

MASC - INTEGRATED MATH & SCI (MASC)

MASC 320 Inquiries in Physical Science

Credits 3. 3 Lecture Hours. Integration and connections among topics in physical sciences—matter, energy, force, motion, scientific cycles; focuses on inquiry emphasizing experimental design, data analysis and collection, and use of models in the physical sciences. **Prerequisites:** BIOL 111, BIOL 113 and BIOL 123, CHEM 106 and CHEM 116, GEOL 101 or GEOG 203, ASTR 101 and ASTR 102, and PHYS 205; junior or senior classification; admission to teacher certification.

MASC 351 Problem Solving in Mathematics

Credits 3. 3 Lecture Hours. Problem solving strategies in math and science; evaluate conjectures and arguments; writing and collaborating on problem solutions; posing problems and conjectures; constructing knowledge from data; developing relationships from empirical evidence; connecting mathematics concepts; readings, discussions, and analyses will model and illustrate mathematics problems solving and proofs.

Prerequisite: Junior or senior classification.

MASC 420 Inquiries in Life and Earth Sciences

Credits 3. 3 Lecture Hours. Integration and connections among topics in the life and earth sciences—diversity, natural selection, ecosystem development, earth's features, and weather systems; inquiry emphasizing experimental design, data analysis and collection; use of models in the life and earth sciences. **Prerequisites:** BIOL 111 or BIOL 113 and BIOL 123, CHEM 106 and CHEM 116, GEOL 101 or GEOG 203, ASTR 101 and ASTR 102, and PHYS 205; junior or senior classification; admission to teacher certification.

MASC 450 Integrated Mathematics

Credits 3. 3 Lecture Hours. Integration and connections among topics and ideas in mathematics and other disciplines; connections between algebra and geometry and statistics and probability; focus for integration with authentic problems requiring various branches of mathematics. **Prerequisite:** Admission to teacher education; junior or senior classification.