Course Title: GLG 101 Physical Geology
Term: Fall 2022
Instructor: TBA
Course Credit: 3
Mode of Instruction: Online

Course Description:

This course provides the knowledge of fundamental physical aspects of the earth's crust; rocks and minerals, structures, landforms and their origin. This course offers a comprehensive examination of the physical and natural world. At the end of the course, students will enhance their observational and critical thinking skills through the analysis and interpretation of physical and graphical data.

Course Prerequisites:

N/A

Learning Outcomes:

By the end of the course, the student should be able to:

A. A.Understand evolution of significant geologic concepts;

B. B.Comprehend the nature of Earth systems;

C. C.Identify, classify, and understand the origin and development of earth materials including minerals, igneous, sedimentary, and metamorphic rocks;

D. D.Describe modes of internal deformation and geologic structure development;

E. Apply certain reasoning skills, field and laboratory observations and experimentation, and scientific inquiry as a means of studying geologic materials, processes, and concepts.

Course Material:

Charles C. Plummer, Diane H. Carlson, Lisa Hammersley, ***Physical Geology***, 15th Edition, McGraw-Hill, 2016.

Evaluation:

- Homework [40%]
- Mid-term Exam [25%]
- Final Exam [35%]

Description of the Evaluation tasks:

Assignment/ Essay/ ... : During the term, students will be required to finish several evaluation tasks within due date. All the tasks are linked with specific course topics/outcomes and will adequately assess students' competence and learning outcomes. Students are encouraged to meet with instructor about these tasks at any point.

Mid-term/ Final Exams/ Quiz/... : There may be periodic quizzes given at the beginning of lecture sessions; the feedback from these quizzes will monitor the progress of the learners and help to set learning priorities. There will be mid-term exam/ final exam for the course. They are the basic criteria for the evaluation of students' learning outcomes and final grade.

Grading Policy:

Students are supposed to finish each online lecture. Prior to each class, students should finish the required readings. During the class time, students are encouraged to make use of all relevant online course resources and communicate with the instructor. Students' grades are accumulated based on the cumulative evaluations.

Students' letter grade will be assigned according to the following scale:

A+ 90-100	A 85-89	A- 80-84
B+ 77-79	B 73-76	B- 70-72
C+ 67-69	C 63-66	C- 60-62
D+ 57-59	D 53-56	D- 50-52
F < 50		

Academic Integrity:

Students must strictly adhere to the university's academic integrity rule; and all essays, exams and any other form of academic assignments must adhere to these rules. Any form of plagiarism, cheating, or misappropriation of materials will be considered a violation of academic integrity and will be punishable by the university.

Withdrawal from the Course(s):

Students will be able to apply for a transfer or withdrawal within 3 days of the starting date of the course. If a withdrawal is applied for within 3 working days, the tuition fee will be fully refunded. After 3 days, the tuition fee will not be refunded. If a withdrawal is applied for in the first two weeks, it will be recorded as W (Withdraw) on the course transcript. After this initial two-week period, the class will be recorded as F (Fail).

Tentative Schedule:

Week 1

1	Introducing Geology, the Essentials of Plate Tectonics, and Other Important Concepts
2	Atoms, Element, and Minerals
3	Igneous Rocks, the Origin and Evolution of Magma
4	Intrusive Activity
5	Volcanism and Extrusive Rocks **Homework#1**

Week 2	
6	Weathering and Soil
7	Sediment and Sedimentary Rocks
8	Metamorphism
9	Metamorphic Rocks **Homework#2**
10	Time and Geology
Week 3	
11	Mass Wasting
12	Streams and Floods
13	**Mid-term Exam**
14	Groundwater
15	Groundwater (Cont.) **Homework#3**
Week 4	
16	Glaciers and Glaciation
17	Deserts and Glaciation
18	Waves, Beaches and Coasts
19	Coasts
20	Geologic Structures **Homework#4**
Week 5	
21	Earthquakes
22	Earth's Interior and Geophysical Properties
23	The Sea Floor
24	Global Climate Change
25	**Final Exam**