COCONINO COMMUNITY COLLEGE
COURSE OUTLINE

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A. Identification:
1. Course Subject: Biology (BIO)
2. Course Number: 103
3. Course Title: STEM Readiness
4. Credit Hours: 1
5. Course Description: In this course, students will learn how to effectively engage in the disciplines of science, technology, engineering and mathematics (STEM)., This course will introduce the foundations of STEM, lab environment readiness and safety, and will provide an understanding of how to integrate mathematical and scientific research practices. Students will be introduced to and become familiar with lab terminology and learn about the various STEM careers.

B. Course Goals: Instruction will include the development of critical thinking, information literacy, reasoning and argumentation. This course will increase a student's familiarity with lab terminology, tools, and safety as well as the use of the scientific method.

C. Course Outcomes:
Upon completion of this course, students will be able to:
1. Apply STEM learning strategies.
2. Gain STEM self-awareness and STEM field pathways.
2. Identify general lab science equipment and its function.
3. Identify basic laboratory safety.
4. Utilize basic STEM terminology.
5. Research varying STEM career opportunities and internships.
6. Identify the different types of STEM scientific literature.
7. Disseminate scientific findings verbally and through writing.
8. Develop a resume and scientific interview skills.

D. Course Outcomes Assessment will include:
1. quizzes/exams
2. Laboratory Safety Training certificate of successful completion
3. Resume/C.V. creation and submission

E. Course Content will include:
1. Time management and organizational strategies.
2. Lab Safety: Training provides an overview of **basic laboratory safe** practices and an introduction to common chemical, biological, and physical hazard.
3. Scientific design: How to create and ask a scientific question, create a scientific study and present scientific findings.

4. STEM Career Assessment: What kind of Engineer, Scientist, or Technology Professional should I be?
5. Increasing and sustaining student engagement in STEM.
6. Professional Development module including: a working resume/C.V. for the STEM workforce, STEM discipline presentation skills, STEM presentation formats.
7. How to engage in STEM self-assessment inventories and self-reflection practices.
8. The different types of STEM literature resources.