

# COCONINO COMMUNITY COLLEGE

## COURSE OUTLINE

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Effective Term: Fall 2020

Date: January 22, 2019  
Date: January 24, 2020

### A. **Identification:**

1. Subject Area: Teaching Science and Math (TSM)
2. Course: 101
3. Course Title: STEP 1: Inquiry Approaches to Teaching Mathematics and Science
4. Credit Hrs: 1
5. Catalog Description: This is a lab-based course for prospective secondary math/science teachers where students are introduced to the teaching profession through observations and teaching science or mathematics lessons in the K-12 setting. One lecture. Letter grade only.

### B. **Course Goals:**

To prepare students for university secondary education programs in science or mathematics through the exploration of the teaching profession via observations and teaching science or math lessons in elementary classrooms. Under the guidance of a Master Teacher and working in a team, students will observe an elementary classroom and be supported in the planning and teaching of multiple inquiry-based science or math lessons in grades 3-6.

### C. **Course Outcomes:** Students will be able to:

1. Define and identify inquiry using specific examples of inquiry modeled in classroom instruction.
2. Design, teach, and reflect upon inquiry-based lessons.
3. Write objectives, essential questions, and formative assessments for each lesson.
4. Develop and utilize probing questions to determine students' acquisition of knowledge.
5. Apply strategies that promote instructional equity.
6. Demonstrate basic proficiency in the use of technology.
7. Implement safe classroom practices.
8. Demonstrate classroom management strategies that assist in classroom instruction.
9. Reflect on instructional practices and impact on student learning.
10. Implement lesson openers and closures for each lesson.

### D: **Course Outcomes Assessment** will include:

Lesson plans, teaching evaluations, teaching reflections, and observation reflections.

### E. **Course Content:**

Will include:

1. Course Technology Tools
  - a. Shared documents
  - b. Microsoft Office Suite
2. Inquiry
  - a. How students learn
  - b. Probing Questions
  - c. Active Engagement
3. Lesson Design
  - a. Objectives
  - b. Essential questions
  - c. Classroom management
  - d. Openers/Closers
  - e. Instructional Strategies
  - f. Organizational structures
4. Equity
  - a. Teacher's moves
  - b. Equitable instruction
  - c. Special needs
5. Reflective Practice