



Course Title: Survey of Mathematics

Content Area: Mathematics

Grade Level: 11-12

Scope and Sequence

Grade Level: 11-12			Content Area: Math			
Unit or Topic	Standards	Length of Time	Key Content	Assessment Tools	Scaffolding Strategies (Interventions, Special Education)	Resources & Materials
Reasoning and Problem Solving	CC.2.1.HS.F.3	3 weeks	-Identify inductive and deductive reasoning -Formulate conjectures -State the difference between conjectures and theorems -Formulate problem solving strategies	In class exams, homework sets, group projects, computer algebra system	Students are allowed to make test corrections. Assessments will be modified in line with IEP's.	All content is gathered from various online or hard-copy courses. Posted in Google Classroom.
Set Theory	CC.2.2.HS.C.1	3 weeks	-Use set builder notation -Subsets -Venn diagrams -Counting problems	In class exams, homework sets, group projects, computer algebra system	Students are allowed to make test corrections. Assessments will be modified in line with IEP's. Calculators.	All content is gathered from various online or hard-copy courses. Posted in Google Classroom.
Logic	CC.2.2.HS.D.10	3 weeks	-Identify well-defined statements and write negations -Compound statements and logic notation -Truth tables Equivalency of compound statements -Valid and invalid arguments	In class exams, homework sets, group projects, computer algebra system	Students are allowed to make test corrections. Assessments will be modified in line with IEP's. Calculators.	All content is gathered from various online or hard-copy courses. Posted in Google Classroom.



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			-Euler diagrams			
Number Theory (Counting Numbers)	CC.2.2.4.A.2 CC.2.1.HS.F.2	3 weeks	-Identify counting numbers -Identify Prime or composite numbers -Factor composite numbers -Identify theorems and conjectures -LCM's and GCF's -Fibonacci Sequence -Examples of Fibonacci numbers and the Golden Ratio	In class exams, homework sets, group projects, computer algebra system	Students are allowed to make test corrections. Assessments will be modified in line with IEP's. Calculators.	All content is gathered from various online or hard-copy courses. Posted in Google Classroom.
The Real Number System	CC.2.1.HS.F.1 CC.2.1.HS.F.2	2 weeks	-Identify and classify real numbers -Simplify numerical expressions -Rational and irrational numbers -Fractions to decimals and vice-versa -Decimals and percent	In class exams, homework sets, group projects, computer algebra system	Students are allowed to make test corrections. Assessments will be modified in line with IEP's. Calculators.	All content is gathered from various online or hard-copy courses. Posted in Google Classroom.
Consumer Math	15.6.8.J	3 weeks	-Compound interest Total interest and monthly payments -Unearned interest -Monthly payments and mortgages	In class exams, homework sets, group projects, computer algebra system	Students are allowed to make test corrections. Assessments will be modified in line with IEP's. Calculators.	All content is gathered from various online or hard-copy courses. Posted in Google Classroom.



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			-Pros and cons of investments			
Management Science	CC.2.2.8.B.3	2 weeks	-Euler circuits -Hamiltonian circuits -Minimum cost spanning trees -Task schedule problems -Linear programming	In class exams, homework sets, group projects, computer algebra system	Students are allowed to make test corrections. Assessments will be modified in line with IEP's. Calculators.	All content is gathered from various online or hard-copy courses. Posted in Google Classroom.
Probability and Statistics	CC.2.4.HS.B.1 CC.2.4.HS.B.2 CC.2.4.HS.B.3 CC.2.4.HS.B.4 CC.2.4.HS.B.5 CC.2.4.HS.B.6 CC.2.4.HS.B.7	4 weeks	-Sampling methods -Evaluate Distribution -Probability -Random phenomenon -Normal distributions and the central limit theorem -Population proportion and confidence intervals	In class exams, homework sets, group projects, computer algebra system	Students are allowed to make test corrections. Assessments will be modified in line with IEP's. Calculators.	All content is gathered from various online or hard-copy courses. Posted in Google Classroom.
Social Choice and Decision Making	CC.2.4.7.B.1 5.3.3.E	2 weeks	-Outcomes of elections -Voting paradox -Weighted voting systems -Fair division -Hamilton Method -Game Theory	In class exams, homework sets, group projects, computer algebra system	Students are allowed to make test corrections. Assessments will be modified in line with IEP's.	All content is gathered from various online or hard-copy courses. Posted in Google Classroom.