

## District Scope and Sequence

Subject: Mathematics

Course: 351 IMP I

Grade Level: 9 – 12

Concepts	Topics/Units	Content/Skills	Essential activities/Agreements
			Honors option within heterogeneously grouped class; Common assessments and POWs Portfolio
Understanding theoretical probability and applying to everyday situations;	The Game of Pig	<ul style="list-style-type: none"> <li>• Area models</li> <li>• Tree diagrams</li> <li>• Theoretical vs. experimental probabilities</li> <li>• Constructing frequency bar graphs</li> </ul>	Planning and carrying out simulations
Understanding linear relationships using graphs, data tables and equations	The Overland Trail	<ul style="list-style-type: none"> <li>• Using variables and algebraic expressions to represent concrete situations, generalize results, describe functions</li> <li>• Relating graphs to their equations, with emphasis on linear relationships</li> <li>• Solving pairs of linear equations by graphing</li> <li>• Using different representations of functions—symbolic, graphical, situational, and numerical—and understanding the connections between these representations</li> </ul>	
Understanding normal distribution and standard deviation to determine whether a change in one variable affects another variable.	The Pit and the Pendulum	<ul style="list-style-type: none"> <li>• Fitting equations to data, both with and without graphing calculators</li> <li>• Function notation</li> <li>• Normal distribution</li> <li>• Calculating Mean and Standard deviation</li> <li>• Quadratic equations w/ TI 83</li> <li>• Curve fitting</li> </ul>	Experiments w/ pendulums
Understanding similar polygons, proportional relationships and right triangle trigonometry as applied to applications in the real world	Shadows	<ul style="list-style-type: none"> <li>• Angles, Polygons and Parallel lines</li> <li>• Similarity and Congruence</li> <li>• Solving right triangles w/ right triangle trigonometry</li> </ul>	Flashlight/shadow experiments
			Common Final Exam