## **Study Plan**

### **Academic Year-1**

#### **Level-1**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Code** | **Course Title** | **R/E** | **Pre-Requisite Courses Code** | **Credit Unit** | **Contact Unit** | | | **Type of Requirements** | **Course Name in Arabic** |
| **Theory** | **Lab** | Other |
| **CHEM101** | **General Chemistry (1)** | **R** | **------** | **4** | **3** | **2** |  | **College** | **كيمياء عامة (1)** |
| **BIO101** | **General Biology (1)** | **R** | **------** | **4** | **3** | **2** |  | **College** | **أحياtء عامة (1)** |
| **STAT131** | **Introduction to Statistics** | **R** | **------** | **3** | **3** | **0** |  | **College** | **مقدمة في الإحصاء** |
| **LNGT101** | **English (1)** | **R** | **------** | **3** | **3** | **0** |  | **College** | **لغة انجليزية (1)** |
| **IT100** | **Digital Culture** | **R** | **------** | **2** | **2** | **0** |  | **Institution,** | **الثقافة الرقمية** |
| **xxxxxxx** | **University Elective. (1)** | **E** | **------** | **2** | **2** | **0** |  | **Institution** | **اختياري جامعة (1)** |
| **Total** | | | | 18 | 16 | 4 |  | **الإجمالي** | |

R/E: Required/ Elective. Type of requirements: Institution/ College/ Program. Other: can be Tutorial/Clinical

#### **Level-2**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Code** | **Course Title** | **R/E** | **Pre-Requisite Courses Code** | **Credit Unit** | **Contact Unit** | | | **Type of Requirements** | **Course Name in Arabic** |
| **Theory** | **Lab** | Other |
| **PHYS101** | **General Physics1** | **R** | **------** | **4** | **3** | **2** |  | **College** | **فيزياء عامة (1)** |
| **MATH101** | **Calculus (1)** | **R** | **------** | **4** | **3** | **1** |  | **College** | **حساب التفاضل والتكامل (1)** |
| **CS 103** | **Programming (1)** | **R** | **------** | **3** | **2** | **2** |  | **College** | **برمجة 1** |
| **LNGT102** | **English (2)** | **R** | **LNGT101** | **3** | **3** | **0** |  | **College** | **لغة انجليزية (2)** |
| **GNCR100** | **University skills** | **R** | **------** | **2** | **2** | **0** |  | **Institution,** | **المهارات الجامعية** |
| **ISLSxxx** | **Islamic Culture (1)** | **R** | **------** | **2** | **2** | **0** |  | **Institution** | **ثقافة إسلامية (1) \*** |
| **Total** | | | | 18 | 15 | 5 |  | **الإجمالي** | |

### **Academic Year-2**

#### **Level-3**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Code** | **Course Title** | **R/E** | **Pre-Requisite Courses Code** | **Credit Unit** | **Contact Unit** | | | **Type of Requirements** | **Course Name in Arabic** |
| **Theory** | **Lab** | Other |
| **BIO211** | **Laboratory preparation** | **R** | **BIO101** | **1** | **0** | **2** |  | **Program** | **تحضيرات معملية** |
| **BIO222** | **Cell Biology** | **R** | **BIO101** | **3** | **2** | **2** |  | **Program** | **بيولوجيا الخلية** |
| **BIO223** | **Genetics** | **R** | **BIO101** | **3** | **2** | **2** |  | **Program** | **علم الوراثة** |
| **BIO231** | **General Microbiology** | **R** | **BIO101** | **3** | **2** | **2** |  | **Program** | **علم الاحياء الدقيقة العام** |
| **BIO241** | **General Botany** | **R** | **BIO101** | **3** | **2** | **2** |  | **Program** | **علم النبات العام** |
| **ISLSxxx** | **Islamic Culture (2)** | **R** | **------** | **2** | **2** | **0** |  | **Institution** | **ثقافة إسلامية (2) \*** |
| **Total** | | | | 15 | 10 | 10 |  | **الإجمالي** | |

#### **Level-4**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Code** | **Course Title** | **R/E** | **Pre-Requisite Courses Code** | **Credit Unit** | **Contact Unit** | | | **Type of Requirements** | **Course Name in Arabic** |
| **Theory** | **Lab** | **Other** |
| **BIO251** | **General Zoology** | **R** | **BIO101** | **3** | **2** | **2** |  | **Program** | **علم الحيوان العام** |
| **BIO224** | **Biochemistry** | **R** | **CHEM101-BIO101** | **3** | **2** | **2** |  | **Program** | **كيمياء حيوية** |
| **BIO225** | **Molecular Biology** | **R** | **BIO222-BIO223** | **3** | **2** | **2** |  | **Program** | **بيولوجيا جزيئية** |
| **BIO226** | **Analytical Chemistry** | **R** | **CHEM101** | **3** | **2** | **2** |  | **Program** | **كيمياء تحليلية** |
| **XXXX** | **College Elective. (1)** | **E** | **------** | **2** | **2** | **0** |  | **College** | **اختياري كلية (1)** |
| **Xxxxxxx** | **University Elective. (2)** | **E** | **------** | **2** | **2** | **0** |  | **Institution** | **اختياري جامعة (2)** |
| **Total** | | | | **16** | **12** | **8** |  | **الاجمالي** | |

### **Academic Year-3**

#### **Level-5**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Code** | **Course Title** | **R/E** | **Pre-Requisite Courses Code** | **Credit Unit** | **Contact Unit** | | | **Type of Requirements** | **Course Name in Arabic** |
| **Theory** | **Lab** | Other |
| **BIO321** | **Cellular Metabolism** | **R** | **BIO224** | **3** | **3** | **0** |  | **Program** | **الايض الخلوي** |
| **BIO322** | **Enzymology** | **R** | **BIO224** | **3** | **2** | **2** |  | **Program** | **علم الانزيمات** |
| **BIO361** | **Principles of Biotechnology and Genetic Engineering.** | **R** | **BIO225** | **3** | **2** | **2** |  | **Program** | **اساسيات التكنولوجيا الحيوية والهندسة الوراثية** |
| **BIO362** | **Applied Mycology.** | **R** | **BIO231** | **3** | **2** | **2** |  | **Program** | **علم الفطريات التطبيقي** |
| **BIO363** | **Applied Bacteriology.** | **R** | **BIO231** | 3 | 2 | 2 |  | **Program** | **علم البكتريا التطبيقي** |
| **xxxxxxx** | **Free Course (1)** |  |  | **2** | **2** | **0** |  | **Institution** | **مقرر حر (1)** |
| **Total** | | | | 17 | 13 | 8 |  | **الإجمالي** | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Code** | **Course Title** | **R/E** | **Pre-Requisite Courses Code** | **Credit Unit** | **Contact Unit** | | | **Type of Requirements** | **Course Name in Arabic** |
| **Theory** | **Lab** | Other |
| **BIO364** | **Plant propagation and tissue culture.** | **R** | **BIO241** | **3** | **2** | **2** |  | **Program** | **اكثار النباتات وزراعة الانسجة** |
| **BIO365** | **Biotechnology in Animal Production.** | **R** | **BIO251** | **3** | **2** | **2** |  | **Program** | **التكنولوجيا الحيوية في الإنتاج الحيواني** |
| **BIO366** | **Ecology and Pollution.** | **R** | **BIO231- BIO241- BIO251** | **3** | **2** | **2** |  | **Program** | **البيئة والتلوث** |
| **BIO367** | **Food processing and Quality Assurance.** | **R** | **BIO362** | **4** | **3** | **2** |  | **Program** | **معالجة الاغذية وضمان الجودة** |
| **BIO368** | **Dairy technology** | **R** | **BIO363** | **3** | **2** | **2** |  | **Program** | **تكنولوجيا صناعة الالبان** |
| **HR100** | **Entrepreneurship** | **R** | **------** | **2** | **2** | **0** |  | **Institution** | **ريادة الأعمال** |
| **Total** | | | | 18 | 13 | 10 |  | **الإجمالي** | |

**Level 6**

### Academic Year-4

#### **Level-7**

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| **Course Code** | **Course Title** | **R/E** | **Pre-Requisite Courses Code** | **Credit Unit** | **Contact Unit** | | | **Type of Requirements** | **Course Name in Arabic** |
| **Theory** | **Lab** | Other |
| **BIO461** | **Biodiversity and Conservation Management (BCM)** | **R** | **BIO366** | 3 | 2 | 2 |  | **Program** | **المحافظة على التنوع الحيوي وادارته** |
| **BIO462** | **Biostatistics and Bioinformatics** | **R** | **BIO225- STAT131** | 3 | 2 | 2 |  | **Program** | **الإحصاء الحيوي والمعلوماتية الحيوية** |
| **BIO491** | **Field Training** | **R** | **DA** | **3** |  |  | 8 | **Program** | **تدريب ميداني** |
| **BIO47X** | **Department Elective course1 –( Group 1)** | **E** | **DA** | **3** | **2** | **2** |  | **Program** | **مقرر اختياري في التخصص )حزمة 1)** |
| **110x2xx** | **College Elective (2)** | E |  | **2** | **2** | **0** |  | **College** | **اختياري كلية (2)** |
| **xxxxxxx** | **Free Course (2)** |  | **------** | **2** | **2** | **0** |  | **Institution** | **مقرر حر (2)** |
| **Total** | | | |  | 10 | 6 |  | **الإجمالي** | |

#### **Level-8**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Course Code** | **Course Title** | **R/E** | **Pre-Requisite Courses Code** | **Credit Unit** | **Contact Unit** | | | **Type of Requirements** | **Course Name in Arabic** |
| **Theory** | **Lab** | Other |
| **BIO463** | **Bioremediation** | **R** | BIO366 | 3 | 2 | 1 |  | Program | **المعالجة الحيوية** |
| **BIO464** | **Medical Microbiology** | **R** | BIO361 | 3 | 2 | 1 |  | Program | **مكروبيولوجيا طبية** |
| **BIO465** | **Bioethics** | **R** | DA \* | 2 | 2 | 0 |  | Program | **أخلاقيات علوم الاحياء** |
| **BIO47X** | **Department Elective course2**  **( Package 2)** | **E** | DA | 3 | 2 | 1 |  | Program | **مقرر اختياري في التخصص (حزمة 2)** |
| **BIO47X** | **Department Elective course3**  **( Package 3)** | **E** | DA | 3 | 2 | 1 |  | Program | **مقرر اختياري في التخصص (حزمة 3)** |
| **BIO492** | **Research project** | **R** | DA | 3 | 1 | 2 |  | Program | **مشروع بحثي** |
| **Total** | | | | 17 | 11 | 6 |  | **الإجمالي** | |

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| **مقررات التخصص الإختيارية (يختار الطالب مقرر من كل مجموعةبمجموع 3 مقررات من 7 مقررات)** | | | | | | | |  |
| **م** | **اسـم المقرّر** | **رقم المقرّر ورمزه** | **الوحدات المعتمَدة** | **طبيعة الوحدات** | | **المتطلب**  **السابق المقرّر** | **Course Title** |  |
| **نظريّ** | **عمليّ** |
| 1 | النباتات الطبية (مجموعة 1) | BIO 471 | 3 | 2 | 2 | DA | **Medicinal Plants** | **(Package 1)** |
| 2 | الوقود الحيوي (مجموعة 1) | BIO 472 | 3 | 2 | 2 | DA | **Biofuel** |
| 3 | المكافحة المتكاملة للآفات (مجموعة 2) | BIO 473 | 3 | 2 | 2 | DA | **Integrated Pest Management (I.P.M.) )** | **(Package 2)** |
| 4 | الادارة المتكاملة للمراعي (مجموعة 2) | BIO 474 | 3 | 2 | 2 | DA | **Integrated rangeland management**  **(I.R.M.)** |
| 5 | علم المناعة  و الأمصال  (مجموعة 3) | BIO 475 | 3 | 2 | 2 | DA | **(Package 3) Immunology and Serology** | **(Package 3)** |
| 6 | علم السموم (مجموعة 3) | BIO 476 | 3 | 2 | 2 | DA | **Toxicology** |
| 7 | المضادات الحيوية (مجموعة 3) | BIO 477 | 3 | 2 | 2 | DA | **Antibiotics** |

**DA : Department Approval**

|  |  |  |  |  |  |  |  |
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| **متطلب جامعة اجباري** | | | | | | | |
| **م** | **اسـم المقرّر** | **رقم المقرّر ورمزه** | **الوحدات المعتمَدة** | **طبيعة الوحدات** | | **المتطلب السابق المقرّر** | **Course Title** |
| **نظريّ** | **عمليّ** |
| 1 | المهارات الجامعية | GNCR100 | 2 | 2 | 0 | --- | University skills |
| 2 | الثقافة الرقمية | IT100 | 2 | 2 | 0 | --- | Digital Culture |
| 3 | ريادة أعمال | HR100 | 2 | 2 | 2 | --- | Entrepreneurship |
|  |  |  |  |  |  |  |  |
| **متطلب ثقافة اسلامية اختياري (يختار الطالب 2 مقررات من 8 مقررات)** | | | | | | | |
| **م** | **اسـم المقرّر** | **رقم المقرّر ورمزه** | **الوحدات المعتمَدة** | **طبيعة الوحدات** | | **المتطلب السابق المقرّر** | **Course Title** |
| **نظريّ** | **عمليّ** |
| 1 | أصول الثقافة الإسلامية | ISLS100 | 2 | 2 | 0 | --- | The origins of Islamic culture |
| 2 | دراسات في السيرة النبوية | ISLS102 | 2 | 2 | 0 | --- | Studies in the Prophet's biograph |
| 3 | الفقه الطبي | ISLS109 | 2 | 2 | 0 | --- | Medical jurisprudence |
| 4 | الأسرة في الإسلام | ISLS104 | 2 | 2 | 0 | --- | The family in Islam |
| 5 | أخلاقيات المهنة | ISLS105 | 2 | 2 | 0 | --- | Professional ethics |
| 6 | المرأة ودورها التنموي | ISLS106 | 2 | 2 | 0 | --- | Women and their developmental role |
| 7 | النظام الاقتصادي | ISLS107 | 2 | 2 | 0 | --- | Economic system |
| 8 | قضايا معاصرة | ISLS108 | 2 | 2 | 0 | --- | Contemporary issues |
|  |  |  |  |  |  |  |  |
| **متطلب جامعة اختياري (يختار الطالب 2 مقررات من 5 مقررات)** | | | | | | | |
| **م** | **اسـم المقرّر** | **رقم المقرّر ورمزه** | **الوحدات المعتمَدة** | **طبيعة الوحدات** | | **المتطلب السابق المقرّر** | **Course Title** |
| **نظريّ** | **عمليّ** |
| 1 | المملكة ودورها الريادي | GNCR103 | 2 | 2 | 0 | --- | Kingdom & Its Pioneering Role |
| 2 | مهارات الكتابة الأكاديمية | ARAB103 | 2 | 2 | 0 | --- | Academic Writing Skills |
| 3 | اللياقة البدنية وعلوم الرياضة | GNCR104 | 2 | 2 | 0 | --- | Fitness and Sport Science |
| 4 | التنمية المستدامة | BIO104 | 2 | 2 | 0 | --- | Sustainable Development |
| 5 | مهارات التعلم مدى الحياة | CUET101 | 2 | 2 | 0 | --- | Lifelong learning skills |
|  |  |  |  |  |  |  |  |
| **المقرر ات الحرة (يختار الطالب 2 مقررات من 4 مقررات)** | | | | | | | |
| **م** | **اسـم المقرّر** | **رقم المقرّر ورمزه** | **الوحدات المعتمَدة** | **طبيعة الوحدات** | | **المتطلب السابق المقرّر** | **Course Title** |
| **نظريّ** | **عمليّ** |
| 1 | التحول الرقمي | IS101 | 2 | 2 | 0 | --- | Digital transformation |
| 2 | القيادة وإدارة التغيير | ELP102 | 2 | 2 | 0 | --- | Leadership and change management |
| 3 | التطوع والمسؤولية المجتمعية | GNCR105 | 2 | 2 | 0 | --- | Volunteering and social responsibility |
| 4 | مهارات التعامل مع ذوي الإعاقة | PSY115 | 2 | 2 | 0 | --- | Skills to deal with people with disabilities |
|  |  |  |  |  |  |  |  |
| **مقرر ات اللغة الإنجليزية بالجامعة** | | | | | | | |
| **م** | **اسـم المقرّر** | **رقم المقرّر ورمزه** | **الوحدات المعتمَدة** | **طبيعة الوحدات** | | **المتطلب السابق المقرّر** | **Course Title** |
| **نظريّ** | **عمليّ** |
| 1 | لغة إنجليزية 1 | LNGT101 | 3 | 15 | 0 | --- | English language 1 |
| 2 | لغة إنجليزية 2 | LNGT102 | 3 | 15 | 0 | LNGT101 | English language 2 |
|  |  |  |  |  |  |  |  |
| **متطلبات الكلية (يختار الطالب 2 مقررات من 5مقررات)** | | | | | | | |
| **م** | **اسـم المقرّر** | **رقم المقرّر ورمزه** | **الوحدات المعتمَدة** | **طبيعة الوحدات** | | **المتطلب السابق المقرّر** | **Course Title** |
| **نظريّ** | **عمليّ** |
| 1 | الطاقة المتجددة | PHYS 200 | 2 | 2 | 0 | --- | Renewable Energy |
| 2 | إدارة الأمن والسلامة | CHEM 200 | 2 | 2 | 0 | --- | Security and Safety Management |
| 3 | البيئة والتنمية المستدامة | BIO 200 | 2 | 2 | 0 | --- | Ecology and Sustainable Development |
| 4 | أساسيات البرمجة الرياضية | MATH 200 | 2 | 2 | 0 | --- | Basics of Mathematical Programming |
| 5 | تقنيات حديثة في علوم الحاسوب | CS 200 | 2 | 2 | 0 | --- | Modern Technologies in Computer Science |