

**Ministry of Higher Education and Scientific Research
University of Diyala
College of Science
Department of Biology**



**MODULE DESCRIPTION FORM
FIRST CYCLE
LEVEL ONE**

**وصف المقرر لمسار بولونيا
المرحلة الاولى
الدورة الاولى**

2024/2025

Semester One

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | |
|------------------------------------|------------------------|-------------------------------|---|
| معلومات المادة الدراسية | | | |
| Module Title | General Zoology | | Module Delivery |
| Module Type | Core | | <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 | Bio-1101 | | |
| ECTS Credits | 6 | | |
| SWL (hr/sem) | 150 | | |
| Module Level | 1 | Semester of Delivery | 1 |
| Administering Department | Department of Biology | College | College of Sciences |
| Module Leader | Ragad Ibrahim Ahmed | e-mail | raghadibrahim@uodiyala.edu.iq |
| Module Leader's Acad. Title | Assistant Professor | 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 | 1/11/2023 | 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 الإرشادية | |
| Module Objectives أهداف المادة الدراسية | 1. Understand the difference between science and non-science. 2. Be familiar with the specialized vocabulary of zoology. 3. Understand the relationship between animal structure and function. 4. Know the structural and functional characteristics of major animal groups, and be familiar with current hypotheses concerning how they evolved. |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | 1. Define general zoology. 2. Studying the relationship between zoology and other sciences 3. An introduction to basic concepts in biology through study of the major lineages of invertebrate and vertebrate animals, with emphasis on the structure, and function of organ systems in an evolutionary context 4. Topics covered will include basic cell structure and function, development, systematics, and evolution . 5. Studying the classification or taxonomy of zoology. 6. The laboratory will focus on observation of structural-functional relationships of living and preserved representatives of the major animal phyla. |
| Indicative Contents المحتويات الإرشادية | Cognitive goals: 1. At the first level, knowledge development is to develop the student's ability to recall what he learned from zoology. |

Semester One

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| | <p>2. The second level: improving comprehension, developing the ability to interpret.</p> <p>3. Developing application capabilities in detecting classification of zoology</p> <p>4. The fourth level: giving the student the ability to analyze</p> <p>5. The fifth level is to develop the student's ability to integrate ideas (synthesis).</p> <p>6. The sixth level of evaluation is to give a judgment on the value of the material.</p> <p>b- Marathi goals: To improve the student's ability to observe, to learn imitation and simulation, to learn the method of experimentation. B - The soft skills objectives of the course. B1 - knowledge skills – remembering. B2 - Memory and analysis skills. B3 - Use and development skills.</p> |
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Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

| | |
|------------|--|
| Strategies | <p>1. Lecture method, use of the interactive whiteboard, presentation, and use of explanatory films - explanation and clarification</p> <p>2. Asking students a set of questions about animal classification, phylum, family, order, and class during the lectures, such as what, how, when and why for specific topics.</p> |
|------------|--|

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ 15 اسبوعا

| | | | |
|---|-----|--|-----|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل | 78 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا | 5.2 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل | 72 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا | 4.8 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 150 | | |

Module Evaluation

تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)**المنهاج الاسبوعي النظري**

| | Material Covered |
|---------|---|
| Week 1 | INTRODUCTION : define of general zoology and its relationship with other sciences |
| Week 2 | Characteristics of living things |
| Week 3 | Prokaryotic and eukaryotic cells |
| Week 4 | Cell cycle, Mitosis |
| Week 5 | Animal cells and animal tissues |
| Week 6 | Taxonomy and Classification of Animals |
| Week 7 | Mid-term Exam |
| Week 8 | Animal Phyla, 1. The Protozoa |
| Week 9 | 2. The Parazoa |
| Week 10 | 3. The Radiata |
| Week 11 | 4. The Acoelomates |
| Week 12 | 5. The Pseudocoelomates |
| Week 13 | 6. The Coelomates: Protostomes |
| Week 14 | 7. The Coelomates: Deuterostome |
| Week 15 | Preparatory week before the final Exam |

Delivery Plan (Weekly Lab. Syllabus)**المنهاج الاسبوعي للمختبر**

| | Material Covered |
|---------|--|
| Week 1 | Lab 1 : Light Microscope |
| Week 2 | Lab 2: Animal cell : Animal cell structure |
| Week 3 | Lab 3: Animal Cell: Animal Cell shape. |
| Week 4 | Lab 4: Animal cell :Living Components and Non-living Components in animal cell |
| Week 5 | Lab 5: Cell Division |
| Week 6 | Lab 6: Animal Tissues :Epithelial tissue |
| Week 7 | Lab 7: Animal Tissues :Connective tissue |
| Week 8 | Lab 8: Animal Tissues :Muscle tissue |
| Week 9 | Lab 9: Animal Tissues :Nervous tissue |
| Week 10 | Lab 10: Classification :Scientific Name and Common Name |
| Week 11 | Lab 11: Classification The Groups of Animal Kingdom (1) |
| Week 12 | Lab 12: Classification The Groups of Animal Kingdom (2) |
| Week 13 | Lab 13: Classification The Groups of Animal Kingdom (3) |

Learning and Teaching Resources**مصادر التعلم والتدريس**

| | Text | Available in the Library? |
|-------------------|--|---------------------------|
| Required Texts | Huxley, T. H. (2022). On the study of zoology. DigiCat. Nicholson, H. A. (2022). A manual of zoology. BoD–Books on Demand. | Yes |
| Recommended Texts | Honegger, T. (2022). Zoology. | No |
| Websites | https://alison.com/tag/biology https://www.brianbrookshire.com/online-biology-curriculum/ | |

Grading Scheme

Semester One

| 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 |
| | | | | |
| <p>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.</p> | | | | |

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | |
|------------------------------------|-----------------------------|-------------------------------|--|
| معلومات المادة الدراسية | | | |
| Module Title | Analytical Chemistry | | Module Delivery |
| Module Type | Core | | <input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input checked="" type="checkbox"/> Seminar |
| Module Code | Bio-1102 | | |
| ECTS Credits | 6 | | |
| SWL (hr/sem) | 150 | | |
| Module Level | 1 | Semester of Delivery | |
| Administering Department | Department of Biology | College | Type College Code |
| Module Leader | | | e-mail |
| Module Leader's Acad. Title | Lecturer | 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 | 1/11/2023 | Version Number | 1.0 |

| Relation with other Modules | | | |
|-----------------------------------|-------------------|----------|---|
| العلاقة مع المواد الدراسية الأخرى | | | |
| Prerequisite module | None | Semester | |
| Co-requisites module | Organic Chemistry | Semester | 2 |

| Module Aims, Learning Outcomes and Indicative Contents | |
|--|---|
| أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية | |
| Module Objectives أهداف المادة الدراسية | <p>The primary objective of this course is to acquire basic concepts, principles, and techniques of modern analytical chemistry that would empower students with an analytical mind set and the abilities to solve diverse analytical problems in an efficient and quantitative way that conveys the importance of accuracy and precision of the analytical results. On successful completion of this course, students will be able:</p> <ol style="list-style-type: none"> 1. to develop an understanding of the range and uses of analytical methods in chemistry. 2. to establish an appreciation of the role of chemistry in quantitative analysis 3. to develop an understanding of the broad role of the chemist in measurement and problem solving for analytical tasks. 4. to provide an understanding of chemical methods employed for elemental and compound analysis. 5. to provide experience in some scientific methods employed in analytical chemistry. |

| | |
|--|---|
| | 6. to develop some understanding of the professional and safety responsibilities residing in working on chemical analysis. |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | <ul style="list-style-type: none"> ▪ explain the fundamentals of analytical chemistry and steps of a characteristic analysis. ▪ analyze titration curves for complex acid / base systems. ▪ define titration curves for precipitation and complex formation titrimetry. ▪ solve the electrochemical analyses problems. ▪ calculate standard electrode potentials. |
| Indicative Contents المحتويات الإرشادية | <p>This section introduces student to basic principles and practices in Analytical Chemistry. It covers functions and responsibilities of Analytical Chemists, analytical chemistry problems and their solutions in general. It also covers uses and application of the course in general. Learning unit 2 : Laboratory Practice and Safety (5 periods) This section introduces student to good laboratory practices, maintenance of laboratory safety and health standards. It also covers use of various laboratory apparatus and their calibration. A large portion of this unit is practical and students are expected to put in practice what they learn in class on their laboratory daily routine work. Learning unit 3: Titrimetric methods of analysis (14 periods) This section introduces student to basic nomenclature and titrimetric methods of analysis. The focus for this section is on acid-base reactions only. Students will also be introduced to various concentration units and how these units can be used in titrimetry. It will also induct students on hands on practical work as they apply theoretical knowledge in the laboratory sessions. Learning unit 4: Gravimetric methods of analysis (14 periods) This section introduces student to general principles of gravimetry. The focus for this section is on formation of different types of precipitates, processes involved in precipitation formation. It also covers post-treatment techniques of both inorganic and organic precipitates in order to obtain analytical data. It also covers application of gravimetric technique in chemical analysis. Learning unit 5: Sampling and sample preparation (8 periods) This section of the course introduces students the concept of sampling and various sampling techniques. It discusses various types of samples and how they are prepared for analysis. It covers various sample preparation methods and the nature of materials used for both organic and inorganic samples.</p> |

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 types of simple experiments involving some sampling activities that are interesting to the students. |
|-------------------|--|

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ 15 اسبوعاً

Semester One

| | | | |
|---|-----|---|-----|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل | 78 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً | 5.2 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل | 72 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً | 4.8 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 150 | | |

Module Evaluation

تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

| | Material Covered |
|----------------|--|
| Week 1 | Introduction to analytical chemistry |
| Week 2 | Solutions and classification of solutions |
| Week 3 | Express concentrations of solutions |
| Week 4 | Density and specific gravity of solution |
| Week 5 | The relationship between molarity or normality with percentage concentration |
| Week 6 | Diluting solutions |
| Week 7 | Solve of some Problems |
| Week 8 | Concentration by percent |
| Week 9 | P -functions |
| Week 10 | Volumetric analysis |
| Week 11 | Standard solution |
| Week 12 | Acid –Base equilibrium |
| Week 13 | Buffer solution |
| Week 14 | Enthalpy |
| Week 15 | Type of enthalpy |
| Week 16 | Energy of bonds |

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الأسبوعي للمختبر

| | Material Covered |
|--|------------------|
|--|------------------|

Semester One

| | |
|----------------|---|
| Week 1 | Lab safety |
| Week 2 | Laboratory equipment |
| Week 3 | Laboratory techniques: distillation, filtration, centrifugation |
| Week 4 | Vaporization, chromatography, decantation |
| Week 5 | Pipets and pipet pumps, |
| Week 6 | Volumetric analysis (titration) |
| Week 7 | Methods expressing concentration of solutions and calculations of volumetric analysis |
| Week 8 | Preparation of (0.1 N) NaOH solution and standardization with (0.1 N) HCL |
| Week 9 | Preparation of (0.1 N) HCL solution and standardization with sodium carbonate |
| Week 10 | Determination of carbonate and bicarbonate in mixture |
| Week 11 | Determination acidity of Vinegar |
| Week 12 | Determination of hardness of water |
| Week 13 | Preparation and standardization of (0.1 N) AgNO ₃ solution |
| Week 14 | Determination of chloride according to modified Volhard method |
| Week 15 | Complex formation reactions |

Learning and Teaching Resources

مصادر التعلم والتدريس

| | Text | Available in the Library? |
|-------------------|---|---------------------------|
| Required Texts | Alam, M., Akhtar, M., & Asif, H. (2012). Textbook of Practical Analytical Chemistry-E-Book. Elsevier Health Sciences. Christian, G. D., Dasgupta, P. K., & Schug, K. A. (2013). Analytical chemistry. John Wiley & Sons. | Yes |
| Recommended Texts | Hussain, M. (2023). CHEM 221-001: Analytical Methods. | No |
| Websites | https://edu.rsc.org/teacher-pd/in-person/analytical-chemistry/classroom-resources | |

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 |

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.

Semester One

| Module Information معلومات المادة الدراسية | | | | | |
|---|---------------------------|---------------------|--|---------------------------|-----|
| Module Title | General Mathematics | | Module Delivery | | |
| Module Type | Basic | | <div><input checked="" type="checkbox"/> Theory</div> <div><input checked="" type="checkbox"/> Lecture</div> <div><input type="checkbox"/> Lab</div> <div><input checked="" type="checkbox"/> Tutorial</div> <div><input type="checkbox"/> Practical</div> <div><input type="checkbox"/> Seminar</div> | | |
| Module Code | Bio-1103 | | | | |
| ECTS Credits | 5 | | | | |
| SWL (hr/sem) | 125 | | | | |
| Module Level | | 1 | Semester of Delivery | | 1 |
| Administering Department | | Dept. of Biology | College | College of Science | |
| Module Leader | Dr. Anwar Nouruddin Imran | | e-mail | anwarmath@uodiyala.edu.iq | |
| Module Leader’s Acad. Title | | Assistant Professor | 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 | | 1/11/2023 | 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 الإرشادية | |
|--|---|
| Module Objectives أهداف المادة الدراسية | The aim of the General Mathematics course is to prepare students for tertiary study in a variety of areas where an ability to critically analyse information and work with data is inherent. Students with tertiary pathways into areas such as Health, Science, Psychology and Commerce would benefit from studying this course. |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | After successfully completing this subject students should be able to: <ol style="list-style-type: none"> 1. Have knowledge of content and understanding of mathematical concepts and relationships. 2. Use mathematical algorithms and techniques (implemented electronically where appropriate) to find solutions to routine and complex questions. 3. Apply knowledge and skills to answer questions in applied and theoretical contexts. 4. Apply mathematical models to data in order to make predictions. 5. Develop solutions to mathematical problems set in applied and theoretical contexts. 6. Interpret mathematical results in the context of the problem. 7. Understand the reasonableness and possible limitations of the interpreted results, and recognise any assumptions made. 8. Develop and test conjectures. 9. Communicate mathematical ideas and reasoning to develop logical arguments. 10. Use appropriate mathematical notation, representations, and terminology. |

Semester One

| | |
|--|---|
| Indicative Contents المحتويات الإرشادية | 1. Improving the student's ability to observe 2. To learn how to imitate and imitate: Imitation 3. To learn the method of experimentation |
| | |

| Learning and Teaching Strategies استراتيجيات التعلم والتعليم | |
|---|---|
| Strategies | Conducting fun scientific competitions (individual or team). Organizing lectures prepared by students. Formation of volunteer work groups. Scientific trips. |

| Student Workload (SWL) الحمل الدراسي للطلاب محسوب لـ 15 اسبوعا | | | |
|---|-----|--|-----|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل | 60 | Structured SWL (h/w) الحمل الدراسي المنتظم للطلاب أسبوعيا | 5 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطلاب خلال الفصل | 65 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطلاب أسبوعيا | 4.3 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطلاب خلال الفصل | 125 | | |

| Module Evaluation تقييم المادة الدراسية | | | | | |
|--|-----------------|-------------|------------------|----------------|---------------------------|
| | | Time/Number | Weight (Marks) | Week Due | Relevant Learning Outcome |
| Formative assessment | Quizzes | 2 | 10% (10) | 5 and 10 | LO #1, #2 and #10, #11 |
| | Assignments | 2 | 10% (10) | 2 and 12 | LO #3, #4 and #6, #7 |
| | Projects / Lab. | 0 | 10% (10) | Continuou s | All |
| | Report | 2 | 10% (10) | 13 | LO #5, #8 and #10 |
| Summative assessment | Midterm Exam | 2hr | 10% (10) | 7 | LO #1 - #7 |
| | Final Exam | 3hr | 50% (50) | 16 | All |
| Total assessment | | | 100% (100 Marks) | | |

| Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري | |
|--|--|
| | Material Covered |
| 1 | laws of derivative |
| 2 | higher derivative and Implicit deferential |
| 3 | chain Rule |
| 4 | derivative of triangle function |
| 5 | derivative of hyperbolic function and derivative of invers |
| 6 | derivative of inverse hyperbolic function |
| 7 | derivative of logarithms and exponential |

Semester One

| | |
|----|--|
| 8 | laws of Integral |
| 9 | the integration of triangle function |
| 10 | the integration of invers triangle function |
| 11 | the integration of hyperbolic function |
| 12 | the integration of invers hyperbolic function |
| 13 | the integration of logarithms and exponential function |
| 14 | The methods of integration |
| 15 | tabular integration, Trigonometric integration, Trigonometric substitution |

Learning and Teaching Resources

مصادر التعلم والتدريس

| | Text | Available in the Library? |
|-------------------|--|---------------------------|
| Required Texts | 1. "Discrete Mathematics and Its Applications" by Kenneth H. Rosen, 2007. 2. "Discrete Mathematics Demystified" by Steven G. Krantz, 2009. 3. "Fundamental Concepts of Modern Mathematics" by Max D. Larsen. | Yes |
| Recommended Texts | 4. "Discrete Mathematics- Schaum's Outline" by S. Lipschutz and M. Lipson, 2007. | No |
| Websites | https://www.syriamath.net/library | |

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 |
| | | | | |

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.

| Module Information | | | | | |
|------------------------------------|---------------------|-----------------|--|-----------------------|-------|
| معلومات المادة الدراسية | | | | | |
| Module Title | Biophysics | | Module Delivery | | |
| Module Type | Basic | | <div><input checked="" type="checkbox"/> Theory</div> <div><input checked="" type="checkbox"/> Lecture</div> <div><input checked="" type="checkbox"/> Lab</div> <div><input type="checkbox"/> Tutorial</div> <div><input type="checkbox"/> Practical</div> <div><input type="checkbox"/> Seminar</div> | | |
| Module Code | Bio-1104 | | | | |
| ECTS Credits | 6 | | | | |
| SWL (hr/sem) | 167 | | | | |
| Module Level | | 1 | Semester of Delivery | | 1 |
| Administering Department | | Type Dept. Code | College | Type College Code | |
| Module Leader | Amera Kanan | | e-mail | amera@uodiyala.edu.iq | |
| Module Leader’s Acad. Title | | Lecturer | Module Leader’s Qualification | | M Sc. |
| Module Tutor | Name (if available) | | e-mail | E-mail | |
| Peer Reviewer Name | | Name | e-mail | E-mail | |
| Scientific Committee Approval Date | | 1/11/2023 | 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 الإرشادية | |
|--|--|
| Module Objectives أهداف المادة الدراسية | <p>In this module we will review in detail several important modern physical science concepts, models, laws, tools and techniques that can be applied to addressing real biological questions, with a thorough discussion of the underlying physics.</p> <p>Physical science methods historically have been key to providing enormous breakthroughs in our understanding of fundamental biology - stemming from the early development of optical microscopy in understanding the cellular nature of life, through to complex structural biology techniques to elucidate the shape of vital biomolecules including proteins and DNA.</p> <p>In the first half of this module we will introduce the key biological macromolecules, the forces that are involved in maintaining their structure and how structure is determined. We will next discuss key physical science developments that have involved methods to study single cells in their native context, single- molecule biophysical methods that permit dynamic and mechanistic information to be extracted with unprecedented precision, and ground-breaking developments in areas of super-resolution imaging and biosensing.</p> <p>In the second half of the module we will discuss tools and techniques that, broadly, permit the detection and characterization of biological material using</p> |

| | |
|---|--|
| | non-visible electromagnetic radiation, and methods used to manipulate and quantify biological forces, with particular emphasis throughout placed on real applications. Examples of such tools discussed include electron microscopy, nuclear magnetic resonance spectroscopy and atomic force microscopy. |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | <p>The module will focus on a number of concepts, models, laws, tools and techniques of physical science that underpin biophysical methods. It will address a broad range of challenging biological questions. During this module students will:</p> <ol style="list-style-type: none"> 1. Comprehend the use of physical concepts and laws to produce models of biological systems, and quantitatively analyse these models. 2. Critically analyse the validity of assumptions made in these models and assess their impact on the validity of the results. 3. Understand the physical basis of experimental techniques used to study the biological systems introduced and explain the key results. 4. Assess the key features and biological significance of the systems introduced. 5. Demonstrate an understanding of the key physical principles behind several important biological processes underpinning living matter. 6. Apply modern biophysical tools and techniques to real applications |
| Indicative Contents المحتويات الإرشادية | The lecture course will discuss the scope of modern biophysics, and introduce students to the fundamentals of chemical bonding, and the structure and function of biological molecules including sugars, lipids, proteins, nucleic acids and molecular machines. Biophysical techniques including optical spectroscopy, dynamic light scattering, fluorescence spectroscopy and the basics of light microscopy will then be discussed in detail. Insights into single-molecule imaging and spectroscopy will then be provided, before a series of lectures on super-resolution approaches. Next, students will encounter techniques which use non-optical waves in their mode of operation, including electron microscopy, X-ray spectroscopy and nuclear magnetic resonance spectroscopy. Experimental techniques which rely on forces, including atomic force microscopy and optical tweezers will then be discussed in detail. Complementary and emerging experimental techniques will also be presented, as well as detailed analysis of molecular dynamics simulations. The lecture course will also include revision of the course material and guest research lectures from specialists in the field. Examples of guest research lectures include, but are not limited to: Digital Holographic Microscopy, Biofilms, Biophotonics and Raman Spectroscopy. |

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

| | |
|------------|--|
| 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 types of simple experiments involving some sampling activities that are interesting to the students. |
|------------|--|

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ 15 اسبوعا

| | | | |
|------------------------|----|----------------------|---|
| Structured SWL (h/sem) | 77 | Structured SWL (h/w) | 5 |
|------------------------|----|----------------------|---|

Semester One

| | | | |
|---|-----|--|---|
| الحمل الدراسي المنتظم للطالب خلال الفصل | | الحمل الدراسي المنتظم للطالب أسبوعيا | |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل | 90 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا | 6 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 150 | | |

Module Evaluation

تقييم المادة الدراسية

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

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

| | Material Covered |
|---------|--|
| Week 1 | The lecture course will discuss the scope of modern biophysics, and introduce students to the fundamentals of chemical bonding |
| Week 2 | The structure and function of biological molecules including sugars, lipids, proteins, nucleic acids and molecular machines. |
| Week 3 | Biophysical techniques including optical spectroscopy, dynamic light scattering |
| Week 4 | Fluorescence spectroscopy and the basics of light microscopy will then be discussed in detail. |
| Week 5 | properties of fluids: pressure, buoyancy, Archimedes' rule, ideal fluid flow , Bernoulli equation, Venturi tube, |
| Week 6 | Medical needles, Pitot tube |
| Week 7 | real fluid viscosity and flow, Viscosity modulus, viscosity changes with degree Heat, Brazier's law, |
| Week 8 | flow rate the blood and its relationship with pressure slope, velocity sedimentation |
| Week 9 | fluid properties: fluid diffusion, Vic's Fluid Law, Maturity, Laws Maturity, boiling point of solutions |
| Week 10 | fluid properties: surface tensile, Surface tensile modulus, some live applications |
| Week 11 | Vibratory motion, force constant, motion Simple harmonic, potential energy and kinematics in simple harmonic motion |
| Week 12 | fading or fading, resonance |
| Week 13 | wave motion, sine wave equation, wave velocity in elastic media, sedentary pats, strikes, |
| Week 14 | ear and hearing distress, hearing mechanism, Pitch and loudness, optics |
| Week 15 | Preparatory week before the final Exam |

| Delivery Plan (Weekly Lab. Syllabus) المنهاج الأسبوعي للمختبر | |
|--|---|
| | Material Covered |
| Week 1 | Lab 1: Ohm's Law |
| Week 2 | Lab 2: Balance of power |
| Week 3 | Lab 3: Finding the ground acceleration using a simple pendulum |
| Week 4 | Lab 4: Find the melting point of the wax from its cooling curve |
| Week 5 | Lab 5: Determination of the specific heat of a poor conductor of heat (elastic) |
| Week 6 | Lab 6: Find the density of a liquid |
| Week 7 | Lab 7: Boyle's Law investigation |
| Week 8 | Lab 8: Joule equivalent |
| Week 9 | Lab 9: Finding the relationship between the current passing through the tungsten thread and the potential difference between its two ends |
| Week 10 | Lab 10: Determination of the specific heat of graphite |
| Week 11 | Lab 11: Study of the relationship between temperature and electromotive force of a |
| Week 12 | Lab 12: Resistance changes with temperature |
| Week 13 | Lab 13: Set the flame temperature |
| Week 14 | Lab 14: Determination of the coefficient of thermal conductivity of a rubber tube |
| Week 15 | Lab 15: The coefficient of volumetric expansion of liquids |

| Learning and Teaching Resources مصادر التعلم والتدريس | | |
|--|---|---------------------------|
| | Text | Available in the Library? |
| Required Texts | Leake MC: Biophysics: tools and techniques (CRC Press, 1st Ed, 2016) Leake MC: Single-Molecule Cellular Biophysics (CUP, 1st Ed, 2013) | No |
| Recommended Texts | Alberts A et al: Molecular Biology of the Cell (Garland Science, 6th Ed, 2014). | No |
| Websites | https://www.coursera.org/browse/physical-science/ | |

| 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 |
| | | | | |

Semester One

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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | |
|------------------------------------|-----------------------------------|-------------------------------|--|
| معلومات المادة الدراسية | | | |
| Module Title | Human Rights and Democracy | | Module Delivery |
| Module Type | Basic | | <input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> L Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar |
| Module Code | UD04 | | |
| ECTS Credits | 2 | | |
| SWL (hr/sem) | 50 | | |
| Module Level | | Semester of Delivery | |
| Administering Department | جميع اقسام الكلية | College | College of Engineering |
| Module Leader | | e-mail | |
| Module Leader's Acad. Title | لجنة حقوق الانسان والديمقراطية | Module Leader's Qualification | MSc. |
| Module Tutor | | e-mail | |
| Peer Reviewer Name | | e-mail | |
| Scientific Committee Approval Date | 12/06/2023 | 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 الإرشادية | |
| Module Objectives أهداف المادة الدراسية | <p>1. يتعلم الطالب خلال السنة الدراسية أساسيات حقوق الانسان والديمقراطية ما حقوقه كيف يدافع عنها بالطرق القانونية وماهي ضماناتها الداخلية والدولية.</p> <p>2. استحضار المعرفة في مجال الديمقراطية وأنواع أنظمتها واثرها على حقوق الانسان .</p> <p>3. تنمية شخصية الطالب وتعزيز وعيهم في الأنظمة السياسية الديمقراطية وتفصيلها وكيفية تطبيقها على ارض الواقع واهمية ان يكون فعال في المجتمع من خلال احترامه لحقوق الآخرين ومعرفة ان الحقوق والحريات تنتهي عند بداية حقوقهم وحرياتهم ويؤدي واجباته بدلا من اكتساب الحقوق فقط.</p> <p>4. تعزيز ثقافة السلام القائمة على العدل والمساواة.</p> |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | <p>1. تمكين الطالب من معرفة أساسيات الدفاع عن حقوقه وحقوق الآخرين بعد معرفتها ومعرفة أهميتها له وللمجتمع بصورة عامة وأيضا معرفه كل شخص حدود حقوقه وحريته .</p> <p>2. تمكين الطالب في المشاركة السياسية وذلك من خلال معرفته بأهمية مشاركته في الانتخابات وتأثير هذه المشاركة على سير الانتخابات وتشكيل السلطة فيما بعد.</p> <p>3. معرفة الطالب ضمانات حقوقه وحرياته وماهي مصادرهما.</p> <p>4. معرفة الفرق بين الحقوق والحريات.</p> <p>5. تمكين الطالب من معرفة ماهي المفهوم العلمي للديمقراطية وماهي جذورها وانواعها واشكالها.</p> <p>6. يتعلم الطالب كيف يؤثر النظام الديمقراطي على حقوق الانسان وماهي العلاقة بينها.</p> <p>7. ادراك الطالب ضرورة ان يكون مواطن فعال في المجتمع ايضاً معرفه شروط الناخب وشروط المرشح للانتخابات.</p> <p>8. معرفة أنظمة الانتخابات وايهما افضل.</p> <p>9. فهم الطالب للقانون الدولي لحقوق الانسان وايضاً معرفة مختصرة عن المنظمات الدولية والية عملها</p> |

| | |
|---|---|
| Indicative Contents المحتويات الإرشادية | كالأمم المتحدة ومنظمة الصليب الأحمر وغيرها. |
| | <p>الجزء الأول - تعريف حقوق الإنسان وحقوق الإنسان في الحضارات القديمة (تعريف الحق وتعريف الإنسان ومعرفة أهمية حقوق الإنسان بالنسبة للإنسان والمجتمع أيضا دراسة حقوق الإنسان في الحضارات كالحضارة المصرية والعراقية واليونانية والرومانية) (٤ ساعات)</p> <p>الجزء الثاني معرف حقوق الإنسان في الأديان السماوية وأهمها الإسلام (٢ ساعة) مصادر حقوق الإنسان تتضمن (مصادر دولية كالإعلان العالمي لحقوق الإنسان والعهدان الدوليان والمصادر الإقليمية التي تشمل الاتفاقيات الإقليمية كالاتفاقية الأوروبية والأمريكية والدستور (٢ ساعة)</p> <p>ضمانات حقوق الإنسان (كالضمانات الدستورية والقانونية) (٢ ساعة)</p> <p>الاتفاقيات الدولية والإقليمية لحقوق الإنسان (٢ ساعة)</p> <p>الحريات العامة وأنواعها والمقارنة فيما بينها (٢ ساعة)</p> <p>مستقبل حقوق الإنسان والعولمة وحقوق الإنسان (٢ ساعة)</p> <p>تعريف وتاريخ وأنواع الديمقراطية (دراسة تعريف ونشأة وتطور الديمقراطية مبادئها وأنواعها كالديمقراطية المباشرة وغير المباشرة والنظام الرئاسي والبرلماني) (٦ ساعات)</p> <p>تعريف الانتخاب وشروطه وأنواع النظم الانتخابية وتعريف المجلس النيابي (٦ ساعات)</p> <p>العلاقة بين الديمقراطية وحقوق الإنسان (٢ ساعة)</p> |

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

| | |
|-------------------|--|
| Strategies | 1. زيادة وعي الطالب بأهمية معرفه حقوقه وواجباته اتجاه المجتمع وعلاقة حقوق الإنسان بالنظام الديمقراطي |
| | 2. ثقافة عامة في مجموعة من المجالات ومنها المجال القانوني و السياسي والاجتماعي ورفع ثقة الطالب بنفسه من خلال ربط المادة النظرية بالواقع العملي |

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ أسبوعا

| | | | |
|--|-----------|---|------------|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل | 33 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا | 2 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل | 17 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا | 1.1 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 50 | | |

Module Evaluation

تقييم المادة الدراسية

| | | Time/Number | Weight (Marks) | Week Due | Relevant Learning Outcome |
|-----------------------------|------------------------|-------------|-------------------------|-----------------|----------------------------------|
| Formative assessment | Quizzes | 2 | 15% (10) | 5 and 10 | LO #1, #2 #3, and #6 #7#8 |
| | Assignments | 2 | 10% (10) | 2 and 12 | LO #3, #4 and #6, #7 |
| | Projects / Lab. | | | | |
| | Report | 1 | 15% (10) | 13 | LO #5, #8 and #9 |
| Summative assessment | Midterm Exam | 2hr | 10% (10) | 7 | LO #1 - #7 |
| | Final Exam | 3hr | 50% (50) | 16 | All |
| Total assessment | | | 100% (100 Marks) | | |

Delivery Plan (Weekly Syllabus)

المناهج الاسبوعي النظري

| | Material Covered |
|---------|--|
| Week 1 | محاضرة تعريفية عن المادة واهميتها .. |
| Week 2 | تعريف الحق والانسان وحقوق الانسان واهمية حقوق الانسان ,حقوق الانسان في الدين الإسلامي والحضارات القديمة. |
| Week 3 | مصادر حقوق الانسان الدولية والإقليمية والمحلية. |
| Week 4 | ضمانات حقوق الانسان الدستورية والقانونية وضمانات حقوق الانسان على الصعيد الدولي. |
| Week5 | ضمانات حقوق الانسان في الإسلام |
| Week 6 | دور المنظمات الإقليمية في حماية حقوق الانسان. |
| Week 7 | خصائص حقوق الانسان وتعريف الحريات العامة وانواعه والمقارنة بينها وبين الحقوق القانون الدولي لحقوق الانسان والقانون الدولي الإنساني ومنظمة الصليب الأحمر. |
| Week 8 | مستقبل حقوق الانسان وسبل تطويرها . |
| Week 9 | العولمة وحقوق الانسان . |
| Week 10 | تعريف الديمقراطية وتطورها التاريخي ومبادئها . الديمقراطية بين العالمية والخصوصية . اشكال الديمقراطية / الديمقراطية المباشرة. |
| Week 11 | الديمقراطية شبه المباشرة والديمقراطية التمثيلية / اركان النظام التمثيلي / اشكال النظام التمثيلي. |
| Week 12 | المجلس النيابي وانواعه / الانتخاب وشروطه / هيئة الناخبين. |
| Week 13 | تنظيم عملية الانتخاب / تحديد الدوائر الانتخابية / القوائم الانتخابية / المرشحات / الحملة الانتخابية / التصويت . |
| Week 14 | نظم الانتخابات. |
| Week 15 | علاقة الديمقراطية بحقوق الانسان وكيفية التأثير والتأثر فيما بينها. |
| Week 16 | الامتحان النهائي |

Learning and Teaching Resources

مصادر التعلم والتدريس

| | Text | Available in the Library? |
|-------------------|---|---------------------------|
| Required Texts | حقوق الانسان والطفل والديمقراطية / تأليف ماهر صالح علاوي ورياض عزيز هادي وعلي عبد الرزاق محمد واخرون / العاتك / بيروت / ٢٠٠٩ | نعم |
| Recommended Texts | عباس الدليمي / حقوق الانسان الفكر والممارسة فخري رشيد ،صلاح ياسين /المنظمات الدولية / العاتك لصناعة الكتاب / بغداد عصام العطية / القانون الدولي العام / المكتبة القانونية /بغداد/2012 | لا |
| Websites | | |

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 |
| | | | | |

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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | | |
|------------------------------------|------------------------|----------------------|---|-------------------------|
| معلومات المادة الدراسية | | | | |
| Module Title | Arabic Language | | Module Delivery | |
| Module Type | Support | | <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 | UD02 | | | |
| ECTS Credits | 2 | | | |
| SWL (hr/sem) | 50 | | | |
| Module Level | 1 | Semester of Delivery | | 2 |
| Administering Department | Type Dept. Code | College | Type College Code | |
| Module Leader | Othman Khlan Farhan | | e-mail | othaman@uodiyala.edu.iq |
| Module Leader's Acad. Title | Lecturer | | 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 | 01/06/2023 | | 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 الإرشادية | |
| Module Objectives أهداف المادة الدراسية | 1- تعريف الطلبة اهم المفاتيح الأساس في التعامل بلغة عربية فصيحة خالية من اي خطأ أو لحن وكيفية التعلم فيما يخص الأدب والنحو والبلاغة والاملاء العربية وكل هذا لغير الاختصاص. 2- رفع القدرات التعبيرية للطلّاب، وزيادة ثروتهم اللغوية ، ومساعدتهم على استخدام العبارة المناسبة بشكل دلالي واضح. 3- تدريب الطلبة على التحدث، والتنظيم المنطقي للأفكار ، مع الحرص على التمسك باللغة العربية الفصحى . 4- رفع الأداء اللغوي العام لدى الطلبة. 5- تمكين الطلبة من الكتابة والتعبير والحديث بلغة عربية فصيحة وواضحة. 6- مساعدة الطلبة في التعبير عن افكارهم من خلال المناقشة والحوار بلغة سهلة وفصيحة . 7- جعل الطلبة قادرين على اكتساب خزين لغوي من الكلمات واللفاظ والتعابير الفصيحة. 8- تعلم الطلبة الحفاظ على لغة القرآن التراث العربي الاصيل. |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | الاهداف المعرفية والمهارية: 1- يعرف اساليب اللغة العربية. 2- يوظف ادوات الترقيم عند الكتابة . 3- يتدرب على كيفية تحليل النصوص الادبية . 4- يعرب بعض الامثلة والتمارين عن الجملة الاسمية والفعلية . 5- يناقش بعض النصوص القرآنية والادبية . 6- يبين الفرق بين علامات الاعراب الاصلية والفرعية. 7- يميز بين الافعال والاسماء في الجمل. 8- يتدرب على القراءة الواضحة والإلقاء . 9- يتدرب على الكتابة بخط حسن من خلال التعريف بأنواع الخطوط العربية، وكتابة كل حرف، ثم |

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| | <p>كتاب الجمل والعبارات بخط الرقعة.</p> <p>10- يميز بين حمزة القطع وهمزة الوصل عند الكتابة .</p> <p>11- يميز بين حرفي الضاد والظاء في الكتابة والنطق.</p> <p>12- يميز بين التاء المربوطة والمفتوحة أثناء الكتابة.</p> <p>13- أحكام كتابة الضاد والظاء.</p> |
| <p>Indicative Contents المحتويات الإرشادية</p> | <p>توضيح أهمية اللغة العربية وفوائدها بالنسبة للطالب الجامعي (2 ساعة).</p> <p>اللغة، تفسير وتحليل أول عشرة آيات من سورة الكهف مع بيان فضل السورة وسبب تسميتها وأهم الأوجه البلاغية والنحوية . (2 ساعة)</p> <p>اللغة، تفسير وتحليل ثلاثة آيات من سورة الحجرات مع بيان فضل السورة وسبب تسميتها وأهم الأوجه البلاغية والنحوية. (2 ساعة)</p> <p>الادب، تحليل ثلاثة عشر سطرًا من قصيدة سفر أيوب في الشعر الحر للشاعر العراقي بدر شاكر السياب مع حياة الشاعر وأهم الأوجه البلاغية والنحوية في القصيدة. (2 ساعة)</p> <p>الادب، تحليل ثمانية أبيات في الحماس للشاعر أبي الطيب المتنبي مع حياة الشاعر مع أهم الأوجه البلاغية والنحوية في القصيدة. (2 ساعة)</p> <p>قواعد اللغة العربية وأهميتها</p> <p>معرفة أقسام الكلام (الاسم والفعل والحرف) وأهم علاماتها.</p> <p>قواعد اللغة العربية :- النكرة والمعرفة، أنواع المعارف (العلم) شرح موضوع (اسم العلم والاسم المركب) مع الأمثلة. (2 ساعة)</p> <p>قواعد اللغة العربية، (الضمائر) شرح موضوع (الضمائر الرفع والنصب والجر) مع الأمثلة. (2 ساعة)</p> <p>اللغة، حفظ وتفسير وتحليل سورة الأعلى مع بيان فضل السورة وسبب تسميتها وأهم الأوجه البلاغية والنحوية.</p> <p>الادب، تحليل ثمانية أبيات من قصيدة (كن بلسمًا) للشاعر (إيليا أبي ماضي) مع حياة الشاعر مع أهم الحالات الاعرابية والبلاغية. (2 ساعة)</p> <p>قواعد اللغة العربية، شرح موضوع (أسماء الإشارة) مع الأمثلة وحالات الاعراب، شرح موضوع (المعرف بالإضافة) مع الأمثلة وحالات الاعراب. (2 ساعة)</p> <p>قواعد اللغة العربية، شرح موضوع (الحال) معرفة الحال وصاحبها وما هي أنواع الحال مع الأمثلة وحالات الاعراب. (2 ساعة)</p> <p>الأملاء في اللغة العربية، علامات الترقيم وأهميتها في اللغة العربية. (2 ساعة)</p> <p>قواعد اللغة العربية، شرح موضوع (العدد) معرفة تميز العدد وماهي أقسام العدد مع الأمثلة وحالات الاعراب.</p> |

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

| | |
|------------|---|
| Strategies | <ul style="list-style-type: none"> - المحاضرة والمشاركة. - المناقشة والحوار. - العصف الذهني. - كتابة التقارير عن الموضوع. - السؤال والجواب . |
|------------|---|

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

| | | | |
|--|----|---|---|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل | 30 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا | 7 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل | 30 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا | 6 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 60 | | |

Module Evaluation

تقييم المادة الدراسية

| | | Time/Number | Weight (Marks) | Week Due | Relevant Learning Outcome |
|----------------------|--------------|-------------|------------------|----------|---------------------------|
| Formative assessment | Quizzes | 2 | 10% (10) | 5 and 10 | LO #1, #2 and #10, #11 |
| | Assignments | 2 | 10% (10) | 2 and 12 | LO #3, #4 and #6, #7 |
| | Report | 1 | 10% (10) | 13 | LO #5, #8 and #10 |
| Summative assessment | Midterm Exam | 2hr | 20% (10) | 7 | LO #1 - #7 |
| | Final Exam | 3hr | 50% (50) | 16 | All |
| Total assessment | | | 100% (100 Marks) | | |

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

| | Material Covered |
|---------|--|
| Week 1 | توضيح أهمية اللغة العربية وفوائدها بالنسبة للطالب الجامعي. |
| Week 2 | اللغة، تفسير وتحليل أول عشرة آيات من سورة الكهف مع بيان فضل السورة وسبب تسميتها وأهم الأوجه البلاغية والنحوية. |
| Week 3 | اللغة، تفسير وتحليل ثلاثة آيات من سورة الحجرات مع بيان فضل السورة وسبب تسميتها وأهم الأوجه البلاغية والنحوية. |
| Week 4 | الادب، تحليل ثلاثة عشر سطرًا من قصيدة سفر أيوب في الشعر الحر للشاعر العراقي بدر شاكر السياب مع حياة الشاعر وأهم الأوجه البلاغية والنحوية في القصيدة. |
| Week 5 | الادب، تحليل ثمانية أبيات في الحماس للشاعر أبي الطيب المتنبي مع حياة الشاعر مع أهم الأوجه البلاغية والنحوية في القصيدة. |
| Week 6 | قواعد اللغة العربية وأهميتها |
| Week 7 | معرفة أقسام الكلام (الاسم والفعل والحرف) وأهم علاماتها. |
| Week 8 | قواعد اللغة العربية :- النكرة والمعرفة، أنواع المعارف (العلم) شرح موضوع (اسم العلم والاسم المركب) مع الأمثلة. |
| Week 9 | قواعد اللغة العربية، (الضمائر) شرح موضوع (الضمائر الرفع والنصب والجر) مع الأمثلة. |
| Week 10 | اللغة، تفسير وتحليل سورة الأعلى مع بيان فضل السورة وسبب تسميتها وأهم الأوجه البلاغية والنحوية. |
| Week 11 | الادب، تحليل ثمانية أبيات من قصيدة (كن بلسمًا) للشاعر (إيليا أبي ماضي) مع حياة الشاعر مع أهم الحالات الاعرابية والبلاغية. |
| Week 12 | قواعد اللغة العربية، شرح موضوع (أسماء الإشارة) مع الأمثلة وحالات الاعراب، شرح موضوع (المعرف بالإضافة) مع الأمثلة وحالات الاعراب. |
| Week 13 | قواعد اللغة العربية، شرح موضوع (الحال) معرفة الحال وصاحبها وما هي أنواع الحال مع الأمثلة وحالات الاعراب. |
| Week 14 | الأملاء في اللغة العربية، علامات الترفيع وأهميتها في اللغة العربية. |
| Week 15 | قواعد اللغة العربية، شرح موضوع (العدد) معرفة تميز العدد وماهي أقسام العدد مع الأمثلة وحالات الاعراب. |
| Week 16 | الأملاء في اللغة العربية، أحكام الهمزة (همزة الوصل، همزة القطع، كتابة الهمزة في وسط الكلمة). |
| Week 17 | الأملاء في اللغة العربية: أحكام كتابة التاء المربوطة والمفتوحة والالف الممدودة والمقصورة. |

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

| | Material Covered |
|--------|------------------|
| Week 1 | |
| Week 2 | |
| Week 3 | |
| Week 4 | |
| Week 5 | |
| Week 6 | |
| Week 7 | |

Learning and Teaching Resources

مصادر التعلم والتدريس

Semester One

| | Text | Available in the Library? |
|--------------------------|--|---------------------------|
| Required Texts | 1. القرآن الكريم. 2. كتاب البلاغة والتطبيق. 3. كتاب الأملاء الواضح . 4. منهاج اللغة العربية لغير الاختصاص. 5. قواعد الإملاء الصحيحة لعبد السلام محمد هارون | Yes |
| Recommended Texts | 1. كتاب شرح ابن عقيل على الفية ابن مالك/ ابن عقيل عبد الله بن عبد الرحمن. 2. كتاب الميسر في اللغة العربية لغير الاختصاص/ الدكتور زياد طارق شولي 3. منهاج اللغة العربية العامة لغير الاختصاص/ عبد القادر حسن امين 4. معاني النحو للدكتور فاضل السامرائي 5. إعراب القرآن وتفسيره وبيانه لمحمود الدرويش | Yes |
| Websites | 1- http://www.al-mostafa.com/index.htm 2- http://www.almeshkat.net/books/index.php 3- http://www.imamu.edu.sa/arabiyah | |

| 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 |
| | | | | |
| 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. | | | | |

Semester Two

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | | |
|------------------------------------|--------------------------|----------------------|---|------------------------------|
| معلومات المادة الدراسية | | | | |
| Module Title | General Botany | | Module Delivery | |
| Module Type | Core | | <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 | Bio-1201 | | | |
| ECTS Credits | 7 | | | |
| SWL (hr/sem) | 174 | | | |
| Module Level | 1 | Semester of Delivery | | 2 |
| Administering Department | Type Dept. Code | College | Type College Code | |
| Module Leader | Khalid Dheyaa Abdulwahid | | e-mail | chechanikd75@uodiyala.edu.iq |
| Module Leader's Acad. Title | Assis. Prof. | | Module Leader's Qualification | Ph.D. |
| Module Tutor | Khalid Dheyaa Abdulwahid | | e-mail | chechanikd75@uodiyala.edu.iq |
| Peer Reviewer Name | Khalid Dheyaa Abdulwahid | | e-mail | chechanikd75@uodiyala.edu.iq |
| Scientific Committee Approval Date | 08/06/2023 | | Version Number | 1.0 |

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

| | | | |
|----------------------|----------|----------|---|
| Prerequisite module | None | Semester | |
| Co-requisites module | Bio-2312 | Semester | 3 |

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

| | |
|---|--|
| Module Objectives أهداف المادة الدراسية | 5. Learn about plants in nature and how they are classified and developed. 6. Identify the plant cell and its various components. 7. Identify plant tissues and their functions. 8. Identify the different parts of the plant. 9. Studying photosynthesis in plants. 10. Granting the student a bachelor's degree in the theoretical and practical aspects. |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | 7. Identify the science of Botany and learn about origin, development, and systematics, classification of plants as well as In addition to the location of the plant kingdom within the pyramid of life. 8. Learn about the differences photosynthetic organisms (plants1) and Vegetabilia kingdom (plants2), as well as fully parasitic plants. 9. Clarification the Cell theory and learn about Light, TEM, SEM microscopy and identification of the parts and organelles of plant cell. 10. Distinguish between eukaryotic and prokaryotic plants and identify the parts of the nucleus in a plant cell. As well as discussing the plant life cycle and the mechanisms of cell division in plant cells. 11. Distinguishing the important differences between mitochondria and |

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| | <p>plastids, in addition to knowing a brief about their development from an evolutionary point of view.</p> <p>12. A detailed explanation of plant tissues, their types, locations in the plant and their functions.</p> <p>13. Identify the organs of plant and studied anatomically.</p> <p>14. Explain the process of photosynthesis in plants.</p> |
| Indicative Contents المحتويات الإرشادية | <p>Indicative content includes the following.</p> <p><u>A. Cognitive goals</u></p> <p>A1-The first level // Knowledge development // Develop the student's ability to recall what he learned about scientific facts related to Botany and enable students to obtain knowledge and understanding of the intellectual and applied framework in the science of Botany.</p> <p>A2-The second level // Improving comprehension level // Developing the ability to interpret, predict and deduce and enable students to obtain knowledge and understanding of the requirements in plant groups according to scientific standards.</p> <p>A3-The third level // Developing applied abilities (Application) // Informing students of modern techniques in Botany through showing films and scientific research.</p> <p>A4-The fourth level // provide the student with the ability to analyze (analysis) // enable students to gain knowledge in Botany.</p> <p><u>B. objectives and skills</u></p> <p>B1- Providing students with the additional basics related to the outputs of thinking and analysis.</p> <p>B2- Learn experimentation.</p> <p>B3- Improving the student's ability in observation.</p> <p>B4- Learn how to imitate and simulate.</p> <p><u>C. Emotional and value goals</u></p> <p>C1- Asking general questions during laboratory and theoretical lessons.</p> <p>C2- Assign students to report on various topics of Botany.</p> <p>C3- Enable students to conduct all experiments related to Botany.</p> <p>C4- Discussing and directing graduation research for fourth-year students.</p> |

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

| | |
|-------------------|---|
| Strategies | <p>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 types of simple experiments involving some sampling activities that are interesting to the students.</p> |
|-------------------|---|

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ 15 اسبوعا

| | | | |
|--|----|---|-----|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل | 79 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا | 5.2 |
| Unstructured SWL (h/sem) | 96 | Unstructured SWL (h/w) | 6.4 |

| | |
|---|--|
| الحمل الدراسي غير المنتظم للطالب خلال الفصل | الحمل الدراسي غير المنتظم للطالب أسبوعيا |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 175 |

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

| Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري | |
|--|---|
| | Material Covered |
| Week 1 | Introduction of Botany - Origin and development- Systematics and classification |
| Week 2 | The nature of plant - Photosynthetic organisms –Vegetabilia kingdom -Fully parasitic plants |
| Week 3 | The plant cell : Introduction to Cells-Cell theory- Types of microscopy - Cell membrane and |
| Week 4 | The plant cell: Nucleus- Nucleolus-Chromosomes. |
| Week 5 | The plant cell: Ribosomes- Protein Synthesis -Rough endoplasmic reticulum- Golgi |
| Week 6 | The plant cell: Life Cycle -karyokinesis, cytokinesis- Meiosis, Mitosis, Mitochondria and |
| Week 7 | The plant cell: Vacuoles and other Vesicles - Cellular Skeleton |
| Week 8 | Mid exam |
| Week 9 | Tissues of plant: Epidermis- Ground tissues- Supportive tissues- Meristems |
| Week 10 | Tissues of plant: Vascular tissues- Periderm |
| Week 11 | Organs of plant: Roots - Roots forms- Modification of roots -Anatomy of root |
| Week 12 | Organs of plant: Stems- Modification of stems - Anatomy of stem |
| Week 13 | Organs of plant: Leaves - Leaves form - Anatomy of leaves, Flowering plants |
| Week 14 | Photosynthesis |
| Week 15 | Final exam |

| Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر | |
|--|--|
| | Material Covered |
| Week 1 | Lab1 The Plant cell (Living & non-Living contents) |

| | |
|----------------|---|
| Week 2 | Lab2 The Cell wall |
| Week 3 | Lab3 The cell division (Mitosis & Meiosis) |
| Week 4 | Lab4 The Epidermis in Dicot & Monocot |
| Week 5 | Lab5 The plant tissues: Parenchyma tissue |
| Week 6 | Lab6 The plant tissues: Collenchyma tissue |
| Week 7 | Lab7 The plant tissues: Sclerenchyma tissue |
| Week 8 | Mid exam |
| Week 9 | Lab8 The plant tissues: Xylem & Phloem |
| Week 10 | Lab9 Organs of plant: The Root |
| Week 11 | Lab10 Organs of plant: The Stem |
| Week 12 | Lab11 Organs of plant: The Leaf |
| Week 13 | Lab12 Organs of plant: The Flower |
| Week 14 | Lab13 Organs of plant: The Fruit |
| Week 15 | Final exam |

Learning and Teaching Resources

مصادر التعلم والتدريس

| | Text | Available in the Library? |
|--------------------------|---|---------------------------|
| Required Texts | Introduction to Botany, Alexey Shipunov Shipunov, Alexey. Introduction to Botany. Lecture notes. February 8, 2018 version | Yes |
| Recommended Texts | BOTANY ,TAMIL NADU TEXTBOOK CORPORATION COLLEGE ROAD, CHENNAI - 600 006.Government of Tamil Nadu First edition – 2005. | Yes |
| Websites | http://ashipunov.info/shipunov/school/biol_154 | |

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 |

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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | | |
|------------------------------------|--------------------------|-------------------------------|---|------------------------------|
| معلومات المادة الدراسية | | | | |
| Module Title | Organic Chemistry | | Module Delivery | |
| Module Type | Core | | <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 | Bio-1212 | | | |
| ECTS Credits | 7 | | | |
| SWL (hr/sem) | 175 | | | |
| Module Level | 1 | Semester of Delivery | | 2 |
| Administering Department | Type Dept. Code | College | Type College Code | |
| Module Leader | Waseem Yousif Mohammed | | e-mail | WaseemYousif@uodiyala.edu.iq |
| Module Leader's Acad. Title | Lecturer | 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 | 01/06/2023 | Version Number | 1.0 | |

Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

| | | | |
|----------------------|----------------------|----------|---|
| Prerequisite module | Analytical Chemistry | Semester | 1 |
| Co-requisites module | | Semester | |

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

| | |
|---|--|
| Module Objectives أهداف المادة الدراسية | The students will acquire a broad understanding of the knowledge base in Organic Chemistry and its terminology or discourse. They will operate in a range of varied but predictable contexts that require the use of a specified range of techniques and information sources. The student will be required to identify principles and concepts underlying theoretical frameworks. The student will take responsibility for the nature and quality of outputs through defined problem classes. |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | At the end of this module students should be able to: <ul style="list-style-type: none"> • Introduction to organic chemistry, bonding, hybridization, resonance and delocalization. • Functionality, nomenclature, structure of functional groups affecting their reactivity. • Conformation of straight chain alkanes, structural isomers. • Configuration, chirality, enantiomers/diastereomers, Cahn-Ingold-Prelog priority rules (R/S) and Fischer/Newman projections. • Hydrocarbon rings, strain energy and effect of substitution, chair and boat cyclohexane, conjugation and role of cyclization in benzene aromaticity. |

| | |
|---|--|
| Indicative Contents المحتويات الإرشادية | <p>The module will include:</p> <ol style="list-style-type: none"> 1. General concepts in organic chemistry for predicting atom and electronic structure of molecules, stability, reactivity and molecular properties (bond strength, pH etc.) 2. General concepts and mechanisms underlying organic reactions and ability to draw the mechanism for a given reaction or to give reagents required for an organic reaction. <p>Throughout the course examples will be provided to link the underlying concepts and reactions with biological (e.g. metabolism) and pharmaceutical design (e.g. drugs).</p> |
|---|--|

| Learning and Teaching Strategies استراتيجيات التعلم والتعليم | |
|--|---|
| Strategies | <p>Lessons of all units will be offered in an interactive lecture where student participation is mandatory either by forming small group discussion in class, exchange ideas and question one another. Where applicable students will be assigned problems to solve and encouraged to assess one another. Learning material will be supplied to students in class or uploaded on Blackboard learning management system. Students will also be regularly referred to relevant section of the prescribed text book. Most of the tutorial work will be done as self-study or with the assistance of a tutor. The teacher will facilitate lectures and laboratory experiment sessions with the assistance of a tutor or laboratory demonstrator. Assessment will be both formative and summative. Formative assessment refers to assessment whose purpose is to monitor student learning but will not be graded. Summative assessment refers to assessment given to students for grading such as theory tests, practical tests and examination.</p> |

| Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا | | | |
|--|-----|---|-----|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل | 79 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا | 5.2 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل | 96 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا | 6.4 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 175 | | |

| Module Evaluation تقييم المادة الدراسية | | | | | |
|---|-----------------|-------------|----------------|----------------|---------------------------|
| | | Time/Number | Weight (Marks) | Week Due | Relevant Learning Outcome |
| Formative assessment | Quizzes | 2 | 10% (10) | 5 and 10 | LO #1, #2 and #10, #11 |
| | Assignments | 2 | 10% (10) | 2 and 12 | LO #3, #4 and #6, #7 |
| | Projects / Lab. | 1 | 10% (10) | Continuou s | All |
| | Report | 1 | 10% (10) | 13 | LO #5, #8 and #10 |
| Summative | Midterm | 2hr | 10% (10) | 7 | LO #1 - #7 |

| | | | | | |
|------------------|------------|-----|------------------|----|-----|
| assessment | Exam | | | | |
| | Final Exam | 3hr | 50% (50) | 16 | All |
| Total assessment | | | 100% (100 Marks) | | |

| Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري | |
|--|--|
| | Material Covered |
| Week 1 | Hydrocarbons |
| Week 2 | IUPAC name of alkanes |
| Week 3-4 | Coupling of alkyl halides with organometallic compound |
| Week 5-6 | Preparation of alkenes |
| Week 7 | Addition of halogen bromide. Peroxide effect |
| Week 8 | Oxidation of tributylborane gives butanol . |
| Week 9 | Free – radical polymerization of alkene |
| Week 10- | Mid exam |
| Week 12 | AROMATIC COMPOUND |
| Week 13 | Representation of benzene ring |
| Week 14 | Polysubstituted Benzenes |
| Week 15 | Determination of orientation:- |

| Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر | |
|--|--|
| | Material Covered |
| Week 1 | Lab1 Boiling point Definition |
| Week 2 | Lab2 Experimental Procedures Boiling Point |
| Week 3 | Lab3 Distillation |
| Week 4 | Lab4 Types of Distillation: |
| Week 5 | Lab5 PROCEDURE Distillation |
| Week 6 | Lab6 Extraction |
| Week 7 | Lab7 Procedure Extraction |
| Week 8 | Mid exam |
| Week 9 | Lab8 Definition Melting Point |
| Week 10 | Lab9 Procedure: Melting Point |
| Week 11 | Lab10 Recrystallization: Purification of Crystalline Organic Compounds |
| Week 12 | Lab11 Procedure: Recrystallization |
| Week 13 | Lab12 Sublimation |
| Week 14 | Lab13 Procedure Sublimation |
| Week 15 | Final exam |

| Learning and Teaching Resources مصادر التعلم والتدريس | | |
|--|------|------------------|
| | Text | Available in the |

| | | Library? |
|--------------------------|---|----------|
| Required Texts | The foundations of analytical chemistry, part one and two, by Dr. Moayad Al-Abaiji | Yes |
| Recommended Texts | 1. Basset, J.et.al, Trans. By A Hadyana Pudjaatmaka dan L. Setiono, 1994, 2. Vogel, Quantitative Inorganic Analysis, 4th Ed., Jakarta: Penerbit Buku Kedokteran E G C. Svehla, G. & Vogel, A.L., Trans. By Setiono, 1985, 3. A Quantitative Inorganic Analysis, 3rd Ed., New York: John Wiley & Sons Inc. Skoog, D.A. & West, D.M., 1990 4. Analytical Chemistry, 5th Ed., Philadelphia: Saunders Golden Sunburst Series | YES |
| Websites | www.chemicalprocessing.com | |

| 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 |
| | | | | |
| 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. | | | | |

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | | |
|------------------------------------|---------------------------|----------------------|--|---------------------------|
| معلومات المادة الدراسية | | | | |
| Module Title | Biostatistics | | Module Delivery | |
| Module Type | Basic | | <input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar | |
| Module Code | Bio-1213 | | | |
| ECTS Credits | 5 | | | |
| SWL (hr/sem) | 130 | | | |
| Module Level | UGx11 1 | Semester of Delivery | | 2 |
| Administering Department | Type Dept. Code | College | Type College Code | |
| Module Leader | Dr. Anwar Nouruddin Imran | | e-mail | anwarmath@uodiyala.edu.iq |
| Module Leader's Acad. Title | Assistant Professor | | 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 | 01/06/2023 | | Version Number | 1.0 |

| Relation with other Modules | | | |
|-----------------------------------|---------------------|----------|---|
| العلاقة مع المواد الدراسية الأخرى | | | |
| Prerequisite module | General Mathematics | Semester | 1 |
| Co-requisites module | None | Semester | |

| Module Aims, Learning Outcomes and Indicative Contents | |
|--|--|
| أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية | |
| Module Objectives أهداف المادة الدراسية | <ul style="list-style-type: none"> To discuss and critic reports and articles applying biostatistics to epidemiology To conduct preliminary/simple statistical analysis and to plan more sophisticated future statistical analyses To work with scientific experts including biostatisticians, epidemiologists and public health professionals |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | <ol style="list-style-type: none"> Extract the most useful/important information from scientific articles Interpret graphical summaries and statistical tables Criticize the statistics of simple epidemiological studies Describe the study population using the appropriate indicators Formulate statistical hypothesis according to the objective aimed by the study Apply the statistical test using the R or STATA software and to interpret the results Measure the strength of the association between two quantitative or qualitative variables and interpret it Summarize statistical results and to write the material, methods and result sections of a report/article. |

| | |
|---|---|
| Indicative Contents المحتويات الإرشادية | Indicative content includes the following. Introduction and Some Basic Concept, Statistical, Population, Sample, Random Sampling View Data, Frequency Distribution Table Measures of Central Tendency, Median, Mode Scale of variance, rang, variance, Standard deviation, Standard error, coefficient of variance Random Variable, discrete random variable, continuous random variable Distribution, Binomial Distribution, Normal Distribution Mathematical expectation concept Significance difference test Regression, correlation coefficient Exercises and discussion Type of distribution, discrete distribution, continuous distribution What is the distribution theory Preparatory week before the final Exam |
|---|---|

| 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 sampling activities that are interesting to the students. |

| Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ 15 اسبوعا | | | |
|--|-----|---|---|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل | 63 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا | 4 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل | 62 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا | 4 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 125 | | |

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

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

| | Material Covered |
|----------------|--|
| Week 1 | Concepts Fundamental |
| Week 2 | Presentation of Data |
| Week 3 | Measures of Central Tendency |
| Week 4 | Measures of Dispersion |
| Week 5 | The distributions, the binomial distribution, normal distribution |
| Week 6 | Statistical tests: T test, Z test, X test, F test |
| Week 7 | Analysis of variance, experiment, unit experimental, treatment, refined, degrees of freedom, total squares, mean Squares |
| Week 8 | Regression, correlation coefficient |
| Week 9 | SPSS statistical program introduction and definition |
| Week 10 | Introducing SPSS tools |
| Week 11 | Application analysis examples of laboratory experiments using the SPSS program |
| Week 12 | Methods of expressing the statistical results of biological experiments Variance |
| Week 13 | Analysis of Variance |
| Week 14 | Some Special Probability distributions |
| Week 15 | Final Exam |

Learning and Teaching Resources

مصادر التعلم والتدريس

| | Text | Available in the Library? |
|--------------------------|---|----------------------------------|
| Required Texts | Hogg, R. V., McKean, J. W., & Craig, A. T. (2019). Introduction to mathematical statistics. Pearson. | Yes |
| Recommended Texts | Antonisamy, B., Premkumar, P. S., & Christopher, S. (2017). Principles and Practice of Biostatistics-E-book. Elsevier Health Sciences. | Yes |
| Websites | https://www.sciencedirect.com/topics/medicine-and-dentistry/biostatistics | |

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 |
| | | | | |

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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | | |
|------------------------------------|-------------------------------|----------------------|--|-------------------------------|
| معلومات المادة الدراسية | | | | |
| Module Title | Safety and Biosecurity | | Module Delivery | |
| Module Type | Supporter | | <input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar | |
| Module Code | Bio-1204 | | | |
| ECTS Credits | 3 | | | |
| SWL (hr/sem) | 75 | | | |
| Module Level | 1 | Semester of Delivery | | 2 |
| Administering Department | Type Dept. Code | College | Type College Code | |
| Module Leader | Ibtihal Hameed Mohsin | | e-mail | ibtihalhameed@uodiyala.edu.iq |
| Module Leader's Acad. Title | Assistant Professor | | Module Leader's Qualification | Ph.D. |
| Module Tutor | | | e-mail | E-mail |
| Peer Reviewer Name | Name | | e-mail | E-mail |
| Scientific Committee Approval Date | 01/06/2023 | | 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 الإرشادية | |
| Module Objectives أهداف المادة الدراسية | <p>The basic objective of a biosafety program is the containment of potentially harmful biological agents. The purpose of containment is to reduce or eliminate exposure of laboratory workers, other persons, and the outside environment to potentially hazardous agents:</p> <ul style="list-style-type: none"> Identify relevant biosafety regulations and documentation Apply biosafety and biosecurity concepts in the laboratory setting Organize laboratory space according to its biosafety level Select appropriate equipment for the biosafety level of their laboratory Manage biosafety-related risks in their laboratory |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | <p>Biosafety and biosecurity address the safe handling and containment of infectious microorganisms and hazardous biological materials in the laboratory setting. Whereas biosafety aims at protecting public health and the environment from accidental exposure to biological agents, biosecurity deals with the prevention of misuse through loss, theft, diversion, or intentional release of pathogens, toxins, and any other biological materials.</p> |
| Indicative Contents المحتويات الإرشادية | <p>Indicative content includes the following.</p> <p>A. Cognitive goals</p> <p>A1-The first level // Knowledge development // Develop the student's ability to</p> |

| | |
|--|--|
| | <p>recall what he learned about biosafety and enable students to obtain knowledge and understanding of the intellectual and applied framework in the biosafety and biosecurity.</p> <p>A2-The second level // Improving comprehension level // Developing the ability to interpret, predict and deduce and enable students to obtain knowledge and understanding of the requirements in biological risks in lab.</p> <p>A3-The third level // Developing applied abilities (Application) // Informing students of modern protocols in Biohazardous Waste and risk assessment.</p> <p>A4-The fourth level // provide the student with the ability to analyze (analysis) // enable students to gain knowledge in safety.</p> <p><u>B. objectives and skills</u></p> <p>B1- Providing students with the additional basics related to the outputs of thinking and analysis.</p> <p>B2- Learn experimentation.</p> <p>B3- Improving the student's ability in observation.</p> <p>B4- Learn how to imitate and simulate.</p> <p><u>C. Emotional and value goals</u></p> <p>C1- Asking general questions during the theoretical lessons.</p> <p>C2- Assign students to report on various topics of biosafety.</p> <p>C3- Enable students to apply the protocols of biosecurity in lab.</p> |
|--|--|

| Learning and Teaching Strategies استراتيجيات التعلم والتعليم | |
|---|--|
| Strategies | <p>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 sampling activities that are interesting to the students.</p> |

| Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا | | | |
|---|----|---|---|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل | 48 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا | 3 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل | 27 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا | 2 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 75 | | |

| Module Evaluation تقييم المادة الدراسية | | | | | |
|--|------------------------|-------------|----------------|----------------|---------------------------|
| | | Time/Number | Weight (Marks) | Week Due | Relevant Learning Outcome |
| Formative assessment | Quizzes | 2 | 10% (10) | 5 and 10 | LO #1, #2 and #10, #11 |
| | Assignments | 2 | 10% (10) | 2 and 12 | LO #3, #4 and #6, #7 |
| | Projects / Lab. | 1 | 10% (10) | Continuou s | All |

| | | | | | |
|-----------------------------|---------------------|-----|------------------|----|-------------------|
| | Report | 1 | 10% (10) | 13 | LO #5, #8 and #10 |
| Summative assessment | Midterm Exam | 2hr | 10% (10) | 7 | LO #1 - #7 |
| | Final Exam | 3hr | 50% (50) | 16 | All |
| Total assessment | | | 100% (100 Marks) | | |

| Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري | |
|---|--|
| | Material Covered |
| Week 1 | Biohazard Definition |
| Week 2 | Rules, Regulations & Guidelines |
| Week 3 | Risk Assessment |
| Week 4 | Biological Safety and Biosafety Levels |
| Week 5 | The Biosafety Level 1 Laboratory |
| Week 6 | The Biosafety Level 2 Laboratory |
| Week 7 | Biological Safety Level 3 Laboratories |
| Week 8 | Mid Exam |
| Week 9 | Laboratory Biosecurity |
| Week 10 | Safety Equipment |
| Week 11 | Decontamination and waste management |
| Week 12 | Biohazardous Waste |
| Week 13 | Biohazard Spill Clean-Up Procedures |
| Week 14 | Use of Animals, Human Subjects and Materials in Research |
| Week 15 | Final Exam |

| Learning and Teaching Resources مصادر التعلم والتدريس | | |
|---|---|----------------------------------|
| | Text | Available in the Library? |
| Required Texts | Salerno, R. M., & Gaudioso, J. (Eds.). (2015). <i>Laboratory biorisk management: biosafety and biosecurity</i> . CRC Press. | Yes |
| Recommended Texts | Burnette, R. (2013). <i>Biosecurity: understanding, assessing, and preventing the threat</i> . John Wiley & Sons. Karus, A., Praakle, K., Saar, T., Must, K., Randoja, H., & Viltrop, A. (2018). Biosafety and biosecurity manual. Zhou, D., Song, H., Wang, J., Li, Z., Xu, S., Ji, X., ... & Xu, J. (2019). Biosafety and biosecurity. <i>Journal of biosafety and biosecurity</i> , 1(1), 15-18. | No |
| Websites | https://www.cdc.gov/safelabs/resources-tools/biosafety-resources-and-tools.html | |

| 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 |
| | | | | |

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.

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information معلومات المادة الدراسية | | | |
|---|-------------------------|-------------------------------|--|
| Module Title | Computer Skills | | Module Delivery |
| Module Type | Basic | | <input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar |
| Module Code | UD03 | | |
| ECTS Credits | 4 | | |
| SWL(hr/sem) | 100 | | |
| Module Level | 1 | Semester of Delivery | |
| Administering Department | Science and Engineering | College | College of Engineering College of Science |
| Module Leader | | e-mail | |
| Module Leader's Acad. Title | | Module Leader's Qualification | |
| Module Tutor | | e-mail | |
| Peer Reviewer Name | | e-mail | |
| Scientific Committee Approval Date | 21/11/2023 | 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

| | |
|---|--|
| Module Objectives أهداف المادة الدراسية | <ol style="list-style-type: none"> 1. Training students on the basics of using the computer and providing them with the necessary skills to deal with the computer with high efficiency. 2. Assisting the student in distinguishing and developing his\ her scientific and artistic abilities. 3. Enriching the student's skills to be able to deal with the computer with high efficiency. 4. Providing students with away to use other modern technologies related to the educational process. |
|---|--|

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|--|---|
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | 1. Enabling the student to know the concepts of information technology by learning the basics of the computer. 2. Enabling the student to know about the use of GUI operating systems. 3. Enabling the student to deal with the skills of using the operating system (Windows operating system) through exploring, customizing, and controlling its settings. 4. Enabling the student to work on the word processing program (Microsoft Word). 5. Enabling the student to work on the spreadsheet program (Microsoft Excel). 6. Enabling the student to work on the presentation program (Microsoft PowerPoint). |
| Indicative Contents المحتويات الإرشادية | Indicative content includes the following. <ul style="list-style-type: none"> • Course introduction(4hrs) • Working with GUI operating systems with a focus on Microsoft Windows OS • Microsoft Office Word(MS Word) • Microsoft Office Excel(MS Excel) • Microsoft Office PowerPoint(MS PowerPoint) |
| Description | Overview of computers: basic components, applications. GUI operating systems: Microsoft Windows operating system. Microsoft Office Word: getting started with Word, editing a document and formatting text and paragraphs, adding tables and inserting graphic objects, controlling page appearance and proofing a document. Microsoft Office Excel: getting started with Excel, sorting, selecting and subtotaling data, formulas and functions, worksheet formatting and presentation. Microsoft Office PowerPoint: getting started with PowerPoint, developing a PowerPoint presentation, adding graphical elements to your presentation and modifying objects in your presentation, adding graphical elements, tables and charts to your presentation and modifying objects in your presentation, prepare to deliver your presentation. |

Learning and Teaching Strategies

استراتيجيات التعلم و التعليم

| | |
|-------------------|---|
| Strategies | In this course, students are guided by: <ul style="list-style-type: none"> • Using different examples. • Using different styles of discussion that aim to connect the theoretical and practical sides. • Asking questions and giving exercises that require analysis and conclusions related to lectures. • Encourage students to participate in discussions and do the practical work. • Encourage students to work in groups. |
|-------------------|---|

Student Workload(SWL)

الحمل الدراسي للطلاب محسوبة لـ 15 اسبوع

| | | | |
|---|-----------|--|----------|
| Structured SWL(h/sem) الحمل الدراسي المنتظم للطلاب خلال الفصل | 64 | Structured SWL(h/w) الحمل الدراسي المنتظم للطلاب اسبوعيا | 4 |
|---|-----------|--|----------|

| | | | |
|--|------------|---|------------|
| Unstructured SWL (h/sem) الحمل الدراسي اللامنتظم للطالب خلال الفصل | 36 | Unstructured SWL(h/w) الحمل الدراسي اللامنتظم للطالب خلال الفصل أسبوعيا | 2.4 |
| 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) | 6 and 12 | |
| | Assignments | 2 | 10%(10) | 2 and 13 | |
| | Projects/ Lab. | 1 | 10%(10) | Continuous | All |
| | Report | 1 | 10%(10) | 13 | |
| Summative assessment | Midterm Exam | 2hr | 10%(10) | 9 | |
| | Final Exam | 3hr | 50%(50) | 16 | All |
| Total assessment | | | 100%(100Marks) | | |

Delivery Plan (Weekly Syllabus)

المنهاج الأسبوعي النظري

| | Material Covered |
|----------------|---|
| Week1 | Overview of computers and their basic components and applications |
| Week2 | Introduction to windows operations system |
| Week3 | Operation System properties, Difference between OS,program ,software , application |
| Week4 | Network and internet (setting ,www, Email, search Engine) |
| Week5 | Microsoft Office Word: Editing a Document and Formatting Text and Paragraphs |
| Week6 | Microsoft Office Word: Adding Tables and Inserting Graphic Objects |
| Week7 | Microsoft Office Word: Controlling Page Appearance and Proofing a Document |
| Week8 | Microsoft Office Excel: Getting Started with Excel |
| Week9 | Microsoft Office Excel: Sorting, Selecting and Sub totaling data |
| Week 10 | Microsoft Office Excel: Formulas and Functions |
| Week 11 | Microsoft Office Excel: Worksheet Formatting and Presentation |
| Week 12 | Microsoft Office Power Point: Getting Started with Power Point |
| Week 13 | Microsoft Office Power Point: Developing a PowerPoint Presentation, Adding Graphical Elements to Your Presentation and Modifying Objects in Your Presentation |
| Week 14 | Microsoft Office Power Point: Adding Graphical Elements, tables and charts to Your Presentation and Modifying Objects in Your Presentation |
| Week 15 | Microsoft Office Power Point: Prepare to deliver your presentation |

| | |
|----------------|--|
| Week 16 | Preparatory week before the final exam |
|----------------|--|

| Delivery Plan (Weekly-Lab Syllabus) المنهاج الأسبوعي للمختبر | |
|--|---|
| | Material Covered |
| Week1 | Overview of computers and their basic components and applications |
| Week2 | Introduction to windows operations system |
| Week3 | Operation System properties, Difference between OS,program ,software , application |
| Week4 | Network and internet (setting ,www, Email, search Engine) |
| Week5 | Microsoft Office Word: Editing a Document and Formatting Text and Paragraphs |
| Week6 | Microsoft Office Word: Adding Tables and Inserting Graphic Objects |
| Week7 | Microsoft Office Word: Controlling Page Appearance and Proofing a Document |
| Week8 | Microsoft Office Excel: Getting Started with Excel |
| Week9 | Microsoft Office Excel: Sorting, Selecting and Sub totaling data |
| Week 10 | Microsoft Office Excel: Formulas and Functions |
| Week 11 | Microsoft Office Excel: Worksheet Formatting and Presentation |
| Week 12 | Microsoft Office Power Point: Getting Started with Power Point |
| Week 13 | Microsoft Office Power Point: Developing a PowerPoint Presentation, Adding Graphical Elements to Your Presentation and Modifying Objects in Your Presentation |
| Week 14 | Microsoft Office Power Point: Adding Graphical Elements, tables and charts to Your Presentation and Modifying Objects in Your Presentation |
| Week 15 | Microsoft Office Power Point: Prepare to deliver your presentation |
| Week 16 | Preparatory week before the final exam |

| Learning and Teaching Resources مصادر التعلم والتدريس | | |
|---|--|---------------------------|
| | Text | Available in the Library? |
| Required Texts | <ul style="list-style-type: none"> JoanLambertandSteveLambert,Windows10stepbystep, 1st Edition 2015. JoanLambertandCurtisFrye,MicrosoftOffice2016stepbystep, 1stEdition2015. | Yes |
| Recommended Texts | <ul style="list-style-type: none"> Michael Miller, ABSOLUTE BEGINNER'S GUIDE TO COMPUTERBASICS,5thEDITION,QUEIndianapolis,Indiana 46240, 2010. PaulMcFedries,TEACHYOURSELFVISUALLY MICROSOFT WINDOWS 10, ANNIVERSARY | No |
| Websites | https://support.microsoft.com/en-us/products https://www.goskills.com/Microsoft-Office | |

| 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 |
| | | | | |
| 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. | | | | |

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

| Module Information | | | | |
|------------------------------------|-----------------------------------|-------------------------------|------------------------|--|
| معلومات المادة الدراسية | | | | |
| Module Title | New Headway Plus/ Beginner | | | Module Delivery |
| Module Type | Basic | | | <input checked="" type="checkbox"/> Theory <input checked="" type="checkbox"/> Lecture <input type="checkbox"/> Lab <input type="checkbox"/> L Tutorial <input type="checkbox"/> Practical <input type="checkbox"/> Seminar |
| Module Code | UD01 | | | |
| ECTS Credits | 2 | | | |
| SWL (hr/sem) | 50 | | | |
| Module Level | UGI | Semester (s) offered | 1 | |
| Administering Department | All Departments | College | College of Engineering | |
| Module Leader | | e-mail | | |
| Module Leader's Acad. Title | | Module Leader's Qualification | MSc. | |
| Module Tutor | | e-mail | | |
| Peer Reviewer Name | | e-mail | | |
| Scientific Committee Approval Date | 22/11/2023 | 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, Indicative Contents and Brief Description | | | |
| أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية مع وصف مختصر | | | |
| Module Aims أهداف المادة الدراسية | The module aims to develop the students' English skills in reading, writing, listening and speaking. | | |
| Module Learning Outcomes مخرجات التعلم للمادة الدراسية | 1. Read and understand simple texts in English. 2. Answer simple comprehension questions and match sentences about texts. 3. Reconstruct texts by reordering sentences. 4. Understand the main idea of a text. 5. Identify specific information in a text. 6. Writing and paraphrasing paragraphs. | | |
| Indicative Contents المحتويات الإرشادية | Indicative content includes the following. i) Grammar has a core place in language teaching and learning. ii) A wide variety of practice tasks in all the four skills are essential to language learning. iii) Everyday expressions, particularly of spoken English, also need a place in the syllabus. These can be functional, social, situational or idiomatic. | | |
| Course Description | Each unit is organized to enhance students' basic knowledge of vocabulary and grammar through reading texts. The students will learn how to form simple sentences and use them in real life situations as well as in writing different assignments. By the end of the course, students will be able to produce basic sentences and communicate in simple real-life situations. | | |

| Learning and Teaching Strategies استراتيجيات التعلم والتعليم | |
|---|---|
| Strategies | Headway's trusted methodology combines solid grammar and practice, vocabulary development, and integrated skills with communicative role-plays and personalization. Authentic material from a variety of sources enables students to see new language in context, and a range of comprehension tasks, language and vocabulary exercises, and extension activities practice the four skills. 'Everyday English' and 'Spoken grammar' sections practice real-world speaking skills, and a writing section for each unit at the back of the book provides models for students to analyze and imitate. |

| Student Workload (SWL) الحمل الدراسي للطالب | | | |
|--|-----------|--|------------|
| Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل In class lectures 26 In class tests 5 Seminars 2 | 33 | Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً | 2 |
| Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل Library, dorm, home memorizing 5 Preparation for tests 8 Homework 4 | 17 | Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً | 1.1 |
| Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل | 50 | | |

| Module Evaluation تقييم المادة الدراسية | | | | | |
|--|---------------------|-----------|-------------------------|--------------------|---------------------------|
| | | Time (hr) | Weight (Marks) | Week Due | Relevant Learning Outcome |
| Formative assessment | Quizzes | 2 | 5% (5) | 5, 10, 12, 15 | All |
| | Assignments | 6 | 20% (20) | 2, 4, 6, 8, 10, 12 | LO # 1, 3, 4, 5 and 6 |
| | Seminars | 2 | 5% (5) | Continuous | LO # 1-5 |
| Summative assessment | Midterm Exam | 2 | 20% (10) | 7 | LO # 1-3 |
| | Final Exam | 3 | 50% (50) | 16 | All |
| Total assessment | | | 100% (100 Marks) | | |

| Delivery Plan (Weekly Syllabus) المناهج الأسبوعي النظري | |
|--|---|
| | Material Covered |
| Week 1 | GRAMMAR, READING, MAIN COURSE SPEAKING, LISTENING, VOCABULARY am/is/are my/your This is... Introduction dialogues, Everyday English dialogues Introductions, Good morning! Practicing introduction dialogues. People meet each other and introduce someone else. How are you? What's this in English? Numbers 1-10 and plurals. |
| Week 2 | He/she/they His/her. Questions Where are they from? Two people are on holiday in New York. Students ask and answer questions about where people are from. Countries, Numbers 10-20, 11-30. A set of cities and countries: Brazil, Spain... Adjectives: awful, really good, fantastic, beautiful Nouns: centre, hospital, building, park |

| | |
|----------------|---|
| Week 3 | Verb to be is recycled and extended to include negative and question forms. We're in Las Vegas! Roleplay: in a band. An interview with the band Metro 5. Jobs: a nurse, a doctor. Personal information: surname, first name, address, married ... Social expressions: I'm sorry, thanks, please... |
| Week 4 | Possessive adjectives. Possessive 's. Has/ have Adjective + noun Irregular Plurals Paddy McNab and his family, My best friend. The alphabet, On the phone, Saying email addresses. Who are they? Listen and identify the people. The family: mother, son. Describing a friend: very beautiful, really funny... |
| Week 5 | Present Simple: I/you/we/they a/an Adjective + noun Colin Brodie from Dundee. Role play: At a party. Where is Colin? Who is he with? At a party: Flavia and Terry are at a party in London. The lexical set of sports/food/drinks. Languages and nationalities. |
| Week 6 | Present Simple: He/she Question and negatives Adverbs of frequency Prepositions of time Lois Maddox Talking about daily routines, Asking and answering questions about daily routines, Lifestyle questionnaire Listening a phone conversation between Lois and Elliot. Days of the week. The time. Words that go together: watch TV, get up early... |
| Week 7 | Question words Subject Pronouns Object Pronouns Possessive Pronouns This and that A postcard from San Francisco, A holiday postcard. Describing lifestyles, preferences and places, Roleplay: conversations in town. Listening the requests with Can I.....? Adjectives: lovely, terrible, comfortable, friendly... Opposite adjectives: new/old, big/small Places: chemist, post office |
| Week 8 | There is /are Prepositions: in, on, under, next to Vancouver-the best city in the world, What to do and where to go. Talking and asking about rooms and furniture, Giving directions. My home town, Steve talks about living in Vancouver. Rooms and furniture: living room, bedroom ... In and out of town: beach, mountain, sailing,... |
| Week 9 | Was/were born Past simple: irregular verbs It's a Jackson Pollock. Telling a story from pictures, Saying the dates in English. Magalie Dromand, Magalie dromand talks about her family. Saying years People and jobs Irregular verbs Have, do, go: have lunch, do homework, go shopping |
| Week 10 | Past simple: regular and irregular Questions Negatives Ago Dialogues with simple past. Did you have a good weekend? Asking about holidays, A questionnaire, My last holiday, Roleplay: asking and giving directions. Angie and Rick are at work, Jack and Millie's holiday. Weekend activities: go to the cinema, have a meal... Time expressions: on Monday, last night... Sports and leisure: tennis, skiing, windsurfing... Play or go: play tennis, go skiing... Seasons: winter, summer... |
| Week 11 | Can / can't, Adverbs, Adjective + noun Requests and offers The Internet, what can you do on the internet? Talking about what you can do, talking about everyday problems, Five people talk about what they do on the internet. Verbs: draw, run, drive... Verb noun: Listen to the radio, chat to friends Adjective noun: fast car, busy city, dangerous sport Opposite adjectives: dangerous/ safe, old/modern, old/young. |
| Week 12 | I'd like, You are what you eat, Discussion-what is a good diet? Conversation with Adam, Shopping: bread, milk, fruit, Please and thank you Some /any, Like and would like People from different parts of the world describe what they eat. Roleplay: Ordering a meal. Birthday wishes, what people want on their birthday. stamps, cheese, ham... Food: cereal, salad, pasta, fish... In a restaurant: menu, starter, desert, soup, salmon |
| Week 13 | Present continuous, Present simple and present continuous. This week is different, Colin, a millionaire, gives money to homeless teenagers What's the matter? Why don't you? What is Nigel wearing? Nigel is on holiday, What's the matter. Colors: blue, red, green... Clothes: jacket, trousers, shoes and socks... Opposite verbs: buy/sell, love/hate, open/close... |
| Week 14 | Future plans, Revision: question words, tenses. Seven countries in seven days, Life's big events: three people talk about their family, education, work and ambitions. A mini |

| | |
|----------------|--|
| | autobiography. Eddie is talking to a friend about his holiday plans, social expressions Transport: travel by bus, coach, motorbike, plane... Revision |
| Week 15 | Irregular verbs, phonetic symbols, consonants and vowels. |

| Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر | |
|---|------------------|
| | Material Covered |
| Week 1 | |
| Week 2 | |
| Week 3 | |
| Week 4 | |
| Week 5 | |
| Week 6 | |
| Week 7 | |

| Learning and Teaching Resources مصادر التعلم والتدريس | | |
|---|---|---------------------------|
| | Text | Available in the Library? |
| Required Texts | New Headway Beginner, by lizand john soars | Yes |
| Websites | https://www.learnenglish.de/ https://www.englishgrammar.org/ https://www.phrasebank.manchester.ac.uk/ | |

| 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 | مقبول بقرار | (45-49) | More work required but credit awarded |
| | F – Fail | راسب | (0-44) | Considerable amount of work required |
| | | | | |

Note:

NB 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.