Windward Community College Mission Statement

Windward Community College is committed to excellence in the liberal arts and career development; we support and challenge individuals to develop skills, fulfill their potential, enrich their lives, and become contributing, culturally aware members of our community.

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.

STUDENT LEARNING OUTCOMES

At the completion of the course the student will be able to:

1. Describe the components, processes and resulting weather patterns in the atmosphere.

2. Interpret the components of weather maps, and forecast weather.

3. Apply the scientific method and theories and concepts of meteorology (atmospheric physics) to explain major weather systems.

4. Explain critically the relationship between humans and the atmospheric environment.

REQUIREMENTS COURSE SATISFIES:

At WCC: Meets AA degree physical science requirement of the Natural Science requirements.
Also fulfill marine related elective requirement of the Marine
Option Program (MOP).

At UHM: Meets Natural Science general education requirements (DP).

**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.

**METHOD OF INSTRUCTION**

Online (Internet & Laulima)

Useful readings prepared by Dr. Brian Richardson
- (a) *Getting Started with Laulima*
- (b) *Forwarding Your UH Mail to Another Email Account*

**LEARNING RESOURCES**

Course package includes:

1. **Textbook**: *Weather Studies*, 3rd Ed. by Joseph M. Moran. American Meteorological Society

   ! Textbook is NOT online


3. Access to the [American Meteorological Society course homepage](http://www.wcc.hawaii.edu/facstaff/ikagawa-t/)

**Reference and Supplementary Materials**

Many informative web sites are available for the subjects covered. Check the links provided in the [MET 101](http://www.wcc.hawaii.edu/facstaff/ikagawa-t/) section of my [web page](http://www.wcc.hawaii.edu/facstaff/ikagawa-t/):
COURSE TASKS

Assignments:

The AMS online course materials are accessible at:

AMS Homepage

It is assumed that you will read and complete all assigned materials.

To access the MET 101 Laulima site:

https://laulima.hawaii.edu/portal

Useful readings prepared by Dr. Brian Richardson
(a) Getting Started with Laulima
(b) Forwarding Your UH Mail to Another Email Account

For additional information, see my web site at WCC:

http://www.wcc.hawaii.edu/facstaff/ikagawa-t/

________________________________________________________________

WARNING: Please do NOT share the Log-in information with a third party. Any violation of this confidentiality will lead you to dismissal from this course, at least.

________________________________________________________________

ASSESSMENT TASKS AND GRADING

Evaluation:

There will be 3 exams (100 points each; total 300 points), a self introduction/syllabus acceptance/presurvey (10 points), and 24 Investigations (A and B for each of 12 Chapters of the textbook; 10 points each; total 240 points). With the initial 3 tasks (10 points), there are 550 total points possible (See “Grading Scale” below).

The distribution of “10 points” for each Investigation/Current Weather assignment is as follows (that is, total 20 points for each Chapter):

<table>
<thead>
<tr>
<th>Subject</th>
<th>Evaluation</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answering questions in the</td>
<td>Calculated based on</td>
<td>8 pts</td>
</tr>
<tr>
<td>Investigation Manual (online input)</td>
<td>the % of your correct answers</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td>Discussions on Laulima (NOTE: Total 2 entries needed)</td>
<td>Reasonable 2 entries for each investigation*</td>
<td>2 pts</td>
</tr>
<tr>
<td>Total points possible</td>
<td>10 pts</td>
<td></td>
</tr>
</tbody>
</table>

*: "Reasonable" means that a single-line comment such as "That’s great!" will not count. Use your common sense, please.

**NOTE:** Submission of Investigations for Chapters 13, 14 and 15 (no discussion required) are considered extra credit work (total max. 30 points; see Due dates).

**ACADEMIC DISHONESTY**  (SERIOUS WARNING!!)

Academic dishonesty such as cheating and plagiarism that occur in this class will be severely punished. It most likely will result in immediate dismissal from the class. In other words, DON’T DO IT for any reason. It is NOT worth it.

**GRADING SCALE:** STANDARD SCALE

A: 90.0–100.0%, B: 80.0–89.9%; C: 70.0–79.9%, D: 60.0–69.9%, F: 0–59.9%.

For Credit/Non-Credit options, Incomplete ("I" grade), and “W” grade, see the WCC College Catalog. There is no "N" grade in this class.

**EXTRA CREDIT:** There are total of 100 points available as extra credit work for the class:

1. Extra exam (covers Ch 13-15; 25 points)
2. Postsurvey (similar to the presurvey) (15 points)
3. Investigations 13-15 (6 investigations; 5 points each; 30 points)
4. NWS visit report (30 points)

**WCC DISABILITIES ACCOMMODATION STATEMENT**

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu or you may stop by Hale 'Akoakoa 213 for more information.
ADDITIONAL INFORMATION

Legal assumptions:

It is hereby assumed that all students will strictly follow the WCC Code of Student Conduct (see Student Affairs, WCC Course Catalogue). Refer to the Student Conduct Code (http://www.hawaii.edu/apis/ep/e7/e7208.pdf) for the details.

COURSE CONTENT

COURSE PROCEDURES

1. Access: Because this is an online course, you need to be able to access

   (1) UH Laulima site: https://laulima.hawaii.edu/portal

   Useful readings prepared by Dr. Brian Richardson
   (a) Getting Started with Laulima
   (b) Forwarding Your UH Mail to Another Email Account

   (2) AMS online course homepage: www.ametsoc.org/amsedu/login.cfm

WARNING: Please do NOT share the access information with a third party. Any violation of this confidentiality will lead you to dismissal from this course, at least.

NOTE: If you have any questions about this course, please e-mail me using my UH e-mail address (Ikagawa@hawaii.edu). Always include “MET 101” in the subject field of your e-mail, so that I will notice it immediately.

2. Secrets of Success: Two key factors are especially important

   (1) Self motivation: Because this is an online course, nobody will push you to do the work. Thus, self motivation is a key factor of success in this course.

   (2) Communication: You are not alone. Continuous and open discussion among all participants is strongly recommended. You will use
the “Questions” and “Student Lounge” pages available in the Discussions and Private Messages tool of Laulima to communicate with each other. For online investigations, group work is encouraged (i.e., help each other).

3. Chapter review (textbook)

(1) Read the assigned pages of the textbook. Then study the review questions for the chapter (MS WORD format files are also available in Resources page).

To access automated reviews, from TOC, click Tests and Quizzes. You see MetCh01-08 (means “Chapter 1”), MetCh02-08, etc listed.

NOTE: You can access Reviews as many time as you wish. However, once an exam period starts, the corresponding review page will be closed. So, be sure to review questions ahead of the exam period. (NOTE: MS WORD versions will remain available in Resources)

This table shows the chapters in the textbook, corresponding review questions, and those for exams.

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Review</th>
<th>Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Review 1</td>
<td>Exam 1: Ch 1–4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(50 questions will be selected)</td>
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<tr>
<td>2</td>
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<td>3</td>
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<tr>
<td>4</td>
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<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Review 2</td>
<td>Exam 2: Ch 5–8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(50 questions will be selected)</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Review 3</td>
<td>Exam 3: Ch 9–12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(50 questions will be selected)</td>
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<tr>
<td>10</td>
<td></td>
<td></td>
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<tr>
<td>11</td>
<td></td>
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<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Review Extra</td>
<td>Extra Credit Exam (25 Q)</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Exams (online):

(1) You will take your 3 exams via Laulima at The Testing Center (TTC) on Windward Community College campus by the Due Dates.

! You can take each exam ONLY once.
NOTE: If necessary, you can arrange to take exams at other designated testing sites (Click “Student Resources” and go to the bottom of the page for “Exam Proctoring”). Please contact the instructor to set up your testing site.

The list of locations is found at:

http://www.hawaii.edu/uhcc.e-learn/#

Click Student Resources, and then scroll down to the 3rd table.

5. Investigation Manual (lab manual)

(1) Read the assigned pages of the textbook. Then study the assigned investigation in the Manual (A & B every week).

When you complete the investigation, enter your answers online on Laulima by the due date. You can access “Investigations” from Tasks, Tests and Surveys page.

NOTE: You can enter your answers only once. Be sure of your answers before submitting.

6. Discussion (online):

(1) Like you did in “Introduce Yourself” exercise, post your Report (i.e. your reactions, opinions, etc.; NOT the response form) in the appropriate topic area in the Class Discussions section of Discussions and Private Messages by the due date. For example, you can report how you did it, what mistakes you made, what questions you still have, etc.

WARNING: Please do NOT share the Discussions tool with a third party. Any violation of this confidentiality will lead you to dismissal from this course, at least.

During the first 2 weeks of instruction, to familiarize yourself with the Discussions and Private Messages tool, you introduce yourself (Report). Also, comment on at least two reports (Reply).

You can seek help from your fellow students by posting your problems in the Class Discussions section. It is strongly encouraged that you help each other.
To access Class Discussions:
Log in to Laulima → Go to MET 101 page
TOC > Discussions and Private Messages Tools

The Discussions opens. Go to Class Discussion. Click on the appropriate topic and compose your message. Your report should NOT exceed 250 words.

You can add your picture, or any picture you like (of course, nothing obscene or offensive, please), in Discussion and Private Messages, My Profile. Go to "Avatar" at the bottom of the page. Please use rather small pictures.

To compose your report, an easy way is to type your report using MS Word or other word processor, and then copy and paste it in a message. Don’t forget your Name.

Also, be sure to Reply to at least one entry in the Discussions. In other words, you write your reaction to at least one person’s report. For each Investigation/Current Weather assignment, therefore, you write TWO (one report and one reply) entries. Thus, you should have at least FOUR entries in the Discussion for each Chapter (2 for A and 2 for B). Again, you are strongly encouraged to assist your fellow students.

! Discussion for each chapter/investigation remains open until the due date mentioned above. Be sure to report and reply within this time period.

COURSE CONTENT OF EACH TOPIC

Investigations Listing

<table>
<thead>
<tr>
<th>1A: Air Pressure and Wind</th>
<th>1B: Surface Air Pressure Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>(copyright notice)</td>
<td>(copyright notice)</td>
</tr>
<tr>
<td>2A: Surface Weather Maps</td>
<td>2B: The Atmosphere in the Vertical</td>
</tr>
<tr>
<td>3A: Weather Satellite Imagery</td>
<td>3B: Sunlight Throughout the Year</td>
</tr>
<tr>
<td>4A: Temperature and Air Mass Advection</td>
<td>4B: Heating Degree-Days and Wind Chill</td>
</tr>
<tr>
<td>5A: Air Pressure Change</td>
<td>5B: Air Pressure in the Vertical</td>
</tr>
<tr>
<td>6A: Clouds, Temperature, and Air Pressure</td>
<td>6B: Rising and Sinking Air</td>
</tr>
<tr>
<td>7A: Precipitation Patterns</td>
<td>7B: Doppler Radar</td>
</tr>
<tr>
<td>8A: Surface Weather Maps and Forces</td>
<td>8B: Upper-Air Weather Maps</td>
</tr>
</tbody>
</table>
### COURSE DUE DATES

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self introduction &amp; Pre-survey</td>
<td>3rd week at <strong>WCC</strong></td>
</tr>
<tr>
<td>Syllabus acceptance</td>
<td>3rd week</td>
</tr>
<tr>
<td><strong>Investigations</strong></td>
<td></td>
</tr>
<tr>
<td>Answers (A &amp; B)</td>
<td><strong>Saturday evening</strong>, every week</td>
</tr>
<tr>
<td></td>
<td>(check due dates online in the Tasks, Tests &amp; Surveys page)</td>
</tr>
<tr>
<td>Discussions</td>
<td>Same as the above</td>
</tr>
<tr>
<td><strong>Exam</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>7th-8th week (Ends on Friday)</td>
</tr>
<tr>
<td>2</td>
<td>11th-12th week (Ends on Friday)</td>
</tr>
<tr>
<td>3</td>
<td>15th-16th week (Ends on Friday)</td>
</tr>
<tr>
<td><strong>All Extra Credit Assignments</strong></td>
<td>16th week (Last Day of Instruction)</td>
</tr>
</tbody>
</table>

For exact dates and time, check the Calendar on **Laulima**.

*Nothing will be accepted after the designated due dates.*

*Testing Centers may not be open on the due dates!*
Windward Community College
Welcomes you to

**MET 101**

*Meteorology is fun!!*

Optional orientation meeting
WCC Hale Imilo‘a 112B (Hoa‘aina Lab)

1/12 (M) 3:30 pm and
1/13 (T) 3:30 pm

Optional field trip (extra credit) to the
National Weather Service Forecast Office
Date & time will be announced later.

(Updated on: December 18, 2009)

**NOTE:** To start MET 101, you MUST complete the following 3 tasks (10 points). They are designed to make you familiar with the procedures you need to use **Laulima**:

1. After carefully reading this syllabus, download the Syllabus Acceptance Form from the Laulima Resources page, fill it up, and submit it via Assignments tool (into “Syllabus Acceptance”) by the end of the 3rd week. You can access the Resources and Assignments pages by clicking an appropriate name in the Table of Contents (TOC) on the left column. Without the acceptance, you are NOT allowed to participate in this course (i.e., dismissed with a failing grade). (No points assigned)

2. Access the Discussion and Private Messages page from TOC, click **Class Discussion**, and open **Introduce yourself** topic. You can introduce yourself to the class here. Please, however, refrain from subjects that are not appropriate in public discussion. (5 points)

3. Access the Tasks, Tests and Surveys page from TOC. Open **MET 101 Presurvey** (20 questions) and answer the questions. This survey is used for a Student Learning Outcome assessment purpose only. It is NOT an exam (although it is in a test format, and not anonymous for the purpose of giving points to individuals), thus if you take it, you will receive the full credit. (5 points)

When you complete the above 3 tasks, you will receive total of 10 points. Note that your points will be posted in the **Gradebook** under “Syllabus Acceptance.” Without the submission of your syllabus acceptance, the points will not be posted.