MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

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| **Module Information****معلومات المادة الدراسية** |
| **Module Title** | Field Geology | **Module Delivery** |
| **Module Type** | Core | * **☒ Theory**
* **☐ Lecture**
* **☒ Lab**
* **☒ Tutorial**
* **☒ Practical**
* **☒ Seminar**
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| **Module Code** | RGC3206 |
| **ECTS Credits**  | 5 |
| **SWL (hr/sem)** | 125 |
| **Module Level** | UGI | **Semester of Delivery** | Five |
| **Administering Department** | Remote Sensing |  **College** | Remote Sensing & Geophysics College |
| **Module Leader** | Ahmed Abbas Hasan  |  **e-mail** | ahmad.a.h@kus.edu.iq  |
| **Module Leader’s Acad. Title** | Assistant Professor | **Module Leader’s Qualification** |  |
| **Module Tutor** |  |  **e-mail** |  |
| **Peer Reviewer Name** |  |  **e-mail** |  |
| **Scientific Committee Approval Date** | 01/06/2023 | **Version Number** | 1.0 |

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| **Relation with other Modules****العلاقة مع المواد الدراسية الأخرى** |
| **Prerequisite module** | None | **Semester** |  |
| **Co-requisites module** | None | **Semester** |  |

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| **Module Aims, Learning Outcomes and Indicative Contents****أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية** |
|  **Module Aims****أهداف المادة الدراسية** | On completion of this module students should be able to:1. Read and interpret topographic and geological maps.2. Visualize the geological structure in three dimensions.3. Use a field notebook to keep an accurate record of field observations and measurements.4. Recognize and identify selected rock types and minerals and understand their mode of formation, economic importance and practical application.5. Understand selected aspects of the geological history of Ireland.6. Understand the evolution of the Irish landscape.7. Understand how to construcy a geological map |
| **Module Learning Outcomes****مخرجات التعلم للمادة الدراسية** | On completion of this module students should be able to:1. Read and interpret topographic and geological maps.2. Visualize the geological structure in three dimensions.3. Use a field notebook to keep an accurate record of field observations and measurements.4. Recognize and identify selected rock types and minerals and understand their mode of formation, economic importance and practical application.5. Understand selected aspects of the geological history of Ireland.6. Understand the evolution of the Irish landscape.7. Understand how to construcy a geological map |
| **Indicative Contents****المحتويات الإرشادية** | The main aim of field geology is to observe and collect data from rocks and/or unconsolidated deposits, which will further our understanding of the physical, chemical and biological processes that have occurred over geological time. Many of the basic observational principles used in field geology have not changed for hundreds of years, although the interpretation of the data, the scale of resolution and some of the equipment has advanced greatly. |

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| **Learning and Teaching Strategies****استراتيجيات التعلم والتعليم** |
| **Strategies** | Fieldwork involves making careful observations and measurements in the field and the collection and precise recording of the position of samples for laboratory analysis. The very act of collecting field data often raises questions about processes on Earth, which had perhaps not previously been envisaged. Furthermore, during fieldwork it is usual to initiate, or to build on, constructing and testing different hypotheses and interpretations based on the observations; this iterative process will help to determine the essential data and samples to collect. |

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| **Student Workload (SWL)****الحمل الدراسي للطالب** |
| **Structured SWL (h/sem)****الحمل الدراسي المنتظم للطالب خلال الفصل** | 114 | **Structured SWL (h/w)****الحمل الدراسي المنتظم للطالب أسبوعيا** |  |
| **Unstructured SWL (h/sem)****الحمل الدراسي غير المنتظم للطالب خلال الفصل** | 11 | **Unstructured SWL (h/w)****الحمل الدراسي غير المنتظم للطالب أسبوعيا** |  |
| **Total SWL (h/sem)****الحمل الدراسي الكلي للطالب خلال الفصل** | 125 |

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| **Module Evaluation****تقييم المادة الدراسية** |
| **As** | **Time/Number** | **Weight (Marks)** | **Week Due** | **Relevant Learning Outcome** |
| **Formative assessment** | **Quizzes** | 2 | 10% (10) |  |  |
| **Assignments** | 2 | 10% (10) |  |  |
| **Projects / Lab.** | 1 | 10% (10) |  |  |
| **Report** | 1 | 10% (10) |  |  |
| **Summative assessment** | **Midterm Exam** | 2hr | 10% (10) |  |  |
| **Final Exam** | 2hr | 50% (50) |  |  |
| **Total assessment** | 100% (100 Marks) |  |  |

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| **Delivery Plan (Weekly Syllabus)****المنهاج الاسبوعي النظري** |
| **Week**  | **Material Covered** |
| **Week 1** | Course vocabulary or content:The most commonly used field equipment and outlines field safety procedures. |
| **Week 2** | Explores the general objectives of fieldwork and how to make a start. |
| **Week 3** | Covering the necessary skills for the collection of paleontological. |
| **Week 4** | Covering the necessary skills for the collection of sedimentological structures. |
| **Week 5** | Covering the necessary skills for the collection of igneous rocks |
| **Week 6** | Covering the necessary skills for the collection of metamorphic rocks |
| **Week 7** | **Mid-term Exam**  |
| **Week 8** | Covering the necessary skills for the collection of geological structures. |
| **Week 9** | Recording of geological field data. |
| **Week 10** | Making a geological map. |
| **Week 11** | Uses the field techniques covered in the previous five chapters to introduce geological mapping, where it is usually necessary to deal with a range of rock types and different kinds of exposure |
| **Week 12** | Recording numerical data and use of instruments in the field. |
| **Week 13** | Photography  |
| **Week 14** | Sampling |
| **Week 15** | The production of a field notebook (hard copy or electronic). |
| **Week 16** | **Preparatory week before the final Exam** |

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| **Delivery Plan (Weekly Lab. Syllabus)****المنهاج الاسبوعي للمختبر** |
| **Week**  | **Material Covered** |
| **Week 1** | Magnetic declination |
| **Week 2** | Orientation of a dipping p lane |
| **Week 3** | Determination of the orientation of a dipping p lane by the contact method |
| **Week 4** | Determination of the orientation of a dipping p lane using the clinometer hinge of the Brunton – type compass - clinometer |
| **Week 5** | Orientation of a linear feature |
| **Week 6** | Triangulation: Determining location using a compass |
| **Week 7** | Global positioning systems and altimeters |

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| **Learning and Teaching Resources****مصادر التعلم والتدريس** |
|  | **Text** | **Available in the Library?** |
| **Required Texts** | 1- Coe, Angela L. 2010 , GEOLOGICAL FIELD TECHNIQUES. | Yes  |
| **Recommended Texts** | 2- 3- Bates, D. E. B., and Kirkaldy, J. F., 1977. Field Geology. New York: Arco, 215p. | No  |
| **Websites** |  |

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|  **Grading Scheme****مخطط الدرجات** |
| **Group** | **Grade** | التقدير | **Marks (%)** | **Definition** |
| **Success Group****(50 - 100)** | **A –** Excellent | **امتياز** | 90 - 100 | Outstanding Performance |
| **B -** Very Good | **جيد جدا**  | 80 - 89 | Above average with some errors |
| **C –** Good | **جيد** | 70 - 79 | Sound work with notable errors |
| **D –** Satisfactory | **متوسط**  | 60 - 69 | Fair but with major shortcomings |
| **E –** Sufficient | **مقبول**  | 50 - 59 | Work meets minimum criteria |
| **Fail Group****(0 – 49)** | **FX –** Fail | **راسب (قيد المعالجة)** | (45-49) | More work required but credit awarded |
| **F –** Fail | **راسب** | (0-44) | Considerable amount of work required |
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| **Note:** Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above. |