# Northern Marianas College CURRICULUM ACTION REQUEST

Effective Semester / Session: Spring 2006

Type of Action: New Modification Cancellation Course Alpha and Number: PE 133 Course Title: Beginning SCUBA Diving Reason for initiating, revising, or canceling: This course guide is being modified to reflect the changes in the course outline, the book, the certification, the departmental name and for the required 3 year course guide update. Proposer Department Chair English and Format Reviewer Academic Council Chair Date 11/3/07 Dean of Academic Programs and Services Date

## Northern Marianas College Course Guide

course: PE 133 Beginning Scuba Diving

### 1. Department

**Human Performance and Athletics** 

### 2. Purpose

This course provides a class in which students can become certified as a SCUBA openwater diver. Emphasis is on the fundamentals of SCUBA diving.

### 3. Description

## A. Required/Recommended Textbook(s) and Related Materials Required:

PADI: Learn to Scuba Dive today (Student Manual), International PADI, Inc. Revised 11/04

Readability level: Elementary Level

### **B.** Contact Hours

Lecture: 3 hours per week / 20 per semester
Lab: 4 hours per week / 25 per semester

3. Other:

#### C. Credits

**1. Number:** 3

2. Type: Regular Degree Credits

### D. Catalogue Course Description

This course introduces students to the theory, methods, and applications of the major field of SCUBA recreational diving. It incorporates instructional materials from the National Association of Underwater Instructors (NAUI) USA, and covers the knowledge and skills a SCUBA diver needs to participate in skin and SCUBA diving. On successful completion of this course students are considered competent to engage in openwater activities approximating those in which they were trained. English Placement Level: EN 073/074.

### E. Degree or Certificate Requirements Met by Course

A passing grade in this course fulfills the physical education requirement under the General Education requirements for a Liberal Arts Degree. Successful completion will also result in the student being certified as a PADI Open Water Diver.

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### F. Course Activities and Design

Course activities include labs, lectures, group discussions, homework assignments, and viewing and discussion of videotapes/slide presentations. The lab activity consists of participating in actual dives at various off-campus locations. Student presentations, quizzes, examinations, and evaluations will be part of the course. A water skills test and final examination are required. Students are required to participate fully in class discussions and labs. Students will also be required to demonstrate hands-on skills in SCUBA skills and techniques.

## 4. Course Prerequisite(s); Concurrent Course Enrollment; Required English/Mathematics Placement Level(s)

Prerequisites: Must be able to successfully complete a 10 minute survival float and either a 200 yard swim (any stroke) or a 300 yard snorkel swim.

Concurrent Course Enrollment: None

English Placement Level: 073/074 or by permission of the instructor

### 5. Estimated Cost of Course; Instructional Resources Needed

Cost to the Student: Tuition for a 3 credit course, instructional materials fee, SCUBA diving lab fee and the cost of a student manual.

Cost to the College: Instructor's salary, SCUBA diving equipment and compressed air

Instructional resources needed for this course include: white board and white board markers, TV/VCR and videotaped materials, slide projector and slides, slide projector screen, overhead projector and transparency film.

### 6. Method of Evaluation

Students' grades will be based on the regular letter grade system as described below:

A: Excellent – grade points: 4.0;

B: Above average – grade points: 3.0;

C: Average – grade points: 2.0;

D: Below average—grade points: 1.0;

F. Failure – grade points: 0.0.

NMC's grading and attendance policies will be followed.

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### 7. Course Outline

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

- 1.0 Physics and Physiology
  - 1.1 Physics as related to diving
  - 1.2 Physiology as related to diving
  - 1.3 Medical aspects as related to diving
  - 1.4 Buoyancy
  - 1.5 Heat loss in water
  - 1.6 Air consumption
  - 1.7 Solubility of gases
- 2.0 Diving Equipment
  - 2.1 Purpose
  - 2.2 Features
  - 2.3 Types used
  - 2.4 Masks, fins, and snorkel
  - 2.5 SCUBA tanks
  - 2.6 Protective clothing
  - 2.7 Weighting systems
  - 2.8 Diving instruments
  - 2.9 Miscellaneous equipment
- 3.0 Diving Environment
  - 3.1 The varying environment
  - 3.2 Tides
  - 3.3 Currents
  - 3.4 Potential environmental hazards
  - 3.5 Potential hazards in openwater training
- 4.0 Dive Safety
  - 4.1 Dive planning
  - 4.2 Communication
  - 4.3 Diving nuisances
  - 4.4 Self-care and buddy assists

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- 5.0 Confined and Openwater Skills
  - 5.1 Swimming skills, no equipment
  - 5.2 Survival float
  - 5.3 Pre-dive equipment handling skills
  - 5.4 In-water skills
  - 5.5 Entry and exit techniques
  - 5.6 Surface buoyancy checks
  - 5.7 Surface hand signals
  - 5.8 SCUBA skills
  - 5.9 Air consumption calculations
  - 5.10 Underwater compass navigation

### 8. Instructional Goals

This course will introduce students to:

- 1.0 The history, knowledge and skills of Skin and SCUBA diving;
- 2.0 The principles and processes of Skin and SCUBA diving;
- 3.0 How to select, care for and operate SCUBA equipment;
- 4.0 How buoyancy changes with depth and lung volume and how to select proper weights to avoid negative buoyancy while at a certain depth;
- 5.0 How to equalize pressure in the ears and mask when descending and ascending and the necessity for doing so;
- 6.0 The potential dangers associated with hyperventilation and prolonged breath holding;
- 7.0 Open water diving skills;
- 8.0 The differences between water pressure and air pressure on the diver;
- 9.0 The differences between air embolism and decompression sickness;
- 10.0 In-water self-care and buddy assists;
- 11.0 Additional aquatic skills; and
- 12.0 SCUBA diving rescue methods.

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### 9. Student Learning Outcomes

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

- 1.0 Explain the history and skills needed for Skin and SCUBA diving;
- 2.0 Describe the principle and processes of Skin and SCUBA diving:
- 3.0 Explain how to select and care for SCUBA equipment;
- 4.0 Describe how buoyancy changes with depth and lung volume and how to select proper weights to avoid negative buoyancy while at certain depths;
- 5.0 Demonstrate how to equalize pressure in the ears and mask when descending and ascending and explain the necessity for doing so;
- 6.0 Explain the potential dangers associated with hyperventilation and prolonged breath holding;
- 7.0 Demonstrate mastery of openwater SCUBA diving skills;
- 8.0 Explain the differences between water pressure and air pressure on the diver;
- 9.0 Explain differences of air embolism and decompression sickness;
- 10.0 Demonstrate in water self care and buddy assists;
- 11.0 Develop additional aquatic skills; and
- 12.0 Demonstrate SCUBA diving rescue methods.

#### 10. Method of Evaluation

Assessment of students learning may include the following:

Students will be evaluated on the basis of class participation, attendance, periodic take home quizzes, in-class quizzes and a final exam. Students will also be evaluated on mastery of basis SCUBA diving skills. The Open Water certifications are based on completion of PADI knowledge reviews, quizzes, final examination, demonstrated mastery of basic SCUBA diving skills and completion of the required in water work. NMC's grading and attendance policies will be followed.