



Purpose: It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

Course Title – Historical Geology

Course Prefix and Number – GEOL 1304

Department - Geology

Division - Math & Science

Course Type: (check one)

- Academic General Education Course (from ACGM – but not in WCJC Core)
- Academic WCJC Core Course
- WECM course (This course is a Special Topics or Unique Needs Course: Y or N)

Semester Credit Hours # : Lecture Hours # : Lab/Other Hours # 3:3:0

Equated Pay hours for course - 3

Course Catalog Description - Introduction to the history of the earth and its past inhabitants. Provides a broad overview of fossil records as evidence of the various kinds of plants and animals that have existed on earth. GEOL 1104 must be taken with this course to fulfill the 4 semester credit hour requirement for natural science in a degree plan.

| |
|--------------------------|
| List Lab/ Other Hours |
| Lab Hours |
| Clinical Hours |
| Practicum Hours |
| Other (list) |

Prerequisites/Co-requisites - TSI satisfied in Reading and Writing

Prepared by Danny Glenn

Date 09/08/2013

Reviewed by Department Head Danny Glenn

Date 09/08/2013

Accuracy Verified by Division Chair Kevin Dees

Date 09/08/2013

Approved by Dean or Vice President of Instruction *ggghunt*

Date 09/08/2013



I. Topical Outline – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non-lecture instruction):

Introduction to Earth System History

- Earth Materials and Features
- Geologic Time
- Life on Earth and its Fossil Record
- Biologic Evolution
- Interpreting Sedimentary Environments and Global Change
- Plate Tectonics and Earth History
- Archean World - Geology and Life Forms, especially the development of Life
- Proterozoic World - Geology and Life Forms, with emphasis on the expansion of types of soft-bodied life forms
- Paleozoic World - Geology and Life Forms with emphasis on the development of Terrestrial Plants and Terrestrial Vertebrate Organisms
- Mesozoic World - Geology and Life Forms - The Rise of Dinosaurs and development of Mammals
- Cenozoic World - Geology and Life Forms with emphasis on the Rise of Primates and the Evolution of Humans

II. Course Learning Outcomes

| Learning Outcomes | Methods of Assessment |
|--|---|
| <p>Upon successful completion of this course, students will:</p> <ol style="list-style-type: none"> 1. Describe how the application of the scientific method has led to our current understanding of Earth history. 2. Explain the historical development of Geology as a science and how it was influenced by early interpretations of fossils and the theory of evolution. 3. Communicate how principles of relative and numerical age dating have been used to develop the Geologic Time Scale. 4. Describe the processes involved in the formation and differentiation of the Earth and identify major milestones in the physical evolution of the planet. 5. Identify the major milestones in the evolution of life from its initial inorganic stages, through development of the major animal and plant groups, to mass extinctions. | <ol style="list-style-type: none"> 1. Quizzes, Labs, Exams 2. Quizzes, Labs, Exams, Group Projects 3. Quizzes, Labs, Exams 4. Quizzes, Labs, Exams, Essays 5. Quizzes, Labs, Exams, Essays |

| | |
|---|---------------------------------|
| 6. Explain how rocks and fossils are used to interpret ancient environments. | 6. Quizzes, Labs, Exams, Essays |
| 7. Identify the major tectonic events in the geologic evolution of North America. | 7. Quizzes, Labs, Exams |

III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.

GEOL, Reed Wicander and James Monroe, Cengage Publishing, (January 1, 2013)

ISBN-13: 978-1- 133-10874-0

IV. Suggested Course Maximum - 36

V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.

Lecture Classroom and designated geology lab room with storage/housing of specimens of minerals, rocks, fossils and other geology-related teaching materials.

VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course

Grading Components are:

- the “**Lecture Average**” = 75% of Student’s Overall Course Grade
- the “**Course Final/EXIT**” = 25% of Student’s Semester Course Grade

The “**Lecture Average**” is defined as the numerical average of components A, B, & C listed below. The average of these three components will constitute 75% of the “Student’s Overall Course Grade” and consists of:

- A. At least 3 major Lecture Exams (Not including the Final/EXIT)
- B. 1 - Essay/Term Paper (Grade equally weighted as a lecture exam)
- C. 1 - Group Power Point Project (no less than 5% of Lecture Grade)

The Final/EXIT:

- D. The Course Final/EXIT accounts for the last 25% of the student’s Overall Course Grade”

The Student’s Overall Course Grade is compiled by:

(“Lecture Average” times 3) plus (Final/EXIT grade), and divide all by 4 will equal the “Overall Student Course Grade”

VII. Curriculum Checklist

- **Academic General Education Course** (from ACGM – but not in WCJC Core)
No additional documentation needed

- **Academic WCJC Core Course**
Attach the Core Curriculum Review Forms

- Critical Thinking
- Communication
- Empirical & Quantitative Skills
- Teamwork
- Social Responsibility
- Personal Responsibility

- **WECM Courses**

If needed, revise the Program SCANS Matrix & Competencies Checklist.



Core Curriculum Review Form

Foundational Component Area: **Life & Physical Sciences**

Course Prefix & Suffix: _____

Core Objective: **Critical Thinking Skills**—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

Student Learning Outcome supporting core objective:

For each core objective, there must be at least two different methods of assessment.

| SLO Status | Student Learning Outcome (SLO) | Learning Activity | Assessment |
|--|---|---|--|
| The SLO is: | Insert SLO (from Administrative Master Syllabi) below | Provide a brief name and description of the sample learning activity: | Provide a brief name and description of the sample quiz, exam, rubric, assignment, etc. for assessing the objective: |
| <input type="checkbox"/> Existing <input type="checkbox"/> Revised <input type="checkbox"/> New <input type="checkbox"/> State Mandated | | | |
| <input type="checkbox"/> Existing <input type="checkbox"/> Revised <input type="checkbox"/> New <input type="checkbox"/> State Mandated | | | |
| <input type="checkbox"/> Existing <input type="checkbox"/> Revised <input type="checkbox"/> New <input type="checkbox"/> State Mandated | | | |

Department Head: _____

Date: _____



Core Curriculum Review Form

Foundational Component Area: **Life & Physical Sciences**

Course Prefix & Suffix: _____

Core Objective: **Communication Skills**—to include effective development, interpretation and expression of ideas through written, oral and visual communication

Student Learning Outcome supporting core objective:

For each core objective, there must be at least two different methods of assessment.

| SLO Status | Student Learning Outcome (SLO) | Learning Activity | Assessment |
|--|---|---|--|
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Core Curriculum Review Form

Foundational Component Area: **Life & Physical Sciences**

Course Prefix & Suffix: _____

Core Objective: **Empirical and Quantitative Skills**—to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

Student Learning Outcome supporting core objective:

For each core objective, there must be at least two different methods of assessment.

| SLO Status | Student Learning Outcome (SLO) | Learning Activity | Assessment |
|--|---|---|--|
| The SLO is: | Insert SLO (from Administrative Master Syllabi) below | Provide a brief name and description of the sample learning activity: | Provide a brief name and description of the sample quiz, exam, rubric, assignment, etc. for assessing the objective: |
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Department Head: _____

Date: _____



Core Curriculum Review Form

Foundational Component Area: **Life & Physical Sciences**

Course Prefix & Suffix: _____

Core Objective: **Teamwork**—to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Student Learning Outcome supporting core objective:

For each core objective, there must be at least two different methods of assessment.

| SLO Status | Student Learning Outcome (SLO) | Learning Activity | Assessment |
|--|---|---|--|
| The SLO is: | Insert SLO (from Administrative Master Syllabi) below | Provide a brief name and description of the sample learning activity: | Provide a brief name and description of the sample quiz, exam, rubric, assignment, etc. for assessing the objective: |
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Department Head: _____

Date: _____