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

1. Type of Action
   - A. Addition
   - B. Deletion
   - C. Modification:
     - in credits
     - in title
     - in number or alpha
     - in prerequisites or co-requisites
     - Other

2. New Alpha, Number and Title
   - Dynamic Earth Laboratory
   - Credits: 1 credit

3. Old Alpha, Number and Title
   - GG 101
   - Credits: 4 credits

4. New Catalog Description
   (1 3-hr Lab) Hands-on study of minerals, rocks, and topographic maps. Examine volcanism, hydrology, coastal processes and hazards, geologic time and earthquakes. Field trips to investigate landslides, beaches and O‘ahu geology. A-F only. DY

5. Select box and type specific information in text box.
   - Prerequisites
   - Corequisites or Recommended Preparation

6. Student Contact Hours Per Week
   - Lecture
   - Lab
   - Other

7. Proposed Date of First Offering
   - Semester: Spring
   - Year: 2012

8. This course is proposed for the * Program.

9. 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>GG 101L</td>
<td>*</td>
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<tr>
<td>KapiolaniCC</td>
<td>GG 101L</td>
<td>*</td>
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<tr>
<td>LeewardCC</td>
<td>GG 101L</td>
<td>*</td>
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<tr>
<td>UH Hilo</td>
<td>GG 101L</td>
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</table>

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

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

12. Reason for Initiating, Modifying or Deleting Courses or Other Pertinent Comment:
   To bring the WCC course into the nomenclature of other campuses in the UH System for smooth and effortless articulation.

13. Articulation established with UHM and UHH
    Provide details of existing or desired articulation (date, college(s), purposes, pre-major, etc.) in this space:

14. Requested by: [Signature]  
   Date: [Date]

   Approved by:
   - Curriculum Committee Chairperson  
   - Faculty Senate Chairperson  
   - Vice-Chancellor for Academic Affairs  
   - Chancellor

   Date

   CCCM #6100 (Amended for WCC use October 2002)
Levels of Review of Course Proposal at Windward Community College

Course Alpha, Number, and Title:

<table>
<thead>
<tr>
<th>Signatures</th>
<th>Dates</th>
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<tr>
<td></td>
<td>4/10/11</td>
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<tr>
<td></td>
<td>4/13/11</td>
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</tbody>
</table>

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

2. Department

   Department Chairperson

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

3. Division

4. Curriculum Committee Review

   Approved ☐

   Disapproved ☐

   Reason:

   ________________________________
   Curriculum Committee Chairperson

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

WCC Form for Course Modifications

Course GGIOIL
Submitted by F. McCoy
Date April 9, 2014

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

Renaming course title, separating the lab portion from the lecture portion.

2. What is the rationale for the change?

Smooth and effortless articulation particularly with UHM and UHH

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

Yes, to emphasize this is the laboratory portion of the course.

4. Is the course articulated with any 4-year program? Yes

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

UHM - BS/BA in Geological Sciences
UHH - BS in Geology

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 impact...

6. Will this course modification result in any alterations in the number of hours required to attain a certificate or degree? * If yes, provide details and justification for these alterations.

No.

7. If the course is renumbered to 100 or above, does it meet the criteria for transfer level courses? Yes
GG 101L  Dynamic Earth Laboratory  
One Credit  
TBD

INSTRUCTOR:  Dr. Floyd W. McCoy
OFFICE:  Hale Imiloa 115
OFFICE HOURS:  TBD
TELEPHONE:  236.9115
EFFECTIVE DATE:  TBD

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

Hands-on study of minerals, rocks, and topographic maps. Examine volcanism, hydrology, coastal processes and hazards, geologic time and earthquakes. Field trips to investigate landslides, beaches and O‘ahu geology. A-F only. DY

Activities Required at Scheduled Times Other Than Class Times

Additional resources besides the textbook are needed, including a variety of books and magazines available in the WCC library, as well as selected websites and other sources of scientific information – these will be announced and identified as appropriate in class.

STUDENT LEARNING OUTCOMES

1. Students can explain the relevance of geology and geophysics to human needs, including those appropriate to Hawaii, and be able to discuss issues related to geology and its impact on society and planet Earth.
2. Students can apply technical knowledge of relevant computer applications, laboratory methods, and field methods to solve real-world problems in geology and geophysics.
3. Students use the scientific method to define, critically analyze, and solve a problem in earth science.
4. Students can reconstruct, clearly and ethically, geological knowledge in both oral presentations and written reports.
5. Students can evaluate, interpret, and summarize the basic principles of geology and geophysics, including the fundamental tenets of the sub-disciplines, and their context in relationship to other core sciences, to explain complex phenomena in geology and geophysics.

To be ignorant of what occurred before you were born is to always remain a child...  
[Marcus Tullius Cicero; Roman statesman, senator, orator, philospher: 106-43 BCE]
### COURSE CONTENT

<table>
<thead>
<tr>
<th>Concepts or Topics</th>
<th>Skills or Competencies</th>
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<tbody>
<tr>
<td>• Structure of the earth</td>
<td>1. Understand the scientific method, and how it is used and applied.</td>
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<td>• Plate tectonics</td>
<td>2. Understand the metric system.</td>
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<td>• Hot spot/midplate volcanoes</td>
<td>3. Apply an understanding of physical, chemical, and biological processes to interpreting geological events and processes.</td>
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<tr>
<td>• Geography of Hawaiian volcanoes</td>
<td>4. Use basic mathematical statements to describe geological properties and processes.</td>
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<tr>
<td>• Structure of Hawaiian volcanoes</td>
<td>5. Distinguish and reject <em>faux</em> science and misrepresentations of science.</td>
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<tr>
<td>• Rocks and minerals</td>
<td>6. Appreciate the technology behind the science of geology.</td>
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<tr>
<td>• Extrusive and intrusive igneous</td>
<td>7. Develop an appreciation for geology and rocks good for jocks.</td>
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<tr>
<td>• Hawaiian-type eruptions</td>
<td>8. Appreciate the spectrum of science and engineering endeavors that underlie the study of the earth.</td>
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<tr>
<td>• Predicting Hawaiian eruptions</td>
<td>9. Appreciate the history, literature, music, and mythology of the earth.</td>
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<tr>
<td>• Types and classification of igneous rocks</td>
<td>10. Comprehend the benefits and dangers of volcanism to society, and the mitigation of geological hazards.</td>
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<tr>
<td>• Formation &amp; crystallization of igneous rock</td>
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<tr>
<td>• Types of eruptions</td>
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<tr>
<td>• Stages of Hawaiian volc. &amp; island evolution</td>
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<tr>
<td>• Geologic history of Oahu</td>
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<td>• Mechanical and chemical weathering</td>
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<td>• Ground water</td>
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<td>• Mass wasting; aeolian processes</td>
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<tr>
<td>• Glaciers, glaciation and sea-level changes</td>
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<tr>
<td>• Landscape evolution; geomorphic cycle</td>
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<tr>
<td>• Rock cycle</td>
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<td>• Absolute and relative dating</td>
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<td>• Age of the Hawaiian Islands</td>
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<td>• Geologic time</td>
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<td>• Volc. hazards: identification, management, mitigation</td>
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### COURSE TASKS, ASSESSMENT AND GRADING

**Type of examination:** none. Grades will be determined from an average of alphanumeric grades assigned to laboratory and field reports consequent of each laboratory exercise.

**Extra/special credit:** encouraged, and delightfully given for attendance at seminars, lectures, talks, and participation in extracurricular research field projects including oceanographic cruises.

**Grading scheme:** letter grades calculated from an average of all laboratory grades:
- A = 90 - 100%
- B = 80 - 89%
- C = 70 - 79%
- D = 60 - 69%
- F = < 60%
- N = course not completed due to unforeseen difficulties
- C/NC = credit/no credit option, assigned only via registration
- I = incomplete due to unusual circumstances; assigned only with permission of the instructor; no credit given until this grade is changed to an A-D letter grade - it is your responsibility to make this change.

“Civilization occurs with the consent of geology.”
[Will Durant, American historian]
**LEARNING RESOURCES [aka, Laboratory Manual...]**

TBD

**Additional Information**

**Additional Field Trips:** Not required but highly recommended; 1 credit awarded for each course; to obtain credit for neighborhood island field trips, you must participate on every day of the trip, pass a written final examination, and submit a report on the field exercise; the Oahu field-trip course has different requirements that are noted below; complete course descriptions are given in the WCC catalog and on the WCC website. Each course involves a one-day field exercise, with data analyses done after the trip, and a complete report submitted prior to the end of the semester.

**GG 210 – Oahu Field Geology:** every fall semester; Wednesday afternoons, 1330–1615, meet in Hale ‘Imiloa Building (WCC) or at field site; short, easy hikes throughout the island to observe, discuss and map geologic features, field activities are mixed with laboratory exercises; transportation to field sites via private cars; course grade is a function of participation on fieldtrips and satisfactory completion of laboratory exercises [next offered fall, 2010].

**GG 211 – Big Island Field Geology:** every fall semester; four days during either Veteran's Day week-end or Thanksgiving Day week-end; involves short hikes and two difficult hikes (onto lava flows and on Mauna Kea), with one day on the summit of Mauna Kea (a harsh, cold, high-altitude environment) [next offered fall, 2009].

**GG 212 – Maui Field Geology:** spring semester, 2013; during first four days of spring recess; may involve a difficult one-day hike into Haleakala; also may involve field lab. exercise in difficult terrain.

**GG 213 – Molokai, Lanai and Kahoʻolawe Field Geology:** spring semester, 2011; during first five days of spring recess; involves hiking down to Kalaupapa with a day hike around the Kalaupapa peninsula, and four-wheel driving on rough roads on Lanai; also involves field lab. exercise(s) in difficult terrain.

**GG 214 – Kauai and Ni'ihau Field Geology:** spring semester, 2012; first four days of spring recess; involves short easy hikes; also involves field lab. exercises.

**Note:** All field classes require medical clearance and legal waiver forms; all involve hiking over irregular ground and can be difficult with potentially dangerous conditions; students are responsible for their expenses during the trip including transportation.

**Cautionary Note:** This laboratory course may involve some required meetings off campus in remote and/or difficult terrain, possibly in unsettled weather conditions, thus some degree of physical prowess is required – handicap facilities are not available and cannot be accommodated.

**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.*