Maui Community College Course Outline

1.	Alpha and Number	Oceanography 140 OCN 140
	Course Title	Open Water Scuba Certification
	Credits	2
	Date of Outline	February 2005
2.	Course Description	Covers the full spectrum of diving activities. Discusses equipment and its maintenance, dive physiology, and physics, safety procedures, dive planning, dive tables, and environmental conditions. Teaches skills for safe diving by means of classroom lectures, and open-water sessions. Students successfully completing the course receive internationally recognized Open Water SCUBA certification card. Credit/non credit only
3.	Contact Hours/Type	2 lecture/ lab
4.	Prerequisites Corequisites Recommended Preparation	

Received March 2004
Under Amnesty Program
SLOs Updated & Linked To Content
COWIQ Grid Prepared

G (2002)	COVIG Grid Prepared		
Approved by		Date	

5. General Course Objectives

To provide students with the opportunity to learn a lifelong skill in a safe and nurturing setting. To teach students about the marine environment and to promote awareness about the underwater world and its relationship to our local environment. To provide an academic learning environment for students pursuing a career in marine-related disciplines, or those needing access to the underwater environment for proposed or future research projects,

6. Student Learning Outcomes

For assessment purposes, these are linked to #7. Recommended Course Content.

On successful completion of this course, students will be able to

- a. explain the role and maintenance of all essential SCUBA equipment
- b. demonstrate proper set up of SCUBA gear
- c. demonstrate skills for safe diving including buddy skills
- d. practice proper buoyancy control
- e. explain the effects of compressed gasses and pressure on various parts of the body
- f. explain proper techniques to avoid physiological diving related problems.
- g. Demonstrate proper use of dive tables to plan depth, time and repetitive dives
- h. list and describe environmental conditions such as waves and currents that are important to safety in SCUBA diving
- i. Explain ways divers can help to preserve the diving environment
- j. pass certification exams from internationally recognized SCUBA association
- 7. Recommended Course Content and Approximate Time Spent on Each Topic Linked to #6. Student Learning Outcomes.

The course is divided into lecture and open-water sessions. Students will learn and apply concepts taught in the lectures in the ocean environment.

Lectures:

1 session Introduction to SCUBA, dive equipment and maintenance (a,b)

1 session Dive physics and physiology (e,f,g)

1 session Dive tables and computers (f,g)

1 session Diving safety (c,d,f,h)

1 session The diving environment (h,i)

Open water skills:

1 session Swimming and skin diving skills, site orientation and assessment

methods (c,h,i)

6 sessions Gearing up (b)

Equipment and buddy checks (b,c)

Entries and exits (c.h)

Snorkel/ regulator exchanges (c)

Buoyancy control (d)

Hand signals (c)

BC inflation techniques (d)

Mask and regulator clearing and recovery techniques (c)

Monitoring of SPG (c,g)

Rescue techniques (surface and underwater) (c)

Controlled descents and ascents (c,d,e,f,i)

Underwater navigation (natural aids and compass) (c)

Air sharing techniques and ascents (c)

Equipment removal and replacement (surface and underwater) (c)

Air consumption monitoring (c,g)

Underwater touring methods and the buddy system (c)

Dive planning, safety, and emergency procedures (g)

8. Text and Materials, Reference Materials, Auxiliary Materials and Content

Textbook from certifying agency, diving tables and logbook. There are numerous other textbooks available including the University of Hawai'i Diving Safety Manual and several diving journals and periodicals for student use. Books on Hawaiian marine life are available at the Marine Option Program office.

9. Recommended Course Requirements and Evaluation

Students must learn, demonstrate, and perform all water skills at a satisfactory level in order to be certified. In addition, students must pass a standardized written exam in order to receive certification. Students receive a grade of credit/no credit only in the course, but receive an internationally recognized certification card attesting to their skill level after successfully completing the course.

10. Methods of Instruction

Lectures, discussion and visual aids are used in this course. The students also will do one skin dive and six open-water ocean dives to learn and practice required skills for certification under the direct and close supervision of the instructor. Students will complete assignments from their workbooks, and must demonstrate proficiency in all required water skills in order to be certified.

Assessment of Intended Student Learning Outcomes Standards

: :				0		•	(*	5	Ć		
	_	OCN	OCN	OCN	OCN							
Ctandard A Miller Carrier in the	64	101	140	191 _V	293		_					
Standard 1 - Written Communication												
Outcome 1.1 - Use writing to discover and articulate ideas.	_	2	0	N	2							
Outcome 1.2 - identify and analyze the audience and purpose for any intended communication.	0	2	0	2	2							
Outcome 1.3 - Choose language, style, and organization appropriate to particular purposes and audiences.	0	2	0	Ν	N							
sources appropriately.	0	3	0	З	ပ							
hypothesis, or other appropriate statement.	0	ω	0	ω	ω							
concisely with appropriate content.	0	2	0	N	N							
0.000.47												
conventions of writing, including grammar, spelling, and mechanics.	0	2	0	N	N							
Outroma 4 8 Domanatata a casti												
editing.	0	ယ	0	N	N		···					
Outrome 1.9 Devolor a paragraft rain in												
communication.												
											-	

Standard 2 - Quantitative Reasoning						
•	OCN	OCN	OCN	OCN OCN OCN OCN	OCN	
	64	101	140	191v 293	293	
Outcome 2.1 - Apply numeric, graphic, and symbolic skills and other forms of quantitative reasoning accurately and appropriately.	0	1	2	2	N	
Outcome 2.2 - Demonstrate mastery of mathematical concepts, skills, and applications, using technology when appropriate.	0	0	0	0	0	
Outcome 2.3 - Communicate clearly and concisely the methods and results of quantitative problem solving.	0	0	0	0	0	
Outcome 2.4 - Formulate and test hypotheses using numerical experimentation.	0	0	0	>	1	
Outcome 2.5 - Define quantitative issues and problems, gather relevant information, analyze that information, and present results.	0	0	0	2	2	
Outcome 2.6 - Assess the validity of statistical conclusions.	0	0	0	2	2	

Standard 3 - Information Retrieval and Technology

I GUII GUGY								
	OCN	OCN	OCN	OCN OCN OCN OCN OCN	OCN			
	64	101	140	140 191v 293	293		_	
Outcome 3.1 - Use print and electronic information							_	
technology ethically and responsibly.	0	N	0	2	2			
Outcome 3.2 - Demonstrate knowledge of basic vocabulary, concepts, and operations of information								
retrieval and technology.	0			>	->			
Outcome 3.3 - Recognize, identify, and define an information need.	0	2	0	2	2			
Outcome 3.4 - Access and retrieve information through print and electronic media, evaluating the accuracy and authenticity of that information.	_	2	· \	2	2			
Outcome 3.5 - Create, manage, organize, and communicate information through electronic media.	0	0	0	0	0			
Outcome 3.6 - Recognize changing technologies and make informed choices about their appropriateness and use.		2	0	2	2			
							-	

Standard 4 - Oral Communication						
	OCN	OCN	NOO NOO NOO	OCN	OCN	
	64	101	140	140 191v	293	
Outcome 4.1 - Identify and analyze the audience and	,	,	Č			
purpose of any intended communication.	c	2	c]-	_	
Outcome 4.2 - Gather, evaluate, select, and organize						
information for the communication.	0	2	0	2	N	
appropriate to the audience and occasion.	0	2	0	_	_	
Outcome 4.4 - Speak clearly and confidently, using the voice, volume, tone, and articulation appropriate to the	>)	>	L	k	
auutilive alia ovvasioli.	0	N	c	-	-	
Outcome 4.5 - Summarize, analyze, and evaluate oral	>	•)))	
communications and ask coherent questions as needed.	0	o	0	0	0	
Outcome 4.6 - Use competent oral expression to initiate and sustain discussions.	0		0	-		
		ſ		ŀ	·	

Standard 5 - Critical Thinking						
	S S	8	OCN OCN OCN OCN	0 <u>0</u>	OCN	
	64	101	140	191v	293	
Outcome 5.1 - Identify and state problems, issues, arguments, and questions contained in a body of information.	0	ယ	ပ	2	2	
A MANAGEMENT OF THE STATE OF TH						
Outcome 5.2 - Identify and analyze assumptions and underlying points of view relating to an issue or problem.	0		_	1	>	
Outcome 5.3 - Formulate research questions that require descriptive and explanatory analyses.	0	3	0	3	3	
Outcome 5.4 - Recognize and understand multiple modes of inquiry, including investigative methods based on observation and analysis.	0	ω	0	3	3	
Outcome 5.5 - Evaluate a problem, distinguishing between relevant and irrelevant facts, opinions, assumptions, issues, values, and biases through the use of appropriate evidence.	0	N	0	ဒ	ယ	
Outcome 5.6 - Apply problem-solving techniques and skills, including the rules of logic and logical sequence.	0	2	2	2	2	
Outcome 5.7 - Synthesize inform from various sources, drawing appropriate conclusions.	0	2	_	2	2	
Outcome 5.8 - Communicate clearly and concisely the methods and results of logical reasonong.	0	N	0	2	2	
Outcome 5.9 - Reflect upon and evaluate their thought processes, value system, and world views in comparison to those of others.	0	o	0	0	0	