - 6	4.4 Factoring Polynomials 4.4 Factoring Polynomials 4.5 Solving Polynomial Equations 4.5 Solving Polynomial Equations
Week 5 (14) Nov 9 - 13	4.4, & 4.5 Review 4.4, & 4.5 Review 4.4, & 4.5 Test 4.6 The Fundamental Theorem of Algebra
Week 6 (15) Nov 16 - 20	4.6 The Fundamental Theorem of Algebra 4.7 Transformations of Polynomial Functions 4.7 Transformations of Polynomial Functions



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	4.6-4.7 Review
Week 7 (16) Nov 23 - 27	4.6-4.7 Review 4.6-4.7 Test 4.8 Analyzing Graphs of Polynomial Functions T-W-Th Pre-Exam Days Friday Grade 12 Exams
Week 8 (17) Nov 30 - Dec 4	4.8 Analyzing Graphs of Polynomial Functions 4.9 Modeling with Polynomial Functions 5.1 nth Roots and Rational Exponents 4.8-5.1 Review 4.8-5.1 Review 4.8-5.1 Test Monday Grade 12 Exams
Week 9 (18) Dec 7 - Dec 11	Monday TBD Tuesday Foundation Day Mass 9:00, Cutting of the Cake Ceremony, Christmas Fair, (Whole day) Wednesday TBD Thursday Major Final Exams half day Friday Major Final Exams half day
<i>Dec 14 to Jan 1 Christmas Break</i>	

Third Quarter Tentative Course Content

Week & Date	Topics / Projects / Assessments
Week 1 (19) Jan 4 - Jan 8	5.2 Properties of Rational Exponents and Radicals 5.2 Properties of Rational Exponents and Radicals 5.3 Graphing Radical Functions Monday Record Day ~ Student Holiday Friday New Year Mass at 8:00
Week 2 (20) Jan 11 - Jan 15	5.3 Graphing Radical Functions 5.2-5.3 Review 5.2-5.3 Review 5.2-5.3 Test
Week 3 (21) Jan 18 - Jan 22	5.4 Solving Radical Equations and Inequalities 5.5 Performing Function Operations 5.6 Composition of Functions 5.7 Inverse of a Function



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Week 4 (22) Jan 25 - Jan 29	5.7 Inverse of a Function 5.4, 5.6, & 5.7 Review 5.4, 5.6, & 5.7 Review 5.4, 5.6, & 5.7 Test
Week 5 (23) Feb 1 - Feb 5	6.1 Exponential Growth and Decay Functions 6.2 The Natural Base e Thursday Little New Year's Eve ~ Public Holiday Friday Lunar New Year ~ Public Holiday
February 8 to 12 Chinese New Year Holiday	
Week 6 (24) Feb 15 - Feb 19	6.3 Logarithms and Logarithmic Functions 6.3 Logarithms and Logarithmic Functions 6.1-6.3 Review
Week 7 (25) Feb 22 - Feb 26	6.1-6.3 Review 6.1-6.3 Test 22-26 IOWA Assessments
Week 8 (26) Mar 1 - Mar 5	6.4 Transformations of Exponential and Logarithmic Functions 6.5 Properties of Logarithms 6.6 Solving Exponential and Logarithmic Equations Monday Memorial Day ~ Public Holiday T-W-Th Pre-Exam Days
Week 9 (27) Mar 8 - Mar 12	6.7 Modeling with Exponential and Logarithmic Functions" 6.4-6.7 Review 6.4-6.7 Review 6.4-6.7 Test
Week 10 (28) Mar 15 - Mar 19	7.1 Inverse Variation 7.2 Graphing Rational Functions 7.2 Graphing Rational Functions 7.3 Multiplying and Dividing Rational Expressions
Week 11 (29) Mar 22- Mar 26	Tuesday Major Final Exams half day Wednesday Major Final Exams half day Thurs - Fri Easter Break (Spring Break) ~ Public Holiday
March 25 to April 2 Easter & Spring Break	



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Fourth Quarter Tentative Course Content

Week & Date	Topics / Projects / Assessments
Week 1 (30) Apr 5 - Apr 9	7.4 Adding and Subtracting Rational Expressions 7.5 Solving Rational Equations 8.1 Sample Spaces and Probability Monday Tomb Sweeping Day ~ Public Holiday Tuesday Children's Day ~ Public Holiday
Week 2 (31) Apr 12 - Apr 16	8.2 Two-Way Tables and Probability 7.4-8.2 Review 7.4-8.2 Review 7.4-8.2 Test 10.1 Right Triangle Trigonometry
Week 3 (32) Apr 19 - Apr 23	10.1 Right Triangle Trigonometry 10.2 Angles and Radian Measure 10.3 Trigonometric Functions of Any Angle 10.1-10.3 Review 19 - 23 AP Mock Exams
Week 4 (33) Apr 26 - Apr 30	10.1-10.3 Review 10.1-10.3 Test 10.4 Graphing Sine and Cosine Functions 10.4 Graphing Sine and Cosine Functions T-W-Th Pre-Exam Days Friday Labor Day ~ Public Holiday
Week 5 (34) May 3 - May 7	10.5 Graphing Other Trigonometric Functions 10.5 Graphing Other Trigonometric Functions 10.4-10.5 Review 10.4-10.5 Review 10.4-10.5 Test 3 - 7 Final Exams (K, Gr. 5, 8, & 12 Only) 3 - 14 AP Exams
Week 6 (35) May 10 - May 14	10.7 Using Trigonometric Identities 10.8 Using Sum and Difference Formulas 3 - 14 AP Exams Wednesday Major Final Exams Undergraduates half day Thursday Major Final Exams Undergraduates half day Friday Record Day ~ Student Holiday



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Week 7 (36) May 17 - May 21	Monday Gr. 12 Recollection (Morning) Monday Baccalaureate Mass (Afternoon, Schoolwide) Wednesday House Sports Day Thursday High School Field Trip Friday House Culminating Activity All Week Student Clearance Days & Special Events
Week 8 (37) May 24 - May 28	Monday Middle & High School Sports Day Monday LS Field Trip Tuesday Kindergarten Graduation/Gr. 5 Promotion Wednesday Gr. 8 Graduation and Gr. 12 Graduation Thursday Pre-Kindergarten & Gr. 1 - 4, 6 & 7, 9-11 Recognition Friday Last Day of School for Students

"Kindling the Light of Faith, Hope, and Love: The Legacy of St. Dominic de Guzmán"