**TEMPLATE FOR COURSE SPECIFICATION**

|  |
| --- |
| HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW |

 **COURSE SPECIFICATION**

|  |
| --- |
| This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification.  |

|  |  |
| --- | --- |
| College of EngineeringUniversity of Baghdad | 1. Teaching Institution |
| Environmental Engineering Department | 2. University Department/Centre |
| Environmental Geology EnE 204This course introduce the followings: Principle of geology science, classification of rock masses, geological data collection, regional geology and geophysical exploration, core logging, graphical presentation of geological data, physical and chemical properties of the rocks. | 3. Course title/code / Description |
| Environmental Engineering Department | 4. Program (s) to which it contributes |
| Course System: There is only one mode of delivery, which is a “Day Program”. The students are full time students, and on campus. They attend full day program in face-to-face mode. The academic year is composed of 15-week regular subjects. | 5. Modes of Attendance offered |
| Semester (second semester) | 6. Semester/Year |
| 75 hrs/ 5 hrs per week | 7. Number of hours tuition (total) |
| April 11, 2014 | 8. Date of production/revision of this specification  |
| **9. Aims of the Course** |
| The aims of the course are: - To understand the branches of Environmental Geology- To understand Rock-forming minerals and igneous, sedimentary, and metamorphic rocks.- Students fulfill understanding of the geophysical properties of rocks and the conditions affect formation of these rocks.- Full knowledge of fundamental aspects of structural geology including interpreting geologic maps, and various types of deformation.- Equip students with an understanding of how geology interacts with major environmental problems and issues facing people and society. |

|  |
| --- |
| **10· Learning Outcomes, Teaching ,Learning and Assessment Method**a-Understand the basic concepts and principles of physical and environmental geology.b- Students will know types of Rocks and their description, classification, texture, etc.c- Understanding the physical properties of the rocks.1. Understand the principles of Weathering.
2. Topographic Map Reading and Interpretation of Landforms Skills.
3. Understand that the geologic environment can impact human health.
4. Preparation of Professional Geological Reports and Maps.
 |
| ***11. Teaching and Learning Methods***1- Lectures.2- Tutorials.3- Homework and Assignments.4- Lab. Experiments.5- Tests and Exams.6- In-Class Questions and Discussions.7- Connection between Theory and Application.8- Extracurricular Activities.9- Seminars.10- In- and Out-Class oral conservations.11- Reports, Presentations, and Posters. |
| ***12. Assessment Methods***1. Examinations, Tests, and Quizzes.2. Extracurricular Activities.3. Student Engagement during Lectures.4. Responses Obtained from Students, Questionnaire about curriculum and faculty member (Instructor) |

|  |
| --- |
| ***13. Grading Policy***1. Quizzes: - There will be two quizzes during the academic semester. The quizzes will count 10% of the total course grade.  2. Exams: - There will be one closed books and notes exam during the academic year, The mid-term exam will count 20% of the total course grade. 3- Laboratory Reports There will be a 10 laboratory report; the whole reports will count 5% of the total course grade5-Laboratory ExamThere will be 3 closed books and notes laboratory exam during the academic year, the mid term laboratory exam will count 5% of the total course exam 6- Final Laboratory ExamThere will be one closed books and notes laboratory exam during the academic year, the final laboratory exam will count 10% of the total course exam. 7. Final Exam:  - The final exam will be comprehensive, closed books and notes,  The final exam will count 50% of the total course grade.  |

|  |
| --- |
| 14. Course Structure |
| Assessment Method | TeachingMethod | Unit/Module or Topic Title | ILOs | Hours | Week |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Principle of Geology science | a, f, g | 2 (Theo.) + 3 (Prac.) | 1 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Principle of Geology science | a, f, g | 2 (Theo.) + 3 (Prac.) | 2 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Principle of Geology science | a, f, g | 2 (Theo.) + 3 (Prac.) | 3 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Classification of rock masses | b, f, g | 2 (Theo.) + 3 (Prac.) | 4 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Classification of rock masses | b, f, g | 2 (Theo.) + 3 (Prac.) | 5 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Classification of rock masses | b, f, g | 2 (Theo.) + 3 (Prac.) | 6 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Geological data collection | c, f, g | 2 (Theo.) + 3 (Prac.) | 7 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Geological data collection | c, f, g | 2 (Theo.) + 3 (Prac.) | 8 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Geological data collection | c, f, g | 2 (Theo.) + 3 (Prac.) | 9 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Regional geology and geophysical exploration | c, d, f, g | 2 (Theo.) + 3 (Prac.) | 10 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Regional geology and geophysical exploration | c, d, f, g | 2 (Theo.) + 3 (Prac.) | 11 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Core logging | f, g | 2 (Theo.) + 3 (Prac.) | 12 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Graphical presentation of geological data, physical and chemical properties of the rocks. | e, f, g | 2 (Theo.) + 3 (Prac.) | 13 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Graphical presentation of geological data, physical and chemical properties of the rocks. | e, f, g | 2 (Theo.) + 3 (Prac.) | 14 |
| 1 – 4 of article (12) | 1-11 ofarticle (11) | Graphical presentation of geological data, physical and chemical properties of the rocks. | e, f, g | 2 (Theo.) + 3 (Prac.) | 15 |

|  |
| --- |
| 15. Infrastructure |
| Text Book:Maruthesha Reddy M.T., 2013, A Textbook of Applied Engineering Geology, New Age International Publishers. . References1. Cliffs, N.J., 1968, Introduction to Geology: Physical and Historical, Prentice-Hall, Englewood,

 1. Frank, T., 1991, Geology, Treasure Chest Books Publisher.
2. Lyell, C., 1990, Principles of Geology, University of Chicago Press.
3. Dapples, E. C., 1959, Geology for Science and Engineering, New York, John Wiley and Sons, INC.,
4. Gilluly, J. A. C., 1968, Principles of Geology, 3rd ed. San Francisco, W.H. Freeman,
 | Required reading:· CORE TEXTS· COURSE MATERIALS· OTHER |
| Laboratory experiments in the (Geology Lab) in the Petroleum Engineering Department.Available websites related to the subject.Extracurricular activities. | Special requirements (include for example workshops, periodicals, IT software, websites) |
| Field and scientific visits.Seminars in the Department. | Community-based facilities(include for example, guestLectures , internship , field studies) |

|  |
| --- |
| 16. Admissions |
| EnE 101, EnE 102, EnE 103, EnE 104 | Pre-requisites |
| / | Minimum number of students |
| 25 | Maximum number of students |
| **Instructor: Assistant Prof. Dr. Shahlaa Esmail Ebrahim**Water Pollution and Hazardous Waste ManagementEnvironmental Engineering DepartmentCollege of EngineeringUniversity of BaghdadCell phone: 009647901798098E-mail: shahlaa.ebrahim@fulbrightmail.orgOr shahlaaaga@gmail.com | 17. Course Instructor |