

Course Material Submission Form

OAN Match Definition Form

Today's Date:	April 28, 2008
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Use this table to specify institutional data	
College/University:	Lorain County Community College
Name and title of individual submitting on behalf of the college/university	
Name:	Rosemary Schestag
Title:	Project Manager for Provost/VP Academic and Learner Services
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<p>Indicate the reason for this submission:</p> <p><input checked="" type="checkbox"/> New Course Match</p> <p><input type="checkbox"/> Revised Materials - Faculty review panel requested clarification</p> <p><input type="checkbox"/> Revised Materials - Institution submitting additional information</p> <p><input type="checkbox"/> Revised Materials - Course content revised by institution, including situations of both content and credit hour change</p> <p><input type="checkbox"/> Revised Materials - Other</p> <p>Describe specific revisions being made for "Revised Materials" submissions:</p> <p>Institutional Notes to Faculty Panel (the institution is encouraged to add any additional clarifications for this submission):</p>

Table 1 – Use this table to describe the course match for which materials are being submitted for the first time or revised.	
Proposed effective year and term of match (Final effective date will depend on actual approval of match by faculty panel. Effective Year and Term is the first term in which students taking the course will receive matching credit.)	
Semester institutions complete this row:	
2007 Academic Year	<input type="checkbox"/> Summer <input type="checkbox"/> Autumn <input checked="" type="checkbox"/> Spring
Quarter institutions complete this row:	
20 Academic Year	<input type="checkbox"/> Summer <input type="checkbox"/> Autumn <input type="checkbox"/> Winter <input type="checkbox"/> Spring
Ohio Articulation Number (OAN) (Use a separate form for each OAN.):	OSC012

Number of courses in the match:	1 (up to 10)	
Current status of match:	<input checked="" type="checkbox"/> First time submission	
	<input type="checkbox"/> Approved <input type="checkbox"/> Error <input type="checkbox"/> Error with enrollment	<input type="checkbox"/> Submitted <input type="checkbox"/> Resubmitted
Course or Courses being matched to or currently matched to the OAN listed above. (Course Numbers must be exactly what will appear on a student's transcript.):	Course Number	
	1.	PSSC 157
	2.	
	3.	
	4.	
	5.	
	6.	
	7.	
	8.	
	9.	
10.		

Table 2 - Use this table to submit course materials for the first time or to revise previously submitted course materials. You must submit each course in a separate form, repeating the match definition information in Table 1 above for each form submitted.					
Course Number. (Course Numbers must be exactly what will appear on a student's transcript.):	PSSC 157	Course Title:	Historical Geology		
Hours (be sure that the hours for this course matches the hours in the OAN.)					
<input checked="" type="checkbox"/> Semester Hours			<input type="checkbox"/> Quarter Hours		
Total Credit Hours	4	Lecture Hours	3	Laboratory Hours (if applicable)	2
Course Placement in Major:			<input checked="" type="checkbox"/> Major Requirement <input type="checkbox"/> Major Elective <input type="checkbox"/> Other		
Pre-Requisite Course work (if applicable) (Be sure this is consistent with the OAN definition): None					
Catalog/Course Description:					
Geologic history of the earth with emphasis on paleogeography and paleoclimate. Topics include plate tectonics, relative and absolute dating, rocks and minerals, interpretation of geologic maps, evolution, fossilization, major groups of fossils, and survey of geologic time. Laboratory required. (A special fee will be assessed.) <i>Natural Science Core Course</i>					
Texts/Outside Readings/Ancillary Materials (Be sure that the text meets performance expectations): <i>Earth Systems History 2nd</i> ed. By Steven Stanley					

Course Objectives and/or Plan of Work:

(Provide a clear indication of how the course objectives align with the matched OAN's learning outcomes. This will facilitate the faculty panel course review process.)

1. Understand the origin and evolution of the earth
 - *Explain how ideas about earth history have changed with time.*
 - *Explain the formation of the solar system using the Big Bang theory.*
2. Understand the physical and chemical history the earth
 - *Relate stratigraphic sequences to reconstruct geologic time.*
3. Understand the origin and evolution of life through geologic history
 - *Describe factors that contributed to the theory of evolution.*
 - *Use fossil evidence to support evolutionary changes of species.*
4. Understand methods of relative and absolute age dating
 - *Relate stratigraphic sequences to reconstruct geologic time.*
 - *Predict geologic time based upon paleogeographic map reconstruction.*
 - *Appreciate the vastness of geologic time.*
5. Interpret geologic history using rocks, fossils, and maps
 - *Classify rocks and minerals based upon composition and texture.*
 - *Interpret sedimentary environment using rock texture and mineral composition.*
 - *Relate stratigraphic sequences to reconstruct geologic time.*
6. Understand the evolution of significant geological concepts
 - *Describe the role of plate tectonics in paleogeography.*
7. Apply methods of scientific inquiry
 - *Predict geologic time based upon paleogeographic map reconstruction.*
 - *Relate stratigraphic sequences to reconstruct geologic time.*
 - *Interpret sedimentary environment using rock texture and mineral composition.*
 - *Predict geologic time based upon paleogeographic map reconstruction.*
 - *Use fossil evidence to support evolutionary changes of species.*
8. Interpret geologic maps
 - *Predict geologic time based upon paleogeographic map reconstruction.*
 - *Predict paleoclimate conditions based upon paleogeographic map reconstruction.*
9. Identify fossils
 - *Describe the process of fossil formation*
 - *Manipulate rock and mineral specimens to examine structure and composition.*

Description of Assessment and/or Evaluation of Student Learning (The

assessment plan needs to be appropriate for the expected rigor of the course) :

COURSE OUTCOMES & ASSESSMENT:	(Tools, Methods, and Expected Results)
Outcomes	Assessment Method(s) <i>*Most courses will address all three domains. In the instance when only two domains are addressed, include a justification in the Division cover letter.</i>
1. Cognitive/Knowledge <i>Classify rocks and minerals based upon composition and texture.</i>	<i>Item analysis of selected test and practical exam questions with expected student performance level of 70% or higher.</i>
2. Cognitive/Knowledge <i>Interpret sedimentary environment using rock texture and mineral composition.</i>	<i>Item analysis of selected test questions with expected student performance level of 70% or higher. Rubric analysis of written and oral presentation of research paper with expected student performance level of 70% or higher.</i>
3. Cognitive/Knowledge <i>Relate stratigraphic sequences to reconstruct geologic time.</i>	<i>Item analysis of selected test questions with expected student performance level of 70% or higher. Rubric analysis of written and oral presentation of research paper with expected student performance level of 70% or higher.</i>
4. Cognitive/Knowledge <i>Describe the role of plate tectonics in paleogeography.</i>	<i>Item analysis of selected test questions with expected student performance level of 70% or higher. Rubric analysis of written and oral presentation of research paper with expected student performance level of 70% or higher.</i>
5. Cognitive/Knowledge <i>Describe the process of fossil formation.</i>	<i>Item analysis of selected test questions with expected student performance level of 70% or higher.</i>
6. Cognitive/Knowledge <i>Describe factors that contributed to the theory of evolution.</i>	<i>Item analysis of selected test questions with expected student performance level of 70% or higher.</i>
7. Cognitive/Knowledge <i>Use fossil evidence to support evolutionary changes of species.</i>	<i>Item analysis of selected test questions with expected student performance level of 70% or higher. Rubric analysis of written and oral presentation of research paper with expected student performance level of 70% or higher.</i>
8. Cognitive/Knowledge <i>Explain how ideas about earth history have changed with time.</i>	<i>Item analysis of selected test questions with expected student performance level of 70% or higher.</i>

9. Cognitive/Knowledge Predict geologic time based upon paleogeographic map reconstruction.	Item analysis of selected test questions with expected student performance level of 70% or higher.
10. Cognitive/Knowledge Predict paleoclimate conditions based upon paleogeographic map reconstruction.	Item analysis of selected test questions with expected student performance level of 70% or higher. Rubric analysis of written and oral presentation of research paper with expected student performance level of 70% or higher.
11. Cognitive/Knowledge Explain the formation of the solar system using the Big Bang theory.	Item analysis of selected test questions with expected student performance level of 70% or higher.
12. Psychomotor/Skills Manipulate rock and mineral specimens to examine structure and composition.	Item analysis of selected test questions with expected student performance level of 70% or higher.
13. Affective/Disposition Appreciate the vastness of geologic time.	Item analysis of selected test questions with expected student performance level of 70% or higher. Rubric analysis of written and oral presentation of research paper with expected student performance level of 70% or higher.

Master Syllabi and Working Syllabi (if both are used):

PSSC 157 Historical Geology
Proposed syllabus

Instructor: Dr. Sue Clement
Phone:
email: sclement@lorainccc.edu

OFFICE HOURS:

Required Text: *Earth Systems History* 2nd ed. By Steven Stanley

Course Goals

My goal for this course is show you how basic principles of geology are applied to reconstruct the history of the Earth as it is preserved in the rock record. The course will consist of multimedia presentations, in-class exercises, discussions and case study presentations to illustrate these important concepts.

GRADING SUMMARY		
GRADE TYPE	DESCRIPTION	FINAL GRADE %
3 midterm exams	Multiple choice & short answer	30%
Required Comprehensive Final Exam	same format	20%
Case Study Project	Group Project: Summary of significant event in the geologic past that characterizes that time period.	25%

Lab Assignments	In-class and homework exercises	15%
Lab Exams	Fill-in practical exams	10%

Grade Scale: A \geq 90%, B 89%-80%, C 79%-70%, D 69%-60%, F < 60%

LABORATORY: The lab section is designed to provide you with skills to identify minerals in hand sample and using a petrography microscope. **WARNING:** This will require you to spend more than the allotted lab period to prepare for the lab practical and course exams. See the Lab Schedule for more details.

ATTENDANCE POLICY: You will quickly see there is a direct correlation between your attendance and a successful outcome in this class. Thus your attendance is mandatory and will be documented throughout the semester. As incentive, I reserve the right to reduce your final grade or to assign an "F" for any student with excessive undocumented absences.

MAKEUP EXAM POLICY: The lowest midterm exam will be dropped therefore; there will be no make-up exams. Exceptions can only be made for documented medical excuses. You must notify me when medically possible; otherwise the missed exam will count as your lowest exam grade.

Make up work will NOT be provided for in-class work but for homework an automatic point deduction will be taken.

ACADEMIC DISHONESTY: As described in the LCCC Catalog, any behavior deemed as cheating or as plagiarism will result in "F" for that exam or assignment.

STUDENTS WITH SPECIAL NEEDS are asked to contact the Office for Special Needs Services located in the Learning Resource Center room 115 (ext 4058) to obtain certification.

EARTH HISTORY

LECTURE SCHEDULE			
Week	Lecture Topic	Textbook Chapter	Lab
1	Class Basics & Scientific Method Fundamental Principles	Chapter 1	Intro to Geologic Time
2	Age Dating	Chapter 1	Rock ID
3	Earth Materials I Earth Materials II	Chapter 2	Rock ID, cont.
4	<i>Sedimentary Environments</i> Correlation & Stratigraphy	Chapter 5 Chapter 6	Sedimentary Structures
5	Plate Tectonics <i>Exam 1</i>	Chapter 8	Correlation
6	Tectonics & Mountain Chains The Diversity of Life	Chapter 9 Chapter 3	Plate Tectonics
7	Fossils & Evolution Research	Chapter 7	Ohio Geology

8	<i>The Archean Eon</i> Exam 2	Chapter 11	Review for Practical
9	The Proterozoic Eon Early Paleozoic	Chapter 12 Chapter 13	Lab Practical I
10	Middle Paleozoic Late Paleozoic	Chapter 14 Chapter 15	Fossil Preservation
11	Student Presentations <i>Exam 3</i>		Ohio Fossils
12	Mesozoic Era Early Mesozoic Life	Chapters 16 & 17	Other Paleozoic Fossils II
13	Student Presentations Age of Dinosaurs		Other Fossils
14	The Paleogene Era Neogene Era	Chapter 18 Chapter 19	Review For Practical
15	Pleistocene Glaciation Student Presentations	Chapter 19	Lab Practical II
<i>Final Exam</i>			

ADDITIONAL DOCUMENTATION:

COURSE DESCRIPTION WITH STUDENT OUTCOMES

LORAIN COUNTY COMMUNITY COLLEGE

DIVISION: Science and Mathematics

COURSE TITLE: Historical Geology

COURSE NUMBER: PSSC 157

		Contact Hours/Week			Weight		ILU's			
LECTURE/ RECITATION	=	3	x	LECTURE/ RECITATION	(1.0)	=	3			
LAB	=	2	x	LAB	(0.85)	=	1.7			
CLINICAL	=	0	x	CLINICAL	(1.0)	=	0			
*	=			*		=				
*	=			*		=				
TOTAL CONTACT HOURS:	=	5		TOTAL COURSE ILU's		=	4.7		CREDIT HOURS:	= 4

* Please refer to the "Quality Point Checklist for New and Revised Courses" and/or Pages 500.01 through 500.05 of the Ohio Board of Regents Operating Manual for Two-Year Campus Programs for Instructional Arrangements that are not identified as Lecture/Recitation, Lab or Clinical. (<http://www.regents.state.oh.us/progs/2vrmanual.pdf>)

IS THERE A SEPARATELY SCHEDULED LAB: Yes
IS THERE A SEPARATELY SCHEDULED CLINICAL: No

SPECIAL FACILITIES: Fully equipped geology lab

START YEAR/SEMESTER: Spring 2009

PREREQUISITE: None
(Please indicate course/s that must be taken before this course.)

COREQUISITE: None
(Please indicate course/s that must be taken with this course.)

CONCURRENT: **None**
(Please indicate course/s that must be taken before or with this course.)

CATALOG DESCRIPTION:

Geologic history of the earth with emphasis on paleogeography and paleoclimate. Topics include plate tectonics, relative and absolute dating, rocks and minerals, interpretation of geologic maps, evolution, fossilization, major groups of fossils, and survey of geologic time. Laboratory required. (A special fee will be assessed.) *Natural Science Core Course*

REQUIRED TEXTBOOK(S)/MATERIAL(S):

Earth Systems History 2nd ed. By Steven Stanley

TOPICAL OUTLINE: (COMMON CORE TOPICS)

- *Theories of earth history*
- *Geologic time:*
 - *Time scale*
 - *Relative dating: principles of original horizontality, superposition, inclusions, and lateral continuity*
 - *Radiometric dating: isotopes and half-life*
- *Minerals and rocks: formation and classification*
- *Stratigraphy*
- *Fossilization: methods, fossil morphology, fossil classification*
- *Evolution*
- *Plate tectonics*
- *Big Bang and formation of the solar system*
- *Geologic time periods: paleogeography, fossil assemblages, and climatology*
 - *Archean events*
 - *Proterozoic events*
 - *Paleozoic era*
 - *Mesozoic era*
 - *Cenozoic era*
 - *Paleogene and Neogene*
 - *Pleistocene Glaciation*

COURSE OUTCOMES & ASSESSMENT:	(Tools, Methods, and Expected Results)
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<p>10. Cognitive/Knowledge <i>Predict paleoclimate conditions based upon paelogeographic map reconstruction.</i></p>	<p><i>Item analysis of selected test questions with expected student performance level of 70% or higher.</i> <i>Rubric analysis of written and oral presentation of research paper with expected student performance level of 70% or higher.</i></p>
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<p>12. Psychomotor/Skills <i>Manipulate rock and mineral specimens to examine structure and composition.</i></p>	<p><i>Item analysis of selected test questions with expected student performance level of 70% or higher.</i></p>
<p>13. Affective/Disposition <i>Appreciate the vastness of geologic time.</i></p>	<p><i>Item analysis of selected test questions with expected student performance level of 70% or higher.</i> <i>Rubric analysis of written and oral presentation of research paper with expected student performance level of 70% or higher.</i></p>

GENERAL EDUCATION REQUIREMENT: OUTCOMES AND ASSESSMENT

Core course outcomes:

- C1: English: Demonstrate logical organization, coherent thinking, and precision in writing.
- C2: Mathematics: Utilize college mathematics to solve problems.
- C3: Natural Science: Apply scientific concepts and methods of inquiry.
- C4: Social Science: Apply concepts, principles and methods of inquiry in the social sciences.
- C5: Humanities: Examine the nature of human expression and/or artistic creativity.

Infused outcomes:

- In1: Critical Thinking: Employ critical thinking skills in addressing issues and problems.
- In2: Communication: Demonstrate competence in verbal and nonverbal communication.
- In3: Diversity: Analyze the role of diversity in the development of the individual, the community, and the global society.
- In4: Ethics: Apply personal, professional, social and civic values.
- In5: Health: Identify behaviors that promote health of the individual.

General Education Outcomes	Corresponding Course Outcomes
C3: Natural Science: Apply scientific concepts and methods of inquiry. <i>Natural Science core course</i>	#2, 3, 7, 9, 10 and 11
In1: Critical Thinking: Employ critical thinking skills in addressing issues and problems.	#2, 3, 7, 9, and 10

SUGGESTED INSTRUCTIONAL METHOD(S) AND TECHNIQUE(S):

Lecture, Posters and illustrations from other books, Field Trips, Lab, Slides, Displays - including samples of minerals, rocks, books, professional journals.

GRADING PROCEDURES:

<i>Tests</i>	<i>50%</i>
<i>Research project</i>	<i>25%</i>
<i>Lab exercises</i>	<i>15%</i>
<i>Lab practicals</i>	<i>10%</i>

TRANSFER MODULE REQUIREMENT CHANGES:

- None
- Add to English Composition area of Transfer Module
- Add to Arts/Humanities area of Transfer Module
- Add to Social and Behavioral Sciences area of Transfer Module
- Add to Mathematics area of Transfer Module
- Add to Natural and Physical Sciences area of Transfer Module

MISCELLANEOUS

OSC012 Add to Transfer Assurance Guide (TAG)/Ohio Articulation Number (OAN)

- Add "G" for International Course (at least 30% of content is outside U.S.)
- Course/Cluster Program Review Underway

OTHER RESOURCES INCLUDING EQUIPMENT AND SOFTWARE:

- Library/Learning Resource Review
- IS&S/ITMS Resource Review (Complete form if special technology is needed.)
- Facilities Planning Resource Review (Complete form if special facilities are needed.)

Date: March 2008

OBR Use

Approved-Effective Date	
Pending (i.e. Additional Information Requested)	
Disapproved	
Today's Date	