COURSE INFORMATION

Course Title
Earth History

Course Description (60 words max)
Comprehensive treatment of the earth’s past as interpreted through the study of rocks and fossils. Basic concepts include geologic time and age dating, and the physical, chemical, and organic evolution during geologic time periods (Archean, Proterozoic, Phanerozoic). The history of plate movement and mountain building events, especially in North America, are also major themes. Three hours lecture, two hours lab.

Course Abbreviation and Number
EES 2550

Course Credit Hours
4 semester hours

Course Cross Listing(s) Abbreviation and Number
None

This course is an Element 6 Core Course of the Wright State Core.

General Education Course X
Writing Intensive Course ___
Service Learning Course ___
Laboratory Course ___
Ohio TAG (Transfer Assurance Guide) Course ___X___
Ohio Transfer Module Course ___X______
Other Lecture, Laboratory ___

COURSE REGISTRATION

Prerequisites
EES 2510 Dynamic Earth

Co-requisites
None

Restrictions
None

Other

STUDENT LEARNING OUTCOMES
By completing this course in Area 6 (Natural Sciences) of the Wright State Core, students will meet the general learning outcomes, and will

a. Understand the nature of scientific inquiry
b. Critically apply knowledge of scientific theory and methods of inquiry to evaluate information from a variety of sources
c. Distinguish between science and technology and recognize their roles in society
d. Demonstrate an awareness of theoretical, practical, creative and cultural dimensions of scientific inquiry
e. Discuss fundamental theories underlying modern science

Students will also meet the leaning outcomes specific to this course and will be able to

1. Understand the origin and evolution of the earth
2. Understand the physical and chemical history the earth
3. Understand the origin and evolution of life through geologic history
4. Understand methods of relative and absolute age dating
5. Interpret geologic history using rocks, fossils, and maps
6. Understand the evolution of significant geological concepts
7. Apply methods of scientific inquiry
8. Interpret geologic maps
9. Identify fossils

SUGGESTED COURSE MATERIALS

REQUIRED


SUGGESTED METHOD OF INSTRUCTION

Lecture ___Lecture, Lab___
Seminar ______
Distance Learning_______
Web-Based _____
Other ________________

SUGGESTED EVALUATION AND POLICY

Labs:
Lab will consist of a brief introduction with an accompanying exercise. Assignments may include brief write-ups, inquiry based learning activity, hands on identification, etc.

**Exams**

There will be three exams given during the semester. These exams will consist of multiple choice, short answer, and essay questions.

**Class Policies:**

While attendance is not mandatory, it is highly recommended.

Classroom announcements will be made on changes to the syllabus, such as changes in exam and assignment dates, topics covered, and reading assignments; all changes are the responsibility of the student. Make-up exams are strongly discouraged. Exams cannot be made up except in case of absence due to illness, court appearance, or military duty when properly authenticated in writing by the appropriate authority. Make-up tests will only be given to students that have a valid excuse (Medical/Family Emergency). Makeup exams are at the discretion of the Instructor.

**SUGGESTED GRADING POLICY**

The final grade for EES 2550 will be calculated in the following manner:

Exam 1 ...........................................20%
Exam 2 ...........................................25%
Exam 3 ...........................................25%
In-class exercises and participation ...5%
Lab ...............................................25%

Final grades will be assigned letter grades based on the following scale:

- 90 – 100...........................................A
- 80 – 89..........................................B
- 70 – 79..........................................C
- 60 – 69..........................................D
- Below 60.......................................F

**SUGGESTED ASSIGNMENTS AND COURSE OUTLINE**

(Topic and/or typical assignments)

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Text (read prior to lecture)</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Science of Historical Geology</td>
<td>1,2</td>
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<tr>
<td>Week 2</td>
<td>Time and Geology</td>
<td>3</td>
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<td>Week 3</td>
<td>The Sedimentary Archive</td>
<td>5</td>
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<tr>
<td>Week 4</td>
<td>Life on Earth: What do Fossils Reveal</td>
<td>6</td>
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### Topical outline for the laboratory component.

<table>
<thead>
<tr>
<th>Week 1</th>
<th>No Lab</th>
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<tbody>
<tr>
<td>Week 2</td>
<td>Measuring Geologic Time</td>
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<td>Week 3</td>
<td>Sedimentary Structures and Depositional Environments</td>
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<td>Week 4</td>
<td>Stratigraphy</td>
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<td>Week 5</td>
<td>Physical Stratigraphy</td>
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<td>Week 6</td>
<td>Introduction to Paleontology</td>
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<td>Week 7</td>
<td>Trace Fossils</td>
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<td>Week 8</td>
<td>Identification of Major Phyla Part 1</td>
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<td>Week 9</td>
<td>Identification of Major Phyla Part 2</td>
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<td>Week 10</td>
<td>Applied Paleontology</td>
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<td>Week 11</td>
<td>Fossils and Geologic Maps</td>
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<td>Week 12</td>
<td>Field Study of Rocks and Fossils Part 1</td>
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<tr>
<td>Week 13</td>
<td>Field Study of Rocks and Fossils Part 2</td>
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<td>Week 14</td>
<td>Laboratory Final</td>
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