COLLEGE OF THE MARSHALL ISLANDS  
COURSE OUTLINE

CIP No. 13.1206

EDU 251 Science for Teachers
Alpha Number

Course Description
Surveys topics in Biology and Environmental Science that are found in the RMI science curriculum. Provides students with a hands-on approach to motivate elementary science students as they investigate the world around them. Emphasizes the need for content knowledge coupled with engaging activities for the effective elementary science teaching. Topics will be presented through an inquiry-based teaching strategy and will model how to create a student-centered, activity-based classroom.

Course prepared by:  Education/Science Department  March 2004

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<th>Hours per Week</th>
<th>Number of Weeks</th>
<th>Total Hours</th>
<th>Credits</th>
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<td>Clinical</td>
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<td>Seminar</td>
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Purpose of Course:
Degree Requirement   X
Degree Elective
General Education
Certification
Developmental
Other

Prerequisite(s)  
Education major
C or better in ENG 102

Signature, Curriculum Committee Chairperson  
Date

Signature, Dean of Academic Affairs  
Date

Signature, Vice President of Academic and Student Affairs  
Date

Last Date reviewed or revised: November 2013
I. **Science for Teachers**

Course Title

II. **Course Objectives**

A. **General Outcomes**

Students will:
1. Explore a variety of strategies and techniques that promote effective science instruction (EDU 1, 3, 6)
2. Understand the use of scientific measurement to analyze information and solve problems (EDU 4, 5)
3. Display knowledge of the RMI elementary science curriculum, content, and scope and sequence (EDU 1, 2, 3)
4. Investigate science methods that develop elementary students’ critical thinking skills (EDU 5)

B. **Student Learning Outcomes**

Upon completion of this course, the student will be able to:
1. Use a variety of resources including children’s literature to develop investigative activities that motivate students’ discovery of science concepts and information.
2. Accurately use standard laboratory tools, including microscopes and metric tools for recording volume, mass, length, and temperature; make observations, manipulate materials, collect data, and draw conclusions related to both lab work and research.
3. Plan and demonstrate appropriate grade level inquiry-based science activities
4. Develop a collection of reference materials, etc. for use in the elementary classroom.

III. **Course Content**

Students will be provided with an introduction to major topics from the fields of biology and environmental science and hands-on investigative activities.

1. Cellular biology
2. Taxonomy
3. Metric system
4. Chemistry
5. Environmental science

IV. **Methods of Instruction**

1. Small group activities
2. Supervised practice
3. Manipulation of materials
4. Laboratory exercises
5. Field trips
6. Lecture with demonstrations
V. Equipment and Materials

1. Science laboratory
2. Overhead/LCD projectors

VI. Suggested Methods of Evaluation

1. Laboratories
2. Assignments
3. Reports
4. Projects
5. Quizzes
6. Lab examinations
7. Oral presentations

Letter grades will be assigned per CMI Grading System