

# Independent Study in Mathematics

Adopted 2012

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**(c) Knowledge and skills: mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:** [ISM.9-12.1](#)

- (1) apply mathematics to problems arising in everyday life, society, and the workplace; [ISM.9-12.1.1](#)
- (2) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution; [ISM.9-12.1.2](#)
- (3) select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems; [ISM.9-12.1.3](#)
- (4) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate; [ISM.9-12.1.4](#)
- (5) create and use representations to organize, record, and communicate mathematical ideas; [ISM.9-12.1.5](#)
- (6) analyze mathematical relationships to connect and communicate mathematical ideas; and [ISM.9-12.1.6](#)
- (7) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication. [ISM.9-12.1.7](#)