University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course

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  MET 101
3. Credits 3 credits

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

6. New Catalog Description
   Introduction to Meteorology (MET 101) studies basic atmospheric physics, Sun-Earth-atmosphere-ocean-human interrelationships, major weather systems and forecasting, with special emphasis on Hawai'i. For both science and non-science majors and prospective science teachers.

7. Select box and type specific information in text box.
   ☐ Prerequisites ☐ Corequisites or
   ☑ Recommended Preparation
   None

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

9. Proposed Date of First Offering
   Semester Fall
   Year 2003

10. This course ☑ is proposed for the Liberal Arts Program Program. ☑ can fulfill Nat Sci: Physical 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 Manoa</td>
<td>MET 101: Introduction to Meteorology</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>HonoluluCC</td>
<td>MET 101: Introduction to Meteorology</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>UH Hilo</td>
<td>GEOG 120: Weather and Climate of Hawaii</td>
<td>*</td>
<td></td>
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<tr>
<td></td>
<td>*</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
   Provide details of existing or desired articulation (date, college(s), purposes, pre-major, etc.) in this space:

   ☑ Appropriate for Articulation with UH Manoa
   Provide details of existing or desired articulation (date, college(s), purposes, pre-major or major, etc.) in this space:
   MET 101 is taught at UH Manoa. The proposed course is a lecture course (may be expanded later to include a laboratory) that is geared for both science and non-science majors and prospective science teachers. It fulfills the Diversification Requirement (DP: Physical Science in Natural Sciences).
   ☐ Not yet appropriate for Articulation.

14. Reason for Initiating, Modifying or Deleting Courses or Other Pertinent Comment:
   This course will expand our offerings in the area of natural science; it will provide additional subject options (under appropriate approval) for a variety of certificate programs (Hawaiian Studies; Marine Option Program; Environmental Studies, etc.).

Requested by: [Signature]
Department Chairperson

Approved by: [Signature]
Curriculum Committee Chairperson

Date

Date

Dean of Instruction

Date

Chancellor

Date

CCCM #6100 (Amended for WCC use October 2002)
<table>
<thead>
<tr>
<th>Signatures</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Department Area</td>
<td>1/23/04</td>
</tr>
<tr>
<td></td>
<td>2/1/04</td>
</tr>
<tr>
<td></td>
<td>2/15/04</td>
</tr>
<tr>
<td>Department Chairperson</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2/1/04</td>
</tr>
<tr>
<td>Was this course discussed in a</td>
<td>2/15/04</td>
</tr>
<tr>
<td>department meeting? Yes □ No</td>
<td></td>
</tr>
<tr>
<td>3. Division</td>
<td>2/1/04</td>
</tr>
<tr>
<td>4. Curriculum Committee Review</td>
<td></td>
</tr>
<tr>
<td>Approved □ 7-0</td>
<td></td>
</tr>
<tr>
<td>Disapproved □</td>
<td></td>
</tr>
<tr>
<td>Reason:</td>
<td></td>
</tr>
<tr>
<td>Curriculum Committee Chairperson</td>
<td>4/13/04</td>
</tr>
</tbody>
</table>
WCC Form for New Course Proposals
(This sheet was originally pink.)

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

   There is an unmet need for students to learn about our vital and rapidly changing atmospheric environment. MET 101 will fulfill this need, and enrich and enhance the teaching at WCC by diversifying our offerings in the area of Natural Sciences; it may contribute to certificate programs (eg. Marine Option Program) of the college.

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?

   The course will be taught by existing faculty. If the course should be expanded to include a laboratory, existing equipment used in GEOG 101-L is available. If other equipment becomes necessary, it will be purchased using EIF.

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.

   MET 101 is offered at UH Manoa and HCC (off-campus at the Kalaeloa Airport), and a similar course, GEOG 120, is infrequently offered at UH Hilo. UH Manoa's class has 50+ students in each section. At WCC, the maximum enrollment will be set at 30, thus more intimate educational instruction is possible. Also, the course will be regularly (if possible) offered on-campus at WCC.

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

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.

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.

CCCM #6100 (Amended for WCC use September 2002)
Original dated WCC 9/91
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 MET 101

Submitted by Floyd McCoy & Toshi Ikagawa

Date January 23, 2004

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

MET 101 is taught at UH Manoa. The proposed course is a lecture course (may be expanded later to include a laboratory) that is geared for both science and non-science majors and prospective science teachers. It fulfills the Diversification Requirement (DP: Physical Science in Natural Sciences).

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

Yes. It is taught at (1) UH Manoa as MET 101, (2) Eastern Kentucky University as GEO 215, and at (3) numerous other universities.

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.
University of Hawaii Community Colleges
Proposal to Initiate, Modify or Delete a Course
Articulation with 4-year UH Campus Form

COURSE ARTICULATION FORM (GENERAL EDUCATION CORE)

ORIGINATING CAMPUS: Windward Community College DATE SUBMITTED: January 23, 2004

COURSE ALPHA & NUMBER: MET 101 SEMESTER CREDITS: 3

COURSE TITLE: Introduction to Meteorology

DATE OF OUTLINE: January 23, 2004 Year 2003

(** 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>GEOG 120</td>
<td>Hawaiian/Asian/Pacific</td>
</tr>
<tr>
<td>UH Manoa</td>
<td>MET 101</td>
<td>DP</td>
</tr>
<tr>
<td>UH West Oahu</td>
<td>NA</td>
<td>NS</td>
</tr>
<tr>
<td>Hawaii CC</td>
<td>NA</td>
<td>NS2</td>
</tr>
<tr>
<td>Honolulu CC</td>
<td>MET 101</td>
<td>NS2</td>
</tr>
<tr>
<td>Kapiolani CC</td>
<td>NA</td>
<td>NS</td>
</tr>
<tr>
<td>Kauai CC</td>
<td>NA</td>
<td>General Education: NS</td>
</tr>
<tr>
<td>Leeward CC</td>
<td>NA</td>
<td>NS2</td>
</tr>
<tr>
<td>Maui CC</td>
<td>NA</td>
<td>NS</td>
</tr>
<tr>
<td>Windward CC</td>
<td></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.

Revised 1/29/2001
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 if 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.

Revised 1/29/2001
COURSE/CATALOG DESCRIPTION

Introduction to Meteorology (MET 101), 3 credits. Introduction to the study of basic atmospheric physics, Sun-Earth-atmosphere-ocean-human interrelationships, major weather systems and forecasting, with special emphasis on Hawai‘i. For both science and non-science majors and prospective science teachers.

COURSE NAME
Introduction to Meteorology

COURSE ALPHA
MET 101

CREDIT/CONTACT HOURS
(3)

PREREQUISITES
None

CO-REQUISITES
None

RECOMMENDED PREPARATION AND BASIC SKILLS

Ability to read and write at a college level is recommended. Knowledge of college level algebra and geometry is also helpful to understand course material.

SPECIFIC COURSE OBJECTIVES

At the completion of the course, the student should be able to:

1. Apply the scientific method to investigate major weather systems.
2. Employ basic atmospheric physics to explain weather phenomena.
3. Interpret Hawaiian weather maps and forecast local weather.
4. Inquire further into atmosphere-human interrelationships.

METHOD OF INSTRUCTION
Lecture

TEXT

Essentials of Meteorology by C. Donald Ahrens, Brooks/Cole Publishing Co.
REFERENCE AND SUPPLEMENTARY MATERIALS

Many informative web sites are available for the subjects covered, which includes:

1. NOAA Homepage (www.noaa.gov)
   Home page of the National Oceanic and Atmospheric Administration
2. The Weather Page (www.esdim.noaa.gov/weather_page.html)
   Provides numerous links
3. BOM (Australia) Homepage (www.bom.gov.au)
   Provides informative educational pages

EVALUATION

Two midterm exams (30% each) and one final exam (40%). The exams include multiple choice, true/false, matching, and/or essay type questions. Attendance (10%) may be included in the final grade. The grading uses the standard A-F scale.

COURSE CONTENT AND APPROXIMATE TIME TO BE SPENT ON EACH TOPIC

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction: Science of meteorology and scientific inquiry</td>
</tr>
<tr>
<td>2</td>
<td>Weather monitoring and forecasting</td>
</tr>
<tr>
<td>3</td>
<td>Origin, composition and structure of the Earth’s atmosphere</td>
</tr>
<tr>
<td>4</td>
<td>Solar and terrestrial radiation</td>
</tr>
<tr>
<td>5</td>
<td>Heat, temperature, and atmospheric circulation</td>
</tr>
<tr>
<td>6</td>
<td>Review and midterm #1</td>
</tr>
<tr>
<td>7</td>
<td>Air pressure</td>
</tr>
<tr>
<td>8</td>
<td>Humidity, saturation, and stability</td>
</tr>
<tr>
<td>9</td>
<td>Clouds, precipitation, and weather radar</td>
</tr>
<tr>
<td>10</td>
<td>Wind and weather</td>
</tr>
<tr>
<td>11</td>
<td>Review and midterm #2</td>
</tr>
<tr>
<td>12</td>
<td>Atmosphere’s planetary circulation</td>
</tr>
<tr>
<td>13</td>
<td>Weather systems of middle latitude</td>
</tr>
<tr>
<td>14</td>
<td>Thunderstorms and tornadoes</td>
</tr>
<tr>
<td>15</td>
<td>Tropical weather systems and summary</td>
</tr>
<tr>
<td>16</td>
<td>Final exam</td>
</tr>
</tbody>
</table>