### Proposal to Initiate, Modify or Delete a Course

**1. Type of Action**
- **A. Addition**
  - Regular [X]  
  - Experimental [ ]  
  - Other [ ]
  
- **B. Deletion**
  - [ ]

- **C. Modification**
  - [ ] in credits  
  - [ ] in title  
  - [ ] in number or alpha  
  - [ ] in prerequisites  
  - Other [ ]

**2. New Alpha, Number and Title**

<table>
<thead>
<tr>
<th>IS 160A: Polynesian Voyaging and Seamanship</th>
</tr>
</thead>
</table>

**3. Credits** 3

**4. Old Alpha, Number and Title**

**5. Credits**

**6. New Catalog Description**

SEE ATTACHED SHEET.

**7. Prerequisites**

<table>
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<th>None</th>
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**8. Student Contact Hours Per Week**

| Lecture | 3 |
| Lecture/Lab | [ ] |
| Lab | [ ] |
| Other (specify) | [ ] |

**9. Proposed Date of First Offering**

<table>
<thead>
<tr>
<th>Fall 1999</th>
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</table>

**10. This Course**

- [ ] IS REQUIRED  
- [X] IS AN ELECTIVE FOR THE WCC PROGRAM/CORE
- [X] CAN FULFILL Natural Science Group 3 OR Arts & Humanities Group 2 REQUIREMENT

**11. This Course**

- [ ] INCREASES  
- [ ] DECREASES  
- [X] MAKES NO CHANGE IN NUMBER OF CREDITS REQUIRED FOR THE PROGRAM/CORE

**12. Similar Courses Offered Else Where**

<table>
<thead>
<tr>
<th>Colleges:</th>
<th>Alpha, Number, Title:</th>
</tr>
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</table>

None

**13. This Course Is**

- [ ] ALREADY ARTICULATED with [ ]  
- [ ] APPROPRIATE FOR ARTICULATION with [ ]  
- [X] NOT YET APPROPRIATE FOR ARTICULATION with [ ]

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

**14. Reason for Initiating, Modifying or Deleting Course or Other Pertinent Comment:**

This course has been offered at WCC under the experimental alpha IS 1978. It permits students with handicaps or who lack swimming prerequisites or who are unable to enroll in lab to take the lecture portion of the Polynesian Voyaging curriculum.

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**Requested By:** [Signature]  
Date: 1-22-99

**Approved By:**

- **Department Chairperson**  
  [Signature]  
  Date: 2/3/99

- **Curriculum Committee**  
  [Signature]  
  Date: 2/11/99

- **Faculty Senate**  
  [Signature]  
  Date: 2/24/99

- **Dean of Instruction**  
  [Signature]  
  Date: 3/12/99

- **Provost**  
  [Signature]  
  Date: 3/29/99

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CCCM #6100  
(Amended for WCC use Sept. 1991)
### Levels of Review of Course Proposals at WCC

<table>
<thead>
<tr>
<th>Signatures</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Subject Area (one or more instructors in the area)</strong>&lt;br&gt;Joseph E. Ciotti&lt;br&gt;John D. Miller&lt;br&gt;Jane E. Smith</td>
<td>1-22-99&lt;br&gt;1-22-99&lt;br&gt;1-22-99</td>
</tr>
</tbody>
</table>

| **2. Department**<br>Malv<br>Department Chairperson | 1-22-99 |

Was this course discussed in a dept. mng. **Yes**<br>1-22-99

| **3. Division**<br>Curtis B. Pae<br>Assistant Dean of Instruction | 1/29/99 |

| **4. Curriculum Committee Review**<br>Approved | |

Disapproved

Reason:

| Curriculum Committee Chairperson | 2/19/99 |
Polynesian Voyaging and Stewardship Lab

1. How is this course related to the educational needs and goals of the College/Department/Community as reflected in the EDP?

This interdisciplinary course blends two of WCC’s areas of excellence: Hawaiian studies and marine-earth-space sciences. It also focuses on the Hawaii state goal of attaining a sustainable future.

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?

This is a team-teaching course involving instructors in Hawaiian Studies, Astronomy, Geology, Marine Science, and Ethnobotany.

3. Is a similar course taught elsewhere in the UH System? Yes
   If yes, provide details of how this course differs from existing similar courses.

At UH Manoa. However, this Hawaiian Studies course is still designated experimental (HS 398).

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

It was experimental over the past three years. There is at least one other similar experimental course at Manoa with another emerging at Kauai CC, Kapiolani CC, and Leeward CC.

5. Is a similar course taught on the upper division level by a 4-year UH college? Yes
   If yes, explain why this course is appropriate at the lower division, or how it differs from its upper division counterpart.

At UH Manoa. However, this Hawaiian Studies course is still designated experimental (HS 398).

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 attached criteria for transfer courses.)
OUTLINE OF COURSE OBJECTIVES

COURSE NAME: Polynesian Voyaging and Seamanship

COURSE NUMBER: IS 160A

COURSE CREDITS: 3 credits

CATALOG DESCRIPTION: This course focuses on the fundamentals of voyaging and seamanship by blending the traditions of Polynesian culture, history and skills with modern science and technology. An interdisciplinary approach is used in treating topics in Hawaiian studies, astronomy, geology, oceanography, meteorology, marine biology, ethnobotany and archaeology of Polynesia and Hawai'i.

PREREQUISITES/CO-REQUISITE: none

ARTICULATION BY CAMPUS: WCC: students may choose to receive credit for either Natural Sciences: Group 3 or Arts and Humanities: Group 2

REQUIRED TEXT/MATERIAL: • PVS Crew Manual

RECOMMENDED TEXT/MATERIAL: • reading lists/materials provided by individual instructors

ACTIVITIES REQUIRED AT TIMES OTHER THAN REGULAR CLASS TIMES: • see syllabus

ACTIVITIES REQUIRED OFF-CAMPUS DURING REGULAR CLASS TIMES: • see syllabus

OPTIONAL FIELD TRIPS:
• IS 160A students are invited to attend non-sailing excursions scheduled for the IS 160L lab course

<table>
<thead>
<tr>
<th>INSTRUCTORS:</th>
<th>Dr. Joseph Ciotti</th>
<th>Dr. Floyd McCoy</th>
<th>Mr. Kalani Meinecke</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFFICE:</td>
<td>Imiloa 134</td>
<td>Imiloa 115</td>
<td>Na'auao 110</td>
</tr>
<tr>
<td>OFFICE PHONE:</td>
<td>235-7322</td>
<td>235-7497</td>
<td>235-7454</td>
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</table>

<table>
<thead>
<tr>
<th>INSTRUCTORS:</th>
<th>Dr. David Krupp</th>
<th>Dr. Inge White</th>
<th>Mr. Kaau McKenney</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFFICE:</td>
<td>Imiloa 104</td>
<td>Imiloa 102</td>
<td></td>
</tr>
<tr>
<td>OFFICE PHONE:</td>
<td>235-7316</td>
<td>235-7318</td>
<td>595-8594 (H)</td>
</tr>
</tbody>
</table>
Education/Academic Support Specialist: Ms. Leimomi Dierks
OFFICE: Imiloa 108A
OFFICE PHONE: 235-7324

OFFICE HOURS: Schedule posted on office doors
EFFECTIVE DATE: Fall 1999
IS 160A: Polynesian Voyaging and Seamanship

SUPPLEMENTARY INFORMATION

A. Goals of the Course

This course strives to blend the traditions of the ancient Polynesian voyaging culture with present scientific knowledge in order to prepare students who will be better able to contribute to a sustainable future for Hawaii's environment.

The goals of the course are:

1. To provide the student with the fundamental knowledge and concepts of the physical and biological world, especially as related to our Hawaiian environment.
2. To enhance student awareness in the human endeavor of exploration and voyaging by developing the basic skills of seamanship and navigation.
3. To provide the student with both skills of and scientific approaches to voyaging and seamanship, both ancient and modern.
4. To cultivate and enhance the student's ability to reason by applying the scientific method and by utilizing traditional voyaging and seamanship skills.
5. To promote greater student appreciation and awareness of the impact which human activities have on our local and global environment.

B. Objectives of the Course

Upon successful completion of this course, the student will be able to demonstrate a general understanding of the following topics:

1.) basic geography of Polynesia
2.) fundamental concepts in positional astronomy
3.) basic principals in wayfinding (non-instrument navigation)
4.) identification of two of the four recognized star lines used for navigation
5.) overview of Polynesian migration as gleaned from archaeological findings
6.) settlement of Hawaii with emphasis on the Kane'ohe Bay area
7.) introduction to Polynesian mythology and cosmology
8.) basic concepts in geology and oceanography, especially of the Pacific area
9.) fundamentals of weather forecasting
10.) basic knowledge in native and Hawaiian plants
11.) recognize native and Polynesian plants useful in voyaging.
C. Expectations of Students

Success in this course will be enhanced by:

1. a positive, inquiring attitude toward learning.
2. setting aside adequate time for studying and working problems.
3. making notes and reading the suggested recommended literature.
4. seeking assistance from the instructor(s).
5. class attendance and responsibly obtaining all assignments and/or changes to the course syllabus.
6. keeping abreast with or ahead of the syllabus.

D. Mode of Instruction

Lecture/Discussion: The initial portion of each lecture period is used to discuss and clarify any questions from the preceding class meeting. The remaining portion is used to present and discuss new materials. Appropriate audio-visual materials will be used to supplement the lectures.

E. Method of Evaluation

Evaluation of the successful completion of the objectives of this course will be based on the following:

- MID-TERM EXAM ............................................................... 100 points
- FINAL EXAM ...................................................................... 150 points

TOTAL POINTS: 250

Mid-Term and Final exams will be administered within the classroom environment; all are closed-book. Test questions are cumulative and are extracted from all lecture topics in Hawaiian studies, astronomy, geology, oceanography, meteorology, marine biology, ethnobotany and archaeology of Polynesia and Hawai‘i.

Test dates are listed on the course syllabus. The student is responsible for keeping abreast with any changes in syllabus which are announced in class. Unless permission is granted by the instructor, all tests must be completed and submitted to the instructor at the specified date and time.
Each letter grade with its respective level of achievement is as follows:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Definition</th>
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<tbody>
<tr>
<td>A</td>
<td>90% - 100% of cumulative points possible</td>
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<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 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>
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*The Cr/NC option must be declared by the end of the 10th week of classes. Written consent of instructor is required for this option.*

| Cr | Achievement of objectives at the C level or higher. |
| NC | Achievement of objectives at less than C level. (Formal grade) |
| N  | Achievement of objectives at less than C level. (Optional instructor's grade) |
| W  | Official withdrawal after the third week of a 16-week course and prior to the end of the 10th week. If a student officially withdraws by the end of the 3rd week of a 16-week course, the record of registration in this course will not appear on the student's transcript. |

**F. Other Information**

1. If a student is unable to take an exam at the scheduled time, the student is responsible for notifying the instructor of the situation and reason(s). The student is responsible for requesting a make-up exam. An appropriate scoring penalty may be assigned to this make-up at the instructor's discretion. The student may be required to fulfill additional requirements as specified by the instructor in order to qualify for a make-up test. Any test not taken will be assigned a score of zero.

2. Retests are not permitted.

3. A student can determine how his/her current grade during any time of the semester by dividing his/her cumulative score by the cumulative points possible and converting into a percentage and referring to the table of Letter Grades.

4. Any student wishing to be informed of his/her semester grade in advance of the official mailing of report cards should provide the instructor a stamped, self-addressed postcard or envelope on the day of the Final Exam.
### IS160A/B & L Fall 1999

**A:** Astronomy  
**B:** Biological Sciences  
**G:** Geology/Oceanography  
**H:** Hawaiian Studies

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>WEDNESDAY</th>
<th>SATURDAY</th>
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<tbody>
<tr>
<td><strong>AUG</strong></td>
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</table>
| 23     | Introduction; Logistics | 28 Lab 8-11am orientation  
(Imiloa 133) |
| **AUG/SEP** | 30 H | 4 Lab 9-12 swim test & intro to *E'ala* sailing  
(Kaneohe Bay) |
| **SEP/OCT** | 20 A | 2 Lab 9-12 *E'ala* sailing; sail planning & weather  
(Kaneohe Bay) |
| 27 G | 29 G | 9 Lab 9-12 Mokapu Excursion  
(Floyd McCoy & Kalani Meinecke) |

<table>
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<tr>
<th>FRIDAY</th>
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</table>
| 17 Lab 7:30-9:00pm Stargazing  
(Lana'i Lookout) |

- **MONDAY**
  - 23: Introduction; Logistics
  - **AUG/SEP** 30 H
  - **SEP/OCT** 20 A Navigating Star Lines: Ke Ka o Makali'i & Ka Lupe o Kawelo

- **WEDNESDAY**
  - 25 H
  - **AUG/SEP** 1 H
  - **SEP/OCT** 29 G

- **SATURDAY**
  - 28 Lab 8-11am orientation  
(Imiloa 133)
  - 4 Lab 9-12 swim test & intro to *E'ala* sailing  
(Kaneohe Bay)
  - 11 Lab 9-12 Ho'omaluhia Park  
(Inge White)
  - 2 Lab 9-12 *E'ala* sailing; sail planning & weather  
(Kaneohe Bay)
  - 9 Lab 9-12 Mokapu Excursion  
(Floyd McCoy & Kalani Meinecke)

- **LABOR DAY**
  - 8 Intro to plant ID  
(Inge White)
  - **SEP/OCT** 29 G

- **FRIDAY**
  - 15 A Polynesian Cosmogony & Cosmology Star Maps  
(see Friday schedule)
  - 17 Lab 7:30-9:00pm Stargazing  
(Lana'i Lookout)
# IS160A/B & L  Fall 1999

A: Astronomy  B: Biological Sciences  G: Geology/Oceanography  H: Hawaiian Studies

<table>
<thead>
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<th>OCT</th>
<th>MONDAY</th>
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<tr>
<td>18</td>
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<td>27</td>
<td><strong>Horizon Coordinates</strong></td>
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<td>8</td>
<td>B</td>
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<tr>
<td>10</td>
<td><strong>Biology, Geology, Ecology of Coral Reefs (Dave Krupp)</strong></td>
<td><strong>Biology, Geology, Ecology of Coral Reefs (Dave Krupp)</strong></td>
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<td>15</td>
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**MON, Dec 13: FINAL EXAM IS160A&B 4:30 pm - 6:00 pm**