MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

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| **Module Information****معلومات المادة الدراسية** |
| **Module Title** | Stratigraphy | **Module Delivery** |
| **Module Type** | Core | * **☒ Theory**
* **☒ Lecture**
* **☒ Lab**
* **☐ Tutorial**
* **☐ Practical**
* **☐ Seminar**
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| **Module Code** | RGC2114 |
| **ECTS Credits**  | 6 |
| **SWL (hr/sem)** | 150 |
| **Module Level** | II | **Semester of Delivery** | Three |
| **Administering Department** | Geophysics |  **College** | College of Geophysics and Remote Sensing |
| **Module Leader** | Dr. Mohammed Sattam |  **e-mail** | moh.sattam@kus.edu.iq  |
| **Module Leader’s Acad. Title** | Assistant Professor  | **Module Leader’s Qualification** | Stratigraphy& Paleontology |
| **Module Tutor** | Nul |  **e-mail** |  |
| **Peer Reviewer Name** | Null |  **e-mail** |  |
| **Scientific Committee Approval Date** | 16 / 6 / 2023 | **Version Number** | 2 |

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| **Relation with other Modules****العلاقة مع المواد الدراسية الأخرى** |
| **Prerequisite module** | General Geology | **Semester** | One |
| **Co-requisites module** | Null | **Semester** | - |

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| **Module Aims, Learning Outcomes and Indicative Contents****أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية** |
|  **Module Aims****أهداف المادة الدراسية** | A Stratigraphy Module encompasses the study of rock layers and their arrangement in time. It covers principles and methods used to analyze and interpret sedimentary sequences, including facies analysis, biostratigraphy, and lithostratigraphy. Topics include dating techniques, paleoenvironmental reconstructions, and the correlation of rock units across different regions, providing a comprehensive understanding of Earth's geological history |
| **Module Learning Outcomes****مخرجات التعلم للمادة الدراسية** | * Understanding the importance of Stratigraphy as one of the pure geological sciences .

 - Develop an understanding of how to identify the sediments and beds theoretically and practically. * Identify the types of beds and interpretations of their distribution.
* Understanding of how to identify the formation in the field .
* Evaluate whether the resources or reserves attributed to a completed interpretation map are under or over estimated.
* Determine the rank of stratigraphic units .
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| **Indicative Contents****المحتويات الإرشادية** | Through explanations and applications, using display screens, and presenting scientific films that explain the reality of what happens in nature.  |

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| **Learning and Teaching Strategies****استراتيجيات التعلم والتعليم** |
| **Strategies** | Class Lecture Laboratory Practical Training Seminar  |

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| **Student Workload (SWL)****الحمل الدراسي للطالب** |
| **Structured SWL (h/sem)****الحمل الدراسي المنتظم للطالب خلال الفصل** | 114 |  |  |
| **Unstructured SWL (h/sem)****الحمل الدراسي غير المنتظم للطالب خلال الفصل** | 36 |  |  |
| **Total SWL (h/sem)****الحمل الدراسي الكلي للطالب خلال الفصل** | 150 |

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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** | Stratigraphy "Introduction and Identification "  |
| **Week 2** | Principles of Stratigraphy |
| **Week 3** | Stratigraphic Classification |
| **Week 4** | Stratigraphic Units |
| **Week 5** | Nomenclature and units |
| **Week 6** | Defining a Stratigraphic Units, Types of Stratigraphic Unit |
| **Week 7** | Information are required for Stratigraphic units |
| **Week 8** | Type locality |
| **Week 9** | Midterm exam |
| **Week 10** | Stratigraphic Terminology "Dual Stratigraphic Classification" |
| **Week 11** | Formation Representative |
| **Week 12** | Unconformities |
| **Week 13** | Sedimentary Facies |
| **Week 14** | Facies Distribution |
| **Week 15** | Stratigraphic Sections and Correlation  |
| **Week 16** | Second Midterm Exam |

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| **Delivery Plan (Weekly Lab. Syllabus)****المنهاج الاسبوعي للمختبر** |
| **Week**  | **Material Covered** |
| **Week 1** | Geological Time Scale |
| **Week 2** | Time events arrangements |
| **Week 3** | Lithology detection outcrop |
| **Week 4** | Unconformities |
| **Week 5** | Correlation  |
| **Week 6** | Lithological Correlation |
| **Week 7** | Time Correlation |

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| **Learning and Teaching Resources****مصادر التعلم والتدريس** |
|  | **Text** | **Available in the Library?** |
| **Required Texts** | Nichols, G., 2009. Sedimentology and Stratigraphy. This edition , United Kingdom,419 pp . | Y |
| **Recommended Texts** | * Mark J. Osborne, Richard E. Swarbr. “Mechanisms for Generating Overpressure in Sedimentary Basins: A Reevaluation: Reply.”
 | y |
| **Websites** | https://www.sepmstrata.org/ |

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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. |