

COLLEGE OF THE MARSHALL ISLANDS  
**COURSE OUTLINE**

**CIP No. 13.1003**  
**DEAF 441**  
**Alpha Number**

**Content Methods I in Deaf Education:**  
**Science and Mathematics**  
**Course Title**

**Course Description**

Reviews foundations for standards-based curriculum development and applications for teaching deaf students. Presents advanced evidence-based instructional practices for assessment, planning, implementation, and evaluation of student learning related to mathematics and science. Course assignments will be based, in part, on practicum experiences.

**Course prepared by:** Education/NSSP November 2016

	Hours per Week	Number of Weeks	Total Hours	Credits
Lecture	<u>12</u>	<u>4</u>	<u>48</u>	<u>3</u>
Laboratory	_____	_____	_____	_____
Clinical	_____	_____	_____	_____
Seminar	_____	_____	_____	_____
Field	_____	_____	_____	_____

Total Credit Hours 3

The Hours per Week and Number of Weeks listed above assume that this course will only be taught during the Summer semester. The Total Hours would remain the same if taught during a different term.

Purpose of Course:

Degree Requirement	_____
Degree Elective	_____
General Education	_____
Credit Certification	<u>X</u>
Developmental	_____
Community Education	_____
Vocational Education	_____
Adult Basic Education	_____

Distribution Area:

Humanities	_____
Social Sciences	_____
Mathematics (Credit)	_____
Science	_____

Prerequisites Completion of DEAF 331, DEAF 332 with a B or better, bilingual fluency (ASL/English)  
 Co-requisites DEAF 442

\_\_\_\_\_  
 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: May 15, 2017

**CIP No. 13.1003**

**I. Content Methods II in Deaf Education:  
Science and Mathematics  
Course Title**

**DEAF 441  
Alpha Number**

**II. Course Outcomes**

**A. General Learning Outcomes**

The student will:

1. Investigate and interpret research and professional literature related to curriculum and instructional methods in content areas including science and mathematics (ASCDE 1, 6)
2. Identify and assess best practices in content instruction and assessment in science and mathematics for deaf students, including print English and sign language. (ASCDE 2, 3, 5 6)
3. Select and demonstrate effective bilingual strategies and materials (including technology) for developing knowledge and skills based on national curriculum standards in science and mathematics (ASCDE 2, 3, 4, 5, 6)
4. Utilize a variety of resources to build and enhance deaf students' science and mathematics concept and content knowledge and skills (ASCDE 2, 3, 4, 5, 6)
5. Create a collection of bilingual samples in sign and print to use in content instruction and assessment related to science and mathematics (ASCDE 5, 6)

**B. Student Learning Outcomes**

Upon completion of this course, the student will be able to:

1. Prepare key concept papers using theory and research related to the content instruction of science and mathematics and applications for instructing deaf students.
2. Assess models of content instructional strategies and materials in science and mathematics, including those developed for instructing deaf students
3. Design lessons, activities, and materials to demonstrate application of content methods in science and mathematics, including use of technology.
4. Using accessible local, regional and other available resources, translate science and mathematics curriculum into meaningful learning experiences for deaf students.
5. Integrate critical thinking, inquiry, communication, and literacy development in science and mathematics lessons.

**III. Course Content**

Provide students with knowledge and methods for effective teaching of science and mathematics to deaf students.

1. Development and integration of critical thinking, problem solving, inquiry and reasoning in science and mathematics instruction
2. Advanced instructional design for teaching deaf students science and mathematics
3. Curriculum standards and design for instruction in science and mathematics
4. Learning objectives, learning experiences, and assessment applying scope and sequence of science and mathematics
5. Resources for scientific and mathematical models and manipulatives, including technology
6. Best practices in teaching mathematics and science

7. Creation and sharing of units and lessons in mathematics and science

#### **IV. Methods of Instruction**

1. Lecture and discussion
2. Viewing of content relevant and accessible videos
3. Practice in Deaf Education classes
4. Group projects and presentations
5. Library and internet research

#### **V. Equipment and Materials**

1. LCD projector with connections that work for MacBook (Apple)
2. Internet access to academic database
3. Library access
4. Videos demonstrating bilingual instructional strategies in mathematics and science

#### **VI. Suggested Methods of Evaluation**

1. Participation
2. ASL/English translations of mathematics word problems and scientific experiments
3. Observation reports
4. Lesson plan critiques
5. Demonstration lessons
6. Teaching competency checklist

Letter grades will be assigned per CMI Grading System.