MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

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| **Module Information**  **معلومات المادة الدراسية** | | | | | | | | |
| **Module Title** | Hydrology | | | | | **Module Delivery** | | |
| **Module Type** | Core | | | | | * **☒ Theory** * **☒ Lecture** * **☒ Lab** * **☐ Tutorial** * **☐ Practical** * **☐ Seminar** | | |
| **Module Code** | GEO32024 | | | | |
| **ECTS Credits** | 6 | | | | |
| **SWL (hr/sem)** | 125 | | | | |
| **Module Level** | | 2nd | **Semester of Delivery** | | | | | 4th |
| **Administering Department** | | Geophysics | **College** | | Remote sensing & Geophysics | | | |
| **Module Leader** | Shahad Adil Fadhel | | **e-mail** | | [Shahad.adil.fadhel@kus.edu.iq](mailto:Shahad.adil.fadhel@kus.edu.iq) | | | |
| **Module Leader’s Acad. Title** | | Lectural | **Module Leader’s Qualification** | | | | | MSc. |
| **Module Tutor** |  | | **e-mail** |  | | | | |
| **Peer Reviewer Name** | |  | **e-mail** |  | | | | |
| **Scientific Committee Approval Date** | | 18/6/2023 | **Version Number** | | | |  | |

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| **Relation with other Modules**  **العلاقة مع المواد الدراسية الأخرى** | | | |
| **Prerequisite module** | GEOPC101 | **Semester** | One |
| **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** | 1. Learn what the fundamental of geomorphology means. 2. Learn the physical and chemical weathering 3. Learn the landforms of river system and fluvial erosional. 4. Learn the landforms of Aeolian processes. |
| **Module Learning Outcomes**  **مخرجات التعلم للمادة الدراسية** | 1. The student distinguishes between the landforms of river system and fluvial erosional and Aeolian processes. 2. The students learn how to distinguish the landforms on the surface of earth. 3. Learn how to find the landforms from the geomorphologic maps. |
| **Indicative Contents**  **المحتويات الإرشادية** |  |

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| **Learning and Teaching Strategies**  **استراتيجيات التعلم والتعليم** | |
| **Strategies** | The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials, and by considering types of simple experiments involving some interesting. |

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| **Student Workload (SWL)**  **الحمل الدراسي للطالب** | | | |
| **Structured SWL (h/sem)**  **الحمل الدراسي المنتظم للطالب خلال الفصل** | 86 |  |  |
| **Unstructured SWL (h/sem)**  **الحمل الدراسي غير المنتظم للطالب خلال الفصل** | 39 |  |  |
| **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** | 2 hr | 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** | Introduction to the Hydrology |
| **Week 2** | The hydrological cycle |
| **Week 3** | Runoff |
| **Week 4** | Global water balance |
| **Week 5** | River system |
| **Week 6** | Drainage basins |
| **Week 7** | Discharge and hydrographs |
| **Week 8** | River processes |
| **Week 9** | Ground Water |
| **Week 10** | Distribution of ground water |
| **Week 11** | Where ground water occurs |
| **Week 12** | Types of aquifers |
| **Week 13** | Aquifer properties |
| **Week 14** | Water table and piezometric surface |
| **Week 15** | Movement of ground water |
| **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** | Climate Elements |
| **Week 2** | Potential Evapotranspiration (PE) |
| **Week 3** | Classification of the climate |
| **Week 4** | Ground Water Flow Nets |
| **Week 5** | Quality of Water |
| **Week 6** | Types of water |
| **Week 7** | Classification of water |

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| **Learning and Teaching Resources**  **مصادر التعلم والتدريس** | | |
|  | **Text** | **Available in the Library?** |
| **Required Texts** | Holden , 2014. Water resources  Wang, Lawrenec k., Yang, Chih, T. and Wang, Mu-Hao S., 2016, Advances in Water Resources Management. |  |
| **Recommended Texts** |  |  |
| **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. | | | | |