MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية للاقسام الهندسية

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| **Module Information****معلومات المادة الدراسية** |
| **Module Title** | ENGINEERING DRAWING | **Module Delivery** |
| **Module Type** | Support or related learning activity | * **☐ Theory**
* **☐ Lecture**
* **☒ Lab**
* **☒ Tutorial**
* **☐ Practical**
* **☐ Seminar**
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| **Module Code** | ENGD 101 |
| **ECTS Credits**  | 5 |
| **SWL (hr/sem)** | 125 |
| **Module Level** | UGx11 1 | **Semester of Delivery** | 1 |
| **Administering Department** | Type Dept. Code |  **College** |  Type College Code |
| **Module Leader** | Name: Ass.Lec. Mustafa habeeb |  **e-mail** | E-mail: mustafa.ha@uowa.edu.iq |
| **Module Leader’s Acad. Title** |   | **Module Leader’s Qualification** |  |
| **Module Tutor** | Name (if available) |  **e-mail** | E-mail |
| **Peer Reviewer Name** | Name |  **e-mail** | 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** | 1. Expanding the mental ability to imagine geometric shapes.
2. Controlling the practical aspects of the course through laboratory sessions.
3. Introducing students to engineering designs and their importance in manufacturing products
4. To familiarize the students with the basics of Engineering drawing. To enable the students, understand the elements of 3D visualization.
5. Introduce students to the techniques of technical graphics so that the design ideas can be communicated and produced.
6. Introduce students to visual and written standard requirements related to the industry.
7. To understand and interpret any form of engineering drawings.
8. To draw an object from different perspective views.
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| **Module Learning Outcomes****مخرجات التعلم للمادة الدراسية** | On completion of this course students will be able to:1. The ability to read and analyze design maps
2. The ability to represent engineering designs and transfer them to reality
3. Students are able to understand the description any ghraphics design>
4. Learn and familiarize with common drawing notations.
5. Familiarize with development and Intersections of basic geometric models.
6. Students will be able to produce working drawings according to the industry requirement.
7. Students will be able to draw the needed views of assembly drawings showing all the details.
8. Students will be able to apply technical graphic principles to many engineering applications.
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| **Indicative Contents****المحتويات الإرشادية** | Indicative content includes the following.Part A – introduction to graphics styles Lines, font, types of papers, tools. Part B – Drawing techniquesIdentify Drawing Sheets, sketching by hand, Sketching by tools.Part C – Engineering Operation and 2D Drawing Applications. Part D – Projection's techniques and Orthographic Projection Applications.Part E – 3D drawing styles and practices. Views and Isometric Drawing |

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| **Learning and Teaching Strategies****استراتيجيات التعلم والتعليم** |
| **Strategies** | 1. Speed and accuracy of decision making.
2. Provision of detailed explanation in class on the topic.
3. Provision of adequate illustration on the board with the aid of a projector.
4. Making lecturing periods interactive and complimentary it with practical work.
5. Educational websites
6. Giving the students class work during the lecture period.
7. Giving take-home assignments at the end of each lecture.
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| **Student Workload (SWL)****الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا** |
| **Structured SWL (h/sem)****الحمل الدراسي المنتظم للطالب خلال الفصل** | 64 | **Structured SWL (h/w)****الحمل الدراسي المنتظم للطالب أسبوعيا** | 4 |
| **Unstructured SWL (h/sem)****الحمل الدراسي غير المنتظم للطالب خلال الفصل** | 61 | **Unstructured SWL (h/w)****الحمل الدراسي غير المنتظم للطالب أسبوعيا** | 4 |
| **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** | 4 | 10% (10) | 3, 5,7,11 | LO #3, 5, 7 and 11 |
| **Assignments/Home** | 14 | 10% (10) | Continuous | All |
| **Projects /lab** | 15 | 10% (10) | Continuous | All |
| **Report** |  |  |  |  |
| **Summative assessment** | **Midterm Exam** | 3 hr | 20% (20) | 7-8 | LO # 1-7 |
| **Final Exam** | 3hr | 50% (50) | 16 | All |
| **Total assessment** | 100% (100 Marks) |  |  |

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| **Delivery Plan (Weekly Syllabus)****المنهاج الاسبوعي النظري** |
| **Week**  | **Material Covered** |  |
| **Week 1** | Introduction | مقدمة عن الرسم الهندسي والأدوات الواجب توفرها |
| **Week 2** | lines, lettering, geometric shapes and their features | أنواع الخطوط، الاشكال الهندسية ومميزاتها |
| **Week 3** | Sheet preparation, drawing starting | تهيئة لوحة الرسم، كيفية البدء بالرسم الهندسي |
| **Week 4** | Engineering operations 1 | العمليات الهندسية -1 |
| **Week 5** | Engineering operations2 | العمليات الهندسية -2 |
| **Week 6** | Engineering operations 3 | العمليات الهندسية -3 |
| **Week 7** | Engineering operations exercises | تمارين جامعة للعمليات الهندسية |
| **Week 8** | Projection Theory | نظرية الاسقاط |
| **Week 9** | Orthographic Projection 1 | المساقط |
| **Week 10** | Orthographic Projection 2 | المساقط -2 |
| **Week 11** | Dimensioning | الابعاد |
| **Week 12** | Class Exercises | تمارين إضافية |
| **Week 13** | Sectional views 1 | المساقط المقطوعة -1 |
| **Week 14** | Sectional views 2 | المساقط المقطوعة -2 |
| **Week 15** | Isometric Drawing | الرسم المجسم |
| **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** |  |
| **Week 2** |  |
| **Week 3** |  |
| **Week 4** |  |
| **Week 5** |  |
| **Week 6** |  |
| **Week 7** |  |

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| **Learning and Teaching Resources****مصادر التعلم والتدريس** |
|  | **Text** | **Available in the Library?** |
| **Required Texts** | الرسم الهندسي للمؤلف ( عبد الرسول الخفاف ) | Yes |
| **Recommended Texts** |  | No |
| **Websites** | Internet 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. |