Integrated Modern Algebra CP Course Compendium

UNITS OF STUDY*

Unit 1- *Expressions, Equations, and Function Families*
Unit 2- *Linear Functions*
Unit 3- *Quadratic Functions*
Unit 4- *Systems*
Unit 5- *Exponents & Exponential Functions*
Unit 6- *Rational Functions*
Unit 7- *Trigonometry*
Unit 8- *Data and Trends*

INTEGRATED MODERN ALGEBRA Credits: 5 Grades: 10, 11, 12

The curriculum for Integrated Modern Algebra is based on the belief that mastery in learning takes place over an extended period of time. When a skill or concept is introduced and practiced, students develop familiarity with it. The intent of this course is to enable students to move toward independent learning within the context of review and extension of these skills with introduction to topics essential for further study of mathematics. Emphasis is placed on reinforcement of fundamental skills and concepts. As this course follows Algebra 1 and Plane Geometry, students who successfully complete this course will meet the NJDOE three-year mathematics graduation requirement. Students who successfully complete and wish to continue to pursue mathematics at Wall High School can enroll in Algebra 2 CP as a senior. As this is a non-required precursor for Algebra 2 CP, students who have successfully completed Algebra 2 CP are not eligible to take this course.

INTERDISCIPLINARY CONNECTIONS

NJSLS Companion Standards Grades 9-12 (Reading & Writing in Science & Technical Subjects)

RST.9-10.7. Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.
RST.11-12.1. Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
RST.11-12.3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
RST.11-12.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

21st Century Life and Careers

CRP2. Apply appropriate academic and technical skills.
CRP4. Communicate clearly and effectively and with reason.

**See individual units for Pacing Guide, NJSLS Standards, Transfer Skills, Enduring Understandings, Essential Questions, Learning Objectives, Key Vocabulary, Skills, Resources, & Assessments*

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP11. Use technology to enhance productivity.
9.3.ST.5 Demonstrate an understanding of the breadth of career opportunities and means to those opportunities in each of the Science, Technology, Engineering & Mathematics Career Pathways.
9.3.ST.6 Demonstrate technical skills needed in a chosen STEM field.
9.3.ST-SM.4 Apply critical thinking skills to review information, explain statistical analysis, and to translate, interpret and summarize research and statistical data.

Technology

8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.
8.1.12.A.CS1 Understand and use technology systems.
8.1.12.A.CS2 Select and use applications effectively and productively.

E. Computational Thinking: Programming: Computational thinking builds and enhances problem solving, allowing students to move beyond using knowledge to creating knowledge.

MODIFICATIONS / ACCOMMODATIONS

GENERAL CONSIDERATIONS FOR DIVERSE LEARNERS		
English Language Learners	**Students Receiving Special Education Services**	**Advanced Learners**
- Personal glossary - Text-to-speech - Extended time - Simplified / verbal instructions - Frequent breaks WIDA Can Do Descriptors for Grade 9-12 WIDA Essential Actions Handbook FABRIC Paradigm Wall Township ESL Grading Protocol Use WIDA Can Do Descriptors in coordination with Student Language Portraits (SLPs).	- Small group/One to one - Additional time - Review of directions - Student restates information - Space for movement or breaks - Extra visual and verbal cues and prompts - Preferential seating - Follow a routine/schedule - Rest breaks - Verbal and visual cues regarding directions and staying on task - Checklists - Immediate feedback Students receiving Special Education programming have specific goals and objectives, as well as accommodations and modifications outlined within their Individualized Education Plans (IEP) due to an identified disability and/or diagnosis. In addition to exposure to the general education curriculum, the instruction is differentiated based upon the student's needs. The IEP acts as a	- Use of high level academic vocabulary/texts - Problem-based learning - Pre-assess to condense curriculum - Interest-based research - Authentic problem-solving - Homogeneous grouping opportunities Knowledge and Skill Standards in Gifted Education for All Teachers Pre-K-Grade 12 Gifted Programming Standards Gifted Programming Glossary of Terms

**See individual units for Pacing Guide, NJSLS Standards, Transfer Skills, Enduring Understandings, Essential Questions, Learning Objectives, Key Vocabulary, Skills, Resources, & Assessments*

	supplemental curriculum guide inclusive of instructional strategies that support each learner. Considerations for Special Education Students 6-12 National Center on Universal Design for Learning - About UDL UDL Checklist UDL Key Terms	**Students with 504 Plan** Teachers are responsible for implementing designated services and strategies identified on a student's 504 Plan.

At Risk Learners / Differentiation Strategies

Alternative Assessments Choice Boards Group Investigations Leveled Rubrics Multiple Texts Personal Agendas Homogeneous Grouping Online Math Practice	Multiple Intelligence Options Varied Supplemental Activities Tiered Activities/Assignments Choice of Activities Mini-Workshops to Reteach or Extend Think-Pair-Share by readiness Use of Collaboration of Various Activities	Think-Tac-Toe Exploration by Interest Flexible Grouping Goal-Setting with Students Homework Options Open-Ended Activities Stations/Centers Work Alone/Together

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