|  |  |
| --- | --- |
| **Course Title:** | History of Geology |
| **Course Code:** | **Geo 495** |
| **Program:** | **Geology** |
| **Department:** | **Geology and Geophysics** |
| **College:** | **Of Sciences** |
| **Institution:** | **King Saud University.** |

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# A. Course Identification

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1. Credit hours:** | | | |  | | | | | | | | | | | | |
| **2. Course type** | | | | | | | | | | | | | | | | |
| **a.** | University | |  | | College | | |  | Department | | | | **X** | Others |  |  |
| **b.** | | Required | | | |  | Elective | | | **X** |  | | | | | |
| **3. Level/year at which this course is offered:** | | | | | | | | | | | |  | | | | |
| **4. Pre-requisites for this course** (if any)**:** | | | | | | | | | | | | | | | | |
| **5. Co-requisites for this course** (if any)**:** | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | |

## 6. Mode of Instruction (mark all that apply)

| **No** | **Mode of Instruction** | **Contact Hours** | **Percentage** |
| --- | --- | --- | --- |
| **1** | **Traditional classroom** | 15 | 100 |
| **2** | **Blended** |  |  |
| **3** | **E-learning** |  |  |
| **4** | **Distance learning** |  |  |
| **5** | **Other** |  |  |

**7. Contact Hours** (based on the academic semester)

|  |  |  |
| --- | --- | --- |
| **No** | **Activity** | **Contact Hours** |
| **1** | **Lecture** | 15 |
| **2** | **Laboratory/Studio** |  |
| **3** | **Tutorial** |  |
| **4** | **Others** (specify) |  |
|  | **Total** | 15 |

# B. Course Objectives and Learning Outcomes

|  |
| --- |
| 1. Course Description Beginnings of earth sciences and the contribution of Arab and Muslim scholars – the evolution of modern concepts in Geology – the emergence of the main disciplines of earth sciences - catastrophism and uniformitarianism – plutonists and neptunists – Geologic controversies on the ice age, granitization and age of the Earth – continental drift and the theory of plate tectonics. |
|  |
| 2. Course Main Objective |
| * Give a general concept of the historian and philosophers taught and evolutions theories on the earth’s geosciences. * Give a closing link that changes in the earth take place as the science of the earth’s geological history. * Focus and recognize the history of geology educational sciences based on the philosopher’s ideas and theories. * Show the earth’s geological history theories and ideas changed and shaped as earth’s geology over time. * Give trace of Muslim and European scholars ideas and research contributions to the earth’s geological history. Paved the way to our present-day understanding and knowledge concerning our planets and to the life diversity inhabited. |

## 3. Course Learning Outcomes

| **close** | | **Aligned****PLOs** |
| --- | --- | --- |
| 1 | **Knowledge and Understanding** |  |
| 1.1 | Define and understand the changes of the earth’s history sciences evolution to modern geological history over time until nowadays, as a continuation of scholar and philosopher change theories and ideas. | PLO-1 Gain knowledge about the history of earth geology through the taught of philosophers. |
| 1.2 | Recall and describe the evolutionary continuous change in earth’s sciences history based on the Muslim and European philosophers. |
| 1.3 | Define the historian and philosopher and their contribution to the earth’s sciences history |
| 1... |  |
| **2** | **Skills :** |  |
| 2.1 | Evaluate and compare the present and old different scholars theories of the geological sciences by using the facts of the earth’s continuous different scholars taught and ideas | PLO-2Attain skills about different changes theories via the earth’s history |
| 2.2 | Justify and Demonstrate the scholars’ theories concern the earth geology changes either based on scientific purpose or religious and |
| 2.3 |  |
| 2... |  |
| **3** | **Values:** |  |
| 3.1 | Conclude and discuss that the present time uses the facts of the earth’s historical events and evolution theories processes | PLO-3 Communicate individually correctly, orally and written as well as acting properly in teamwork or among a groups |
| 3.2 | **Simplify and conclude by tracing the origin of Geological historical knowledge of the “Golden Age” of the Islamic civilization.** |
| 3.3 |  |
| 3... |  |

# C. Course Content

|  |  |  |
| --- | --- | --- |
| **No** | **List of Topics** | **Contact Hours** |
| 1 | Basic Concepts and a brief history of the development of the natural science of geology concerns its history, origin, and structures of the earth. | 2 |
| 2 | Contributions of early Muslim scholars to the field of earth sciences | 2 |
| 3 | The early knowledge of the history of the Earth | 2 |
| 4 | **The earth’s historical development in the middle ages.** | 2 |
| 5 | Earth historical development in the 18th-century***.*** | 2 |
| .6.. | Earth historical development in the 19th-century***.*** | 1 |
| 7 | Earth’s historical development and the modern trends in development geologic sciences in 20th-century | 1 |
| 8 | The theory of plate tectonics. | 1 |
| 9 | Modern geology, *Catastrophism, Uniformitarianism, and Gradualism* | 1 |
| 10 | The Advancing of Modern Technological and Development had been affected in all the different geologic disciplines branches. | 1 |
|  |  |  |
| **Total** | | 15 |

# D. Teaching and Assessment

## 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

| **Code** | **Course Learning Outcomes** | **Teaching Strategies** | **Assessment Methods** |
| --- | --- | --- | --- |
| **1.0** | **Knowledge and Understanding** | | |
| 1.1 | **Define basic concepts related to the history of geology theories evolution** | *Lecturing, Homework, projects, tests and assignments.* | * **Preliminary qualifying quizzes and Homeworks major and final exams.** |
| 1.2 | **Recall, outline, analyze, prepare, and revise the concept and in scholarly geological and other sciences through different stages and processes.** | **Lecturing** | * **Preliminary qualifying examination.** * **Pertain to the student’s research emphasis.**   **Oral and presented a small project presentation report.** |
| … |  |  |  |
| **2.0** | **Skills** | | |
| 2.1 | * Compare and state the changes in earth’s theoretical of geological and other sciences from ancient times till now. | Homework assignments | * Preliminary qualifying examination.   Oral exams, Quizzes |
| 2.2 | Explain, and interpret concepts, geological theories, and observational findings of numerous scholars and philosophers since ancient times till now. | Students reading ability of library research, let students work in groups and discuss their ideas in solving complications | Checking through homework assignments, library’s research, writing assignments and carrying small projects. |
| … |  |  |  |
| **3.0** | **Values** | | |
| 3.1 | The ability to work effectively in groups, exercise leadership and write a scientific report. | Writing small project’s assignments, lab’s work reports | * Assignments of research library’s, writing.   Writing and presenting small projects |
| 3.2 | Planning and taking responsibility for grasping self-learning and working in teamwork. | Combining the internet and utilizing the computers technologies in the course necessities | * Reading some articles and summarizing them. |
| … |  |  |  |

## 2. Assessment Tasks for Students

| **#** | **Assessment task\*** | **Week Due** | **Percentage of Total Assessment Score** |
| --- | --- | --- | --- |
| **1** | **Attendance, Homeworks (Questions, research on topics or literature reviews), and assignments** (class quizzes, scientific reports) | ***weakly*** | ***5%*** |
| **2** | **First Assessment Exam** | **6** | **30%** |
| **3** | **Presentation of Projects** | **8** | **5%** |
| **5** | **Second Assessment Exam** | **13** | **20%** |
| **6** | **Final Exam** | **15** | **40%** |
| **7** | **Total** |  | 100% |
| **8** |  |  |  |

**\*Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

# E. Student Academic Counseling and Support

|  |
| --- |
| **Arrangements for the availability of faculty and teaching staff for individual student consultations and academic advice :** |
| * ***The faculty member by role and college regulation has to allocate six consultation office hours per week.*** * ***These consultation office hours should be scheduled, timed and to be put or hung on the front of the faculty member’s office door for seeking the students’ attention.*** |

# F. Learning Resources and Facilities

## Learning Resources

|  |  |
| --- | --- |
| **Required Textbooks** | O’ Hara K. D. (2018). A brief history of geology, University printing house, Cambridge CB 8BS, NY 1006, USA. |
| **Essential References Materials** |  |
| **Electronic Materials** | Websites about the course |
| **Other Learning Materials** |  |

## 2. Facilities Required

| **Item** | **Resources** |
| --- | --- |
| **Accommodation**  (Classrooms, laboratories, demonstration rooms/labs, etc.) | * **Classroom equipped with smart boards connected with networks, overhead projector.** * **The Lab equipped with a blackboard, data show projectors are aligned with the computer.** |
| **Technology Resources**  (AV, data show, Smart Board, software, etc.) | * ***Computer Lab should be equipped with at least 15 hardware, assisted with suitable software, one data show, and one smartboard.*** |
| **Other Resources**  (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list) | Nil |

# G. Course Quality Evaluation

| **Evaluation**  **Areas/Issues** | **Evaluators** | **Evaluation Methods** |
| --- | --- | --- |
| *Student* course questionnaire evaluation | students | Direct evaluation |
| -peer review | Faculty members | Direct evaluation |
| *Periodical departmental revisions of its methods of teaching.* | * + Faculty members get-together for and course discussion.   Program Coordinator. | Direct evaluation |
| *Course Coordinator assessment and course’s efficiency of teaching delivery.* | *Course Coordinator* | Direct evaluation |
| Committees of quality system review all deficiencies based on the students and faculty evaluation, | Program Coordinator. | Direct evaluation |
|  |  |  |
|  |  |  |

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, quality of learning resources, etc.)

**Evaluators** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

**Assessment Methods** (Direct, Indirect)

# H. Specification Approval Data

|  |  |
| --- | --- |
| **Council / Committee** |  |
| **Reference No.** |  |
| **Date** |  |