CMI COURSE CURRICULUM

COURSE ACTION

Course Title: Science for Teachers **Alpha Number:** EDU 251 **CIP No.** 13.1206

Type of Action:

_____ New Course (attach narrative justification for course creation)

_____ Substantive Revision (attach narrative justification for changes, including assessment and/or achievement data and feedback from the advisory committee if relevant)

Select all that apply:

_____ Change in number of credit hours
_____ Change in prerequisite
_____ Substantive change in course content
_____ Change to SLOs
_____ Other:

X Non-substantive Revision

Select all that apply:

_____ Change in Alpha Number or Title (unless letter abbreviation has not previously been used)
_____ Edit to course description that does not alter the substance of the course
_____ Change to recommended texts
X Other:-change in contact hours from 94 to 90

_____ Reinstitution of Archived Course (attach narrative justification for reinstitution, including evidence of demand, evidence of capacity, feedback from the advisory committee if relevant, and commentary that speaks directly to the reasons the course was initially archived).

_____ Reaffirmation of Course (only allowable if course completion rate exceeds ISS, the benchmark has been met for the majority of SLO assessments, and there is no evidence of inequitable levels of achievement across subpopulations; attach evidence)

Approvals:

	Name	Signature	Date
Department Chair	Rosie Koroi	DocuSigned by: Rosie Koroi 59252531F4FC4A3...	7/28/2024
Curriculum Committee Chair	Desmond Doulatram	DocuSigned by: 8A4E9FDD06E14D5...	7/28/2024
Dean	Vasemaca Savu	DocuSigned by: A656D7CD46154E6...	7/31/2024
VPASA	Dr. Elizabeth Switaj		

CMI COURSE OUTLINE

CIP No. 13.1206 **Version No.** 3

EDU 251 — **Alpha Number**

Science for Teachers — **Course Title**

Course Description: Surveys topics in science that are found in the RMI Public Schools System curriculum. Provides students with a hands-on approach to motivate elementary students as they investigate the world around them. Emphasizes the need for content knowledge coupled with engaging activities for effective teaching through inquiry-based strategies that model a student-centered, activity-based classroom.

Course originally prepared by:	Education Department	Education	March/2004
Most recent revision by:	Peter Roberts	Education	June/ 2024

Course mode(s): X Face to Face (including Zoom) ____ Hybrid
____ Distance Education

Credits calculated by: X Credit Hour ____ Clock Hour ____

Contact Hours: 90

Type	No. of Hours	No. of Credits	Maximum No. of Hours Online
Lecture/Seminar/Workshop	45	3	
Clinical			
Practicum			
Lab	45	1	
Fieldwork			
Studio Time			
Total	90	4	

Purpose(s) of Course:

Degree Requirement	**ASEE**
Degree Elective	
General Education	
Credit Certification	
Developmental	
CTE/TVET	
ABE/Adult HS	

Distribution Area: Humanities
Social Sciences
Mathematics (Credit)
Science

Prerequisite: Admission to ASEE C or better in ENG 111

Student Learning Outcomes: Upon completion of this course, students 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.

SLO Mapping:

Prerequisite Course SLO	**Linked SLO from this Course**	**Explanation**
1. Demonstrate use of the writing process. 2. Write essays that have appropriate content, organization, and formatting 4. Produce essays that are relatively free of mechanical and technical errors.	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.	Students need to be able to write at a level appropriate for professional educators when writing their lab reports or documenting other observations.
3. Use basic library and research skills to find and read a variety of college levels sources, respond critically (verbally and in writing), and draw connections between a variety of perspectives.	1. Use a variety of resources including children's literature to develop investigative activities that motivate students' discovery of science concepts and information. 4. Develop a collection of reference materials, etc., for use in the elementary classroom.	Appropriate, grade-level resources are one of the most important aspects teachers need in the elementary classroom. Students need to develop research skills that will enable them to effectively acquire resources for classroom use.

Links to Program Learning Outcomes:

SLO	Linked PLO	I/P/M	Explanation of Link
1.	4. Apply appropriate classroom teaching and management methods to promote a positive learning environment.	I	Teachers need to be able to identify and effectively use science related children's literature to enrich students' understanding of science concepts.
2.	5. Develop and promote elementary students' critical thinking skills through reading and writing to develop a community of readers and writers.	P	Teachers need to be able to provide hands-on experiences for students using available resources and equipment in order to help elementary students develop critical thinking and problem solving skills.
3.	1. Display knowledge of school curriculum, emphasis on RMI.	P	Students learn to plan, develop, and demonstrate lessons based on the RMI Curriculum that include inquiry-based science activities.
4.	3. Practice self-reflection and professionalism in the classroom	P	Teachers need to be able to improve the quality of the activities that they provide in the classroom by practicing self-reflection and developing a collection of reference materials that suit the needs of the students.

Course Content: Students in this course will understand:

1. Scientific Method
2. Life Science
3. Earth Science
4. Physical Science
5. Environmental Science
6. Metric System
7. Pedagogy
8. Learning Plans

Higher Order Thinking Skills: Students in this course will experience

x Analyzing the basic elements of an idea, experience, or theory

x Making judgments about the value or soundness of information, arguments, or methods

x Applying theories or concepts to practical problems or in new situations

Recommended Methods of Instruction

- **X** Demonstration
- **X** Lecture
- **X** Small group discussion
- **X** Class discussion
- **X** Audio-Visual Aids
- **X** Laboratory
- Supervised Practice
- **X** Field Trips
- **X** Other: Field Observation and practice; journal reflections

	Assigned Readings
	Field research (Interview with schools' principal or administrator
	Group Project
	Observations
	Presentations
	Small and large group discussions
	Case studies and critique
	Movie Critique
	Learning Games
	Assigned Readings

Recommended Assessment Tool Type(s):

- Case Study
- Critique of Performance
- **X** Exam/Quiz In-Course
- Exam/Quiz Standardized (attach narrative describing development and validation process)
- Focus Group
- **X** Group Project
- **X** Individual Project
- Observation
- Portfolio Review
- **X** Presentation
- Simulation
- **X** Skill Performance
- Supervisor Evaluation
- Survey
- **X** Written Assignment

Required Forms of Regular and Substantive Interaction for Hybrid or Distance Education Courses (Select at Least Two):

Direct instruction through:

- Live video lectures
- Live audio-only lectures
- Live text chats
- Assessing or providing feedback on a student's coursework

Providing information or responding to questions about the content of a course or competency through:

- Live video discussions
- Live audio-only discussions
- Live text chats
- Asynchronous message boards or text chats

Facilitating a group discussion regarding the content of a course or competency through:

_____ Live audio-only discussions
_____ Live text chats
_____ Asynchronous message boards or text chats
Other, specify:

Note: for distance education courses, if only two are selected, both must occur within the course on a weekly basis. If more than two are selected, the instructor may choose which two are used during each week.

Equipment and Materials:

1. Recommended texts:

   Koch, Janice. *Science Stories: Science Methods for Elementary and Middle School Teachers, Loose-Leaf Version*, 6th ed. Wadsworth Publishing, 2018. ISBN: 9781305960749

2. Equipment/Facilities:
   Science laboratory, Projector

3. Materials and Supplies:
   Laboratory equipment, popsicle sticks, straws, circuit materials, timers

College Mission
The College of the Marshall Islands will provide our community with access to quality, higher and further educational services, prioritize student success through engagement in relevant Academic, Career and Technical Education, and be a center for the study of Marshallese Culture. It will also provide intellectual resources and facilitate research specific to the needs of the nation.
BoR approved 1st December, 2020

Connection to the College Mission
This course provides learning experiences that are relevant and meaningful which students can apply when they teach their students in the future; this is in support of the mission to provide access to quality education through relevant and engaging activities. In addition, this course will also help future teachers use better and more effective approaches that should contribute to students building a foundation for improving their understanding of concepts relating to science.

Department Mission
The mission of the College of the Marshall Islands Education Department is to prepare knowledgeable, resourceful teachers capable of creating classroom environments in which students engage in meaningful learning experiences that build a foundation for lifelong learning.
Approved by BoR August 22, 2018

Connection to Department Mission
Science for Teachers prepares experienced and pre-service teachers with classroom experiences based on quality pedagogy to develop them to become knowledgeable and resourceful teachers. By engaging in meaningful learning, students become familiar with and develop resources that provide foundations throughout the elementary curricula as a basis for lifelong learning.

CC approved June 14, 2024