1. Type of Action
   - A. Addition  □ Regular or □ Experimental or  □ Other (click and type to specify)
   - B. Deletion
   - C. Modification:
     □ in credits  □ in title  □ in number or alpha
     □ in prerequisites or co-requisites  □ Other (click to specify)

2. New Alpha, Number and Title  OCN 260 Pacific Surf Science and Technology  3. Credits 3 credits

4. Old Alpha, Number and Title  IS197 Introduction to Surf Science, Culture, and Technology  5. Credits 3 credits

6. New Catalog Description
   Pacific Surf Science and Technology is a lecture-based, Internet-intensive course that showcases scientific and industry aspects of the surfing world for surfers and non-surfers alike. The course takes a scientific approach to understanding the natural processes that create and influence waves and surf conditions, while also introducing many ocean safety concepts relating to the environment and the popularity of ocean recreation. A weather and surf journal along with weekly campus field excursions dedicated to studying weather phenomena adds an essential experiential component to the course.

8. Student Contact Hours Per Week
   - Lecture 3
   - Lecture/Lab
   - Lab
   - Other (click to specify)

9. Proposed Date of First Offering
   - Semester  Spring
   - Year  2006

10. This course □ is proposed for the Liberal Arts Program □ Program.  □ can fulfill AA Elective  If Other, specify

11. This course Makes No Difference in the number of credits required for the program/core.

12. Equivalent or similar courses offered in the UH System:

<table>
<thead>
<tr>
<th>Campus</th>
<th>Alpha, Number, Title</th>
<th>Campus</th>
<th>Alpha, Number, Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH Hilo</td>
<td>none</td>
<td>KapiolaniCC</td>
<td>none</td>
</tr>
<tr>
<td>UH Manoa</td>
<td>none</td>
<td>KauaiCC</td>
<td>none</td>
</tr>
<tr>
<td>West Oahu</td>
<td>none</td>
<td>LeewardCC</td>
<td>none</td>
</tr>
<tr>
<td>HawaiiCC</td>
<td>none</td>
<td>MauiCC</td>
<td>none</td>
</tr>
<tr>
<td>HonoluluCC</td>
<td>none</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. This course is (check one and click in appropriate textbox and provide details):
   - □ Already articulated with
   - □ Appropriate for Articulation with
   - □ Not yet appropriate for Articulation.

   Provide details of existing or desired articulation (date, college(s), purposes, pre-major, etc.) in this space:

14. Reason for Initiating, Modifying or Deleting Courses or Other Pertinent Comment:
   Originally an experimental course, requesting modification into a permanent course in order to provide a natural science course for students interested in understanding meteorological and oceanographic concepts relating to surf production and forecasting in Hawaii, technological developments relating to surfboard design and production, and to gain a basic understanding of the surfing, ocean recreation, and ocean safety industries in Hawaii. This course may qualify for the Academic Subject Certificate in Hawaiian Studies.

Requested by: Joseph E. Ciotti  Date: 9-14-05
Approved by: Sean Shubiga  Date: 10/25/05
Phillip R. Hargrove  Date: 11/1/2005
Dean of Instruction  Date: 11/1/05
University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course

Provost

Date

Angela Meixell

1/02/05

CCCM #6100 (Amended for WCC use October 2002)
University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course

Levels of Review of Course Proposal at Windward Community College

Course Alpha, Number, and Title: OCN 260 Pacific Surf Science and Technology

Signatures

1. Department Area (more than one departmental instructor's signature required)

2. Department

Was this course discussed in a department meeting? ☐ Yes ☐ No

3. Division

4. Curriculum Committee Review

Approved ☑

Disapproved ☐

Reason:

Dates

2/17/05

2/17/05

2/17/05

9/14/05

October 25, 2005

Curriculum Committee Chairperson

CCC#6100 (Amended for WCC use October 2002)
1. How is this course related to the education needs and goals of the College/Department/Community as reflected in the EDP/ADP?

   This course meets the needs of interested students by educating them about natural processes affecting weather and surf in Hawaii and by providing them with practical knowledge about the ocean environment and ocean industries in Hawaii.

2. Provide details of any additional staff, equipment, facilities, library/media material, faculty preparation and other financial support that would be required to implement this course. (Include an estimate of the actual cost of supplies and equipment.) What has been done to provide for these additional costs for the proposed date of offering? Who will teach the course?

   $\underline{\text{Yes, additional staff, equipment, or costs. \hspace{1cm} \text{Jan Masterson will teach the course.}}}$

3. Is a similar course taught elsewhere in the UH system? No If yes, provide details of how this course differs from existing similar courses.

   No

4. Is this course experimental and/or unique to Windward Community College? No If yes, provide rationale and details of its impact on the College Curriculum

   No

5. Is a similar course taught in the upper division level by a 4-year UH college? No If yes, explain why this course is appropriate at the lower division or how it differs from its upper division counterpart.

   No

6. Please attach a complete course outline. Your course outline should address all the items listed in the Guidelines for Course Outlines.

7. If this course is numbered 100 or above or appropriate for transfer to a 4-year college, complete and attach WCC Form for Transfer Courses (blue). See criteria for transfer courses.
University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course
Course Modification Form – Go to next page for Articulation Form

WCC Form for Course Modifications

Course OCN 260
Submitted by Ian Masterson
Date September 14, 2005

1. What change is proposed in the course? Provide specific information comparing both the "new" and "old" course.

Change old alpha, number and title from IS197 Introduction to Surf Science, Culture, and Technology to OCN 260 Pacific Surf Science and Technology

2. What is the rationale for the change?

course converting from an experimental status.

3. Is the change substantive enough to require a change in course identification? If so, explain thoroughly.

Yes; no longer experimental so this designation must change; OCN appropriate due to oceanographic course

4. Is the course articulated with any 4-year program? No

If yes, give details of the agreement(s) and explain any impact the proposed modifications may have on articulation.

5. Provide details of any additional staff, equipment, facilities, library/media material, faculty preparation and other financial considerations that would be required to implement this course modification. What has been done to provide for these additional costs? Who will teach the course? Is additional preparation needed?

No additional equipment or costs; will be taught by Ian Masterson; no additional prep required

6. Will this course modification result in any alterations in the number of hours required to attain a certificate or degree? No

If yes, provide details and justification for these alterations.

7. If the course is renumbered to 100 or above, does it meet the criteria for transfer level courses? (Go to next page for transfer course criteria.) Yes
University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course
Articulation with 4-year UH Campus Form

WCC Form for Transfer Courses
(To be completed for articulation with any 4-year UH campus)
(This sheet was originally blue.)

Course Alpha and Number OCN 260

Submitted by Ian A. Masterson

Date September 14, 2005

1. List the counterpart to this course on any 4-year UH campus. Describe the relationship between the course and any related baccalaureate program area.

None

2. Is this course taught or accepted by major accredited colleges or universities? Give one or two examples.

Yes. Hawaii Pacific University offers this course as a Marine Science course. Plymouth University in England and Edith Cowan University in Australia offer similar courses in Surf Science and Technology.

3. Please attach a complete course outline if you have not done so already. Your course outline should address all the items listed in the Guidelines for Course Outlines.
ORIGINATING CAMPUS: Windward Community College        DATE SUBMITTED: September 14, 2005

COURSE ALPHA & NUMBER: OCN 260        SEMESTER CREDITS: 3

COURSE TITLE: Pacific Surf Science and Technology

DATE OF OUTLINE: September 14, 2005         Year 2005

(** Representative outline, no multiple syllabi, please.)

1. Articulation committee to review this course:

   Standing Committees
   Written Communication
   Mathematical & Logical Thinking
   World Civilizations
   Languages
   Arts & Humanities
   Natural Science
   Social Science

2. The information in this item is required by the reviewing committee so that it has a starting point for reviewing the course. It is the responsibility of the submitting campus to do the necessary research to provide this information.

In the opinion of the originating campus, this course is equivalent to the following and/or meets the criteria for the indicated core categories. Every core category space, except your own campus, must be filled in (can include ‘none’). An equivalent course, if known, may be helpful to committee members but is not required.

<table>
<thead>
<tr>
<th>Receiving Campus</th>
<th>Equivalent Course (Alpha and Number)</th>
<th>Core Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH Hilo</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>UH Manoa</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>UH West Oahu</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Hawaii CC</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Honolulu CC</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Kapiolani CC</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Kauai CC</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Leeward CC</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Maui CC</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Windward CC</td>
<td>none</td>
<td></td>
</tr>
</tbody>
</table>

3. If submitted electronically, I understand that this outline will be posted to a publicly accessible web site to enable open access for reviewing committees and campuses. The outline will be taken off the site upon completion of the review.

Typed Name or Signature

Note: If possible submit coversheet and course outline electronically as e-mail attachments (preferably in ‘pdf’ format). If submitting in printed form, 20 copies of coversheet and course outline are required for distribution for appropriate review.

Note: UCA Clearinghouse
John Muth, Office of the Chancellor for Community Colleges, is acting as staff to the University Council on Articulation and is responsible for tracking all courses submitted for articulation.
University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course
Articulation with 4-year UH Campus Form

COMMITTEE LEVEL:

1. When the committee has completed its review of a course, the "ARTICULATION RECOMMENDATION FORM" (revised 1/18/2001) should be filled in and attached to the outline. The committee chair should also sign the form.

2. If the committee choice is "accept," indicate receiving campus core area. If the committee choice is "not recommended," a reason must be provided. Outlines with missing or incomplete recommendation forms will be returned to the committee.

If a committee requires updated or more complete outlines, such requests should be made through the UCA Clearinghouse so that the new outline material can be tracked and placed in the file. If a committee requires more general supporting information, this should be requested through the course's supporting campus representative on the committee.

3. All committee recommendations should be sent to the UCA Clearinghouse for recordation and dissemination to the campuses. DO NOT SEND THE RECOMMENDATIONS DIRECTLY TO ANY CAMPUS.

RECEIVING CAMPUS:

1. Courses will be sent to each campus for consideration after they come out of committee. Each campus has its own internal process for the approval of courses for its general education core.

2. In all cases where a campus accepts a course into its general education core, it must also indicate which area or part of its core the course fits.

3. In all cases where a campus does not accept a course for articulation, it must supply a reason (even it is "we agree with the committee").

4. When campus actions are completed, these actions should be conveyed back to the UCA Clearinghouse for recordation and publication.

5. The Community College Policy on Acceptance of UCA Reviewed Courses is as follows:

   (a) All Community Colleges agree to accept positive UCA committee recommendations for core, including core categories assigned by the committee.

   (b) All Community Colleges agree to accept the UCA committee judgment of not-Recommended (nR) without further review.

   (c) This policy is retroactive to the time the current articulation effort started.

   (d) The Community Colleges reserve the right to review and modify core category assignments as necessary to insure appropriate categorization and to realign such assignments if changes are made to the campus core structure. Such modifications shall not interfere with the timely publication of the student transfer handbook.

Note: UCA Clearinghouse

John Muth, Office of the Chancellor for Community Colleges, is acting as staff to the University Council on Articulation and is responsible for tracking all courses submitted for articulation.
Old Course

Course Alpha & Number:

Title:

Revised Course

Course Alpha & Number:

Title:

Semester and Year when the revised course was/will be first offered:

Reason for the change in Alpha/Number/and/or Title:

Note: A current outline of the course must be submitted with this form.  Undated outlines are not acceptable.

I certify that this course has had its alpha, number, and/or title changed, but that it is substantially the same course as the course that was reviewed and approved for articulation.

Campus: Windward Community College

Certifying Authority (Typed Name or Signature and Title)

Date:

SUBMIT TO: UCA Clearinghouse, Attn: John Muth
Chancellor's Office for CC, 2327 Dole Street

Revised 1/19/01
Pacific Surf Science

Instructor: 
Course Alpha: OCN 260 
Course Title: Pacific Surf Science and Technology
Credit Hours: 3 credit hours

CATALOG DESCRIPTION:
Pacific Surf Science and Technology is a lecture-based, Internet-intensive course that showcases scientific and industry aspects of the surfing world for surfers and non-surfers alike. The course takes a scientific approach to understanding the natural processes that create and influence waves and surf conditions, while also introducing many ocean safety concepts relating to the environment and the popularity of ocean recreation. A weather and surf journal along with weekly campus field excursions dedicated to studying weather phenomena adds an essential experiential component to the course.

RECOMMENDED TEXTS:

PRE-REQUISITES:
NONE

INSTRUCTOR INFORMATION:
Name:
E-mail:
Cell Phone:

COURSE GOALS:
Upon completion of this course, the student should:

➢ have an understanding of the basic principles of meteorology, oceanography; and geology as they apply to the creation and shaping of waves and surf;
➢ be able to predict surf conditions using Internet web sites and local weather station reports;
➢ have an understanding of past and present surfboard technology and production;
➢ have a basic understanding of the principles of design, production, and retail marketing within surfing related industries;
➢ have had exposure to various multimedia applications related to surfing;
➢ have knowledge of water safety issues related to surfing; and
➢ have an understanding of the basic techniques of surfing.

STUDENT LEARNING OUTCOMES:
Upon completion of this course, the student will:

➢ demonstrate an understanding and basic knowledge of:
  ♦ the principles of meteorology, oceanography, and geology as they apply to the creation and shaping of waves and surf, and
Pacific Surf Science

- basic water safety techniques;
- locate and utilize Internet web sites to retrieve surf forecasting data;
- compile logs of weather and surf observations to use in future forecasts;
- list the various specifications required when designing a custom surfboard and follow the surfboard production techniques.

MODE OF INSTRUCTION:
The previously described objectives will be achieved through the aid of the following learning activities:

- Assigned readings
- Homework Assignments
- Daily Weather Journal
- Class Lectures, Videos, and Demonstrations
- Internet Resources
- Group Discussions

The material presented in all modes of instruction will be of an introductory nature but sufficient in content to allow serious study by the interested student. Active participation in class discussions about readings, homework, lectures and videos will benefit the student and is worth 10 points towards the student’s final grade (see Method of Grading listed below).

EVALUATION OF OBJECTIVE ACHIEVEMENT:
HOMEWORK ASSIGNMENTS. Four homework activities (10 points each) consisting of short essays or specific tasks will be assigned (see syllabus). Assignments received after their respective due dates will be subject to penalty point deductions.

JOURNAL. The student will develop and maintain a written journal in which daily weather and surf forecasts are logged (50 points). This journal will be submitted at the last day of the course. The instructor may inspect these journals anytime throughout the course.

GROUP PROJECT. The student will conduct a group project on some aspect of the surfing world of interest to the students and/or as suggested in the classroom (50 points). Details regarding this project will be presented in class.

EXAMINATIONS. The student will take one mid-term examination and one final examination (50 points each) to demonstrate understanding of information presented during lectures, assigned readings, class discussions, videos, and homework assignments.

METHOD OF GRADING:
The assignment of points will be according to the following protocol:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework Assignments (4 @ 10 points each)</td>
<td>40</td>
</tr>
<tr>
<td>Journal</td>
<td>50</td>
</tr>
<tr>
<td>Group Project</td>
<td>50</td>
</tr>
<tr>
<td>Mid-Term Examination</td>
<td>50</td>
</tr>
<tr>
<td>Final Examination</td>
<td>50</td>
</tr>
<tr>
<td>Participation</td>
<td>10</td>
</tr>
<tr>
<td>Total Points:</td>
<td>250</td>
</tr>
</tbody>
</table>
Each letter grade with its respective level of achievement is as follows:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% - 100% of cumulative points possible</td>
</tr>
<tr>
<td>B</td>
<td>80% - 89% of cumulative points possible</td>
</tr>
<tr>
<td>C</td>
<td>70% - 79% of cumulative points possible</td>
</tr>
<tr>
<td>D</td>
<td>60% - 69% of cumulative points possible</td>
</tr>
<tr>
<td>F</td>
<td>below 60% of cumulative points possible</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete: This temporary grade is given at the instructor’s option when a student has failed to complete a small part of a course because of circumstances beyond the student’s control. All required work must be completed by the last day of instruction of the succeeding semester.</td>
</tr>
<tr>
<td>CR*</td>
<td>Achievement of objectives at the C level or higher.</td>
</tr>
<tr>
<td>NC*</td>
<td>Achievement of objectives at less than a C level.</td>
</tr>
<tr>
<td>N</td>
<td>Used at the option of the instructor to denote below passing work not deserving of credit.</td>
</tr>
</tbody>
</table>

*The Cr/NC option must be declared by the end of the 10th week of classes. Written consent of the instructor is required for this option.*

A student can determine his/her current grade at any time during the course by dividing his/her cumulative points by the cumulative points possible, converting this value into a percentage, and referring to the table of letter grades described above.

Success in this course will be enhanced by:

1. Demonstrating a positive, inquiring attitude toward all learning.
2. Setting aside adequate time for studying and working on problems.
3. Taking notes and reading the assigned literature.
4. Seeking the assistance of the instructor(s) as needed.
5. Attending all class sessions and responsibly completing all assignments and/or changes to the course syllabus.
6. Keeping abreast with or ahead of the syllabus.
7. Participating in all class discussions.

OTHER INFORMATION

A student can determine his/her current grade at any time during the course by dividing his/her cumulative points by the cumulative points possible, converting this value into a percentage, and referring to the table of letter grades described above.

Any student wishing to be informed of his/her semester grade in advance of the official mailing of report cards should make such a request by E-mailing the instructor.
Pacific Surf Science

COURSE SYLLABUS:

WEEK #1
Day 1  Introduction to Course
Review Course Outline, Goals, Objectives, and Grading Policies
Student Introductions
Assigned Reading:  Surf Science Chapters 1-2

Day 2  Basic Meteorology: What Causes Weather?
Daily Journal Descriptions and booklets
Campus Weather Walk--Journal Entries Begin

WEEK #2
Day 3  Basic Meteorology: Reading a Weather Chart
Hawaii Weather Today Introduction
Assigned Reading:  Surf Science Chapters 3-4

Day 4  Wave Generation
Internet Surf Check & Journal Entries
Campus Weather Walk
Assignment:  Homework#1

WEEK #3
Day 5  Group Project Discussion Time
Project Description and Group Brainstorm
**Project Assignment:** Develop a written proposal for the Group Project
Assigned Reading:  Surf Science Chapter 5

Day 6  Wave Propagation
Internet Surf Check & Journal Entries
Campus Weather Walk
Assigned Reading:  Surf Science Chapter 6

WEEK #4
Day 7  Refraction
Assigned Reading:  Surf Science Chapter 7

Day 8  Breaking Waves
Internet Surf Check & Journal Entries
Campus Weather Walk
Assignment:  Homework#2

WEEK #5
Day 9  Group Project Discussion Time
**Project Assignment:** Complete outline for Group Project
Assigned Reading:  Surf Science Chapter 8

Day 10  Coastal Sediment Transport
WEEK #6
Day 11  Storm Surf
Assignment: Review Chapters 1-9

Day 12  Midterm Review
Internet Surf Check & Journal Entries
Campus Weather Walk
Assignment: Study for Midterm exam

WEEK #7
Day 13  Midterm Exam
Assigned Reading: Surf Science Chapters 10-11

Day 14  Winds and Water Temperature
Internet Surf Check & Journal Entries
Campus Weather Walk
Assigned Reading: Surf Science Chapter 12

WEEK #8
Day 15  Tides
Assigned Reading: Surf Science Chapter 13

Day 16  World Wave Climate
Internet Surf Check & Journal Entries
Campus Weather Walk
Assignment: Homework#3

WEEK #9
Day 17  Group Project Discussion Time
Project Assignment: Complete Rough Draft and Presentation for Group Project
Assigned Reading: Surf Science Chapter 14

Day 18  Wave Forecasting
Internet Surf Check & Journal Entries
Campus Weather Walk
Assigned Reading: Essential Surfing pp. 1-69

WEEK #10
Day 19  The History of Surfboard Construction and Technology
Assignment: Homework#4

Day 20  Movie: Shapemakers (traditional and new school approaches to board shaping)
Internet Surf Check & Journal Entries
Pacific Surf Science

Campus Weather Walk
Assigned Reading: Essential Surfing pp. 79-81 & 164-199

WEEK #11
Day 21 Future Trends in Surfboard Production Techniques
Assigned Reading: handouts

Day 22 Risk Management Techniques and Beach Assessments
Internet Surf Check & Journal Entries
Campus Weather Walk

WEEK #12
Day 23 Group Project Discussion Time
Assignment: Project Final Paper Due at Group Project Presentation Time

Day 24 Final Exam Review
Weather Journals due at the beginning of class

WEEK #13
Day 25 Group Project Presentations

Day 26 Group Project Presentations

WEEK #14
Final Exam TBA

SEE YOU IN THE SURF!