



Ministry of Higher Education and
Scientific Research - Iraq
University of AL-MUSTAQBAL
College of Sciences
Department of Biology



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | |
|------------------------------------|-------------------------------------|----------------------|---|
| معلومات المادة الدراسية | | | |
| Module Title | Plant physiology | | Module Delivery |
| Module Type | Basic | | <input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar |
| Module Code | UOMU0305235 | | |
| ECTS Credits | 4 | | |
| SWL (hr/sem) | 100 | | |
| Module Level | 1 | Semester of Delivery | |
| Administering Department | Type Dept. Code | College | Type College Code |
| Module Leader | e-mail | | |
| Module Leader's Acad. Title | Module Leader's Qualification Ph.D. | | |
| Module Tutor | Name (if available) | e-mail | E-mail |
| Peer Reviewer Name | Name | e-mail | E-mail |
| Scientific Committee Approval Date | 14/06/2023 | Version Number | 1.0 |

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

| | | | | |
|----------------------|------|--|----------|--|
| Prerequisite module | None | | Semester | |
| Co-requisites module | None | | Semester | |

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الارشادية

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|--|---|
| Module Aims أهداف المادة الدراسية | <p>This is the principles of osinization, and then the osinization process, and the osinization process, and the evolution of the osinization process</p> <p>Likewise, this is a mixture of real osprey in melted sauerkraut and dried osprey in Al-Sabtaz Al-Dolukh, Al-Amalmakh, Al-Tazf, Al-Awsin Al-Awsin Al-Tammouk, Al-Tammouk</p> <p>The osprey was achieved in the late jabot, and the amalkh and waqif were applied to it.</p> |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | <ol style="list-style-type: none"> 1- Realize the osprey, get it and go. 2- The roots of the osprey trunk and its purification in the brackish brow: The osprey trunk in the middle The stump and the middle 3- The ospenes achieved in the middle ages. 4- Achieve ospenes in the spicules of the spur without concentrating on the spicules. 5- The osprey was achieved in the abscessed perfume and the ooze. 6- Ospen achieved in altars, altars, and marshy butter. |
| Indicative Contents المحتويات الارشادية | <p>Indicative content includes the following.</p> <p><u>Part A - Circuit Theory</u></p> <p>DC circuits – Current and voltage definitions, Passive sign convention and circuit elements, Combining resistive elements in series and parallel. Kirchhoff's laws and Ohm's law. Anatomy of a circuit, Network reduction, Introduction to mesh and nodal analysis. [15 hrs]</p> <p>AC circuits I – Time dependent signals, average and RMS values. Capacitance and inductance, energy storage elements, simple AC steady-state sinusoidal analysis. [15 hrs]</p> <p>AC Circuits II - Phasor diagrams, definition of complex impedance, AC circuit analysis with complex numbers. [10 hrs]</p> |

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| | <p>RL, RC and RLC circuits - Frequency response of RLC circuits, simple filter and band-pass circuits, resonance and Q-factor, use of Bode plots, use of differential equations and their solutions. Time response (natural and step responses). Introduction to second order circuits. [15 hrs]</p> <p>Revision problem classes [6 hrs]</p> <p><u>Part B - Analogue Electronics</u></p> <p>Fundamentals</p> <p>Resistive networks, voltage and current sources, Thevenin and Norton equivalent circuits, current and voltage division, input resistance, output resistance, coupling and decoupling capacitors, maximum power transfer, RMS and power dissipation, current limiting and over voltage protection. [15 hrs]</p> <p>Components and active devices – Components vs elements and circuit modeling, real and ideal elements. Introduction to sensors and actuators, self-generating vs modulating type sensors, simple circuit interfacing. [7 hrs]</p> <p>Diodes and Diode circuits – Diode characteristics and equations, ideal vs real. Signal conditioning, clamping and clipping, rectification and peak detection, photodiodes, LEDs, Zener diodes, voltage stabilization, voltage reference, power supplies. [15 hrs]</p> |
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Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

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|------------|---|
| Strategies | Type something like: 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 type of simple experiments involving some sampling activities that are interesting to the students. |
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Student Workload (SWL)

الحمل الدراسي للطالب

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|---|-----|--|---|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل | 58 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا | 3 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل | 42 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا | 1 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 100 | | |

Module Evaluation

تقييم المادة الدراسية

| | | Time/Number | Weight (Marks) | Week Due | Relevant Learning Outcome |
|----------------------|-----------------|------------------|----------------|------------|---------------------------|
| Formative assessment | Quizzes | 2 | 10% (10) | 5, 10 | LO #1, 2, 10 and 11 |
| | Assignments | 2 | 10% (10) | 2, 12 | LO # 3, 4, 6 and 7 |
| | Projects / Lab. | 1 | 10% (10) | Continuous | |
| | Report | 1 | 10% (10) | 13 | LO # 5, 8 and 10 |
| Summative assessment | Midterm Exam | 2 hr | 10% (10) | 7 | LO # 1-7 |
| | Final Exam | 2hr | 50% (50) | 16 | All |
| Total assessment | | 100% (100 Marks) | | | |

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

| | Material Covered |
|---------------|--|
| Week 1 | Human insanity definition and objectives |
| Week 2 | The roots of human insanity and its development in history Al-Bishri: Human Foolishness in the Ancient Ages |

| | |
|----------------|---|
| Week 3 | Human rights in ancient civilizations in particular Mesopotamia civilization |
| Week 4 | Human foolishness in the divine laws with emphasis On human rights in Islam |
| Week 5 | Foolishness of man in the Middle Ages: Foolishness Man in doctrines, schools and theories Political/human insanity in companies and their advertisements And revolutions and constitutions |
| Week 6 | the first exam |
| Week 7 | Human insanity in contemporary and modern history: State recognition of human folly since the war The First World War and the League of Nations |
| Week 8 | The painful acknowledgment of human insanity/indifferentism European Human Foolishness 0591 Altvla The American Society for Human Folly 0 |
| Week 9 | Non-governmental organizations and human rights (Committee International Red Cross, Amnesty International, Human Rights Debtor Organization |
| Week 10 | National human rights organizations |
| Week 11 | Relationships between human rights and public freedoms. |
| Week 12 | Revelation is the world of human folly |
| Week 13 | Islamic conventions and national constitutions for Hamouk Human |
| Week 14 | collective human rights |
| Week 15 | group human rights |

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

| | Material Covered |
|---------------|--|
| Week 1 | National human rights organizations |
| Week 2 | Relationships between human rights and public freedoms. |
| Week 3 | Revelation is the world of human folly |
| Week 4 | Islamic conventions and national constitutions for Hamouk Human |
| Week 5 | collective human rights |
| Week 6 | Human insanity definition and objectives |
| Week 7 | The roots of human insanity and its development in history Al-Bishri: Human Foolishness in the Ancient Ages and middle |

Learning and Teaching Resources

مصادر التعلم والتدريس

| | Text | Available in the Library? |
|--------------------------|---|---------------------------|
| Required Texts | Fundamentals of Electric Circuits, C.K. Alexander and M.N.O Sadiku, McGraw-Hill Education | Yes |
| Recommended Texts | DC Electrical Circuit Analysis: A Practical Approach Copyright Year: 2020, dissidents. | No |
| Websites | https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering | |

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 |
| Fail Group (0 - 49) | 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 |
| | | | | |

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.

