Northern Marianas College
CURRICULUM ACTION REQUEST

Effective Semester / Session: Fall 2018

Type of Action

	New
X	**Modification**
	Cancellation

Course Alpha and Number: NR 253 (Previously BI 253)

Course Title: Species & Ecosystem Management

Reason for initiating, modifying, or canceling;
The course guide is being modified for periodic updates.

Dr. Alfredo B. De Torres — 3-28-19

Proposer — Date

Dr. Alfredo B. De Torres — 3-28-19

Department Chair — Date

Adam Walsh — 05.20.19

Language & Format Review Specialist — Date

Ajani Burrell — 4/5/19

Academic Council Chair — Date

Charlotte Cepeda — 6/11/19

Dean, Learning and Student Success — Date

1. **Department**
   Natural Resource Management

2. **Purpose**
   NR 253 is the third core course in the Natural Resource Management, Associate in Science degree. Natural Resource Management is an interdisciplinary program that emphasizes a theoretical and applied approach to agricultural, environmental, and natural resource production, assessment, classification, problem or phenomena mitigation, policy, and related conservation issues. This degree provides academic training and on-the-job experience with a student focus on utilization, conservation, and protection of our land, sea, water, and air.

3. **Description**

   A. **Required/Recommended Textbook(s) and Related Materials**
   Required:
   Meffee, G. K., et.al. Ecosystem Management: Adaptive Community-Based Management. Washington D.C. Island Press, 2002.

   Readability Level: Grade 12.

   Conservation Biology/Course readings: scientific/technical reports and journal articles, including handouts on specific topics will also be assigned and/or distributed.

   Recommended:
   Furey John (Ed.), Island Ecology & Resource Management. Saipan MP: Northern Marianas College Press, 2006.

   Readability Level: Grade 10.

   B. **Contact Hours**
      1. **Lecture:** 3 per week / 45 per semester
      2. **Lab:** 3 per week / 45 per semester
      3. **Other:** N/A

   C. **Credits**
      1. **Number:** 4
      2. **Type:** Regular degree credits

D. Catalogue Course Description
NR 253 examines the species and ecosystems of coral reefs, forests, savannas, and wetlands. Topics include relationships between organisms, their environment; endangered species and the wise use of resources. Global and regional aspects are stressed; three hours of lecture with field works/laboratory/ field trips required. Prerequisite: NR153. English Placement Level: EN101. Math Placement Level: MA132

E. Degree or Certificate Requirements Met by Course
This Course fulfills the requirements for AS degree in Natural Resource Management. This also serves as an elective course for other program majors.

F. Course Activities and Design
This course incorporates lectures, guest speakers, audiovisual presentations, student oral reports and presentations, take-home and web-based assignments, laboratory exercises, field trips, periodic quizzes, tests, a class project, and comprehensive final exam.

4. Course Prerequisite(s); Concurrent Course Enrollment
Prerequisites: NR153 with a grade of C or better
Concurrent Course Enrollment: N/A

Required English/Mathematics Proficiency Level(s)
English Placement Level: EN101
Mathematics Placement Level: MA132

5. Estimated Cost of Course; Instructional Resources Needed
Cost to the Student: Tuition for a 4-credit course, cost of textbook, and instructional materials fee.

Cost to the College: Instructor's salary.

Instructional resources needed for this course include classroom and laboratory space, chalkboard/white board and supplies, TV/VCR, videotaped programs, digital camera, video flex camera attachment for microscopes, stereo and compound microscopes, microscope slides and cover slips, multimedia projector, basic laboratory and field supplies.

6. Method of Evaluation
Student progress will be evaluated on the basis of class participation, oral presentations, assignments, laboratory/field trip reports, quizzes, tests, a class project, and comprehensive final exam. NMC's grading and attendance policies will be followed.

7. Course Outline

This is a topical outline and does not necessarily indicate the sequence in which the material will be presented.

1.0 Environmental Geology
- 1.1 Volcanism
- 1.2 Weathering and erosion
- 1.3 Faulting
- 1.4 Aquifers and caves

2.0 Coral Reef Ecology
- 2.1 Species
- 2.2 Monitoring
- 2.3 Management

3.0 Wildlife/Vegetations Species
- 3.1 Forest
- 3.2 Savanna
- 3.3 Wetlands
- 3.4 Monitoring
- 3.5 Management

4.0 Fishery Ecology
- 4.1 Species
- 4.2 Monitoring
- 4.3 Management

8. Instructional Goals

The course will introduce students to:

1.0 The knowledge and understanding of environmental geology;

2.0 The organisms that comprise and live in the habitat of coral reefs;

3.0 The organisms that comprise the habitats of forests, savannas, and wetlands; and

4.0 Fishery ecology

9. Student Learning Outcomes

Upon successful completion of this course, students will be able to:

1.0 Demonstrate knowledge and understanding of environmental geology;

2.0 Identify and discuss the organisms that comprise and live in the habitat of coral reefs;

3.0 Identify and discuss the interactions of organisms that comprise the habitats of forests, savannas, and wetlands; and

4.0 Explain and discuss fishery ecology.

10. Assessment Measures of Student Learning Outcomes

Assessment of student learning may include, but not be limited to, the following:

1.0 Tests;

2.0 Field Investigations or Lab Reports;

3.0 Class Participation;

4.0 Assignments;

5.0 Research Project;

6.0 Presentations; and

5.0 Comprehensive Final Exam