|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sixth Level** |  | | |  | |  | **Fifth Level** | |  | |  | |  | **Fourth Level** |  | | | **Second year** | |
| Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. | Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. | Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. |
| \_ | 6 | 0 | 6 | Calculus I | MATH201 | \_ | 6 | 3 | 4.5 | General Chemistry I | CHEM203 | \_ | 6 | 3 | 4.5 | General Biology | BIOL204 |
| \_ | 6 | 3 | 4.5 | Physics I | PHYS202 | BIOL204 | 4.5 | 3 | 3 | Cell Biology | BIOL206 | \_ | 4.5 | 3 | 3 | Applied Statistics | STAT211 |
| CHEM203 | 4.5 | 3 | 3 | Organic Chemistry | CHEM212 | BIOL204 | 4.5 | 3 | 3 | Basics of Ecology | BIOL207 | \_ | 4.5 | 0 | 4.5 | English for Scientific Communication | ENGL210 |
| 16.5 | | | | **Total Units** | | 15 | | | | **Total Units** | | 15 | | | | **Total Units** | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Ninth Level** |  | | |  | |  | **Eighth Level** | |  | |  | |  | **Seventh Level** | | | | **Third year** | |
| Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. | Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. | Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. |
| ZOOL301 | 4.5 | 3 | 3 | Animal Physiology | ZOOL305 | BIOL204 | 4.5 | 3 | 3 | General Entomology | ZOOL302 | BIOL204 | 4.5 | 3 | 3 | Vertebrates Biology | ZOOL301 |
| BIOL204 | 4.5 | 3 | 3 | Microbiology | MICRO307 | BIOCH308 | 4.5 | 3 | 3 | Plant Physiology | BOTNY306 | BIOL206 | 4.5 | 3 | 3 | Principles of Genetics | GENTC304 |
| BIOCH308- GENTC304 | 4.5 | 3 | 3 | Molecular Biology | GENTC308 | \_ | 4.5 | 3 | 3 | Introduction to Programming | COMP209 | BIOL206 | 4.5 | 3 | 3 | Plant Morphogenesis | BOTNY303 |
|  |  |  |  |  |  |  |  |  |  |  |  | CHEM212 | 4.5 | 3 | 3 | Biochemistry | BIOCH308 |
| 13.5 | | | | **Total Units** | | 13.5 | | | | **Total Units** | | 18 | | | | **Total Units** | |

**شرط التخصيص بالمسارات اجتياز 120 ساعة معتمدة**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Twelfth Level** |  | | |  | |  | **Eleventh Level** | |  | |  | |  | **Tenth Level** |  | | | **Fourth year** | |
| Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. | Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. | Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. |
| GENTC308-STAT211 | 3 | 3 | 1.5 | Bioinformatics | BIOL 401 | ZOOL 301 | 4.5 | 3 | 3 | Developmental Biology | BIOL 402 | BOTNY 306 | 4.5 | 3 | 3 | Plant Growth &Development | BOTNY 403 |
| BIOL206 | 4.5 | 3 | 3 | Histology &Tumor Biology | HISTO 419 | GENTC308 | 3 | 0 | 3 | Gene Regulation | GENETC 420 | MICRO307-ZOOL 302 | 4.5 | 3 | 3 | Forensic Biology | BIOL 406 |
| BOTNY306 | 4.5 | 3 | 3 | Plant Stress | BOTNY 415 | \_ | 4.5 | 0 | 4.5 | Oral Skills for Scientific English | ENGL 381 | MICRO307 | 3 | 0 | 3 | Immunology | IMMUN 407 |
| - | 3 | 0 | 3 | Social system in Islam | ISLM272 | \_ | 4.5 | 3 | 3 | Elective from list A | XXX | - | 3 | 0 | 3 | Islamic Creed | ISLM271 |
| 15 | | | | **Total Units** | | 16.5 | | | | **Total Units** | | 15 | | | | **Total Units** | |

**summer Training BIOL 426 3 Cr. Recement: Pass 150 Cr.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Fifteenth Level** |  | | |  | |  | **Fourteenth Level** | |  | |  | |  | **Thirteenth Level** |  | | | **Fifth year** | |
| Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. | Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. | Pre-request | Cr.  Hr. | Lab | Lec | Course  Name | Course  No. |
| \_ | 4.5 | 3 | 3 | Molec. Micro. & Biotechnology | BIOL505 | Pass level 12 | 3 | 0 | 3 | Graduation Research Process | BIOL504 | ZOOL302 | 4.5 | 3 | 3 | Foundations of Parasitology | PARA 412 |
| BOTNY 403 | 3 | 3 | 1.5 | Cell & Tissue Culture | BOTNY416 | - | 3 | 0-3 | 3-1.5 | Elective from list A | XXX | BIOL207 | 4.5 | 3 | 3 | Ecosystem of Arab Gulf | BIOL 411 |
| \_ | 3 | 0 | 3 | Elective from list B | XXX | - | 3 | 0 | 3 | Elective from list A | XXX | GENTC308 | 4.5 | 3 | 3 | Genetic Engineering | GENTC 502 |
| - | 3 | 0-3 | 3-1.5 | Elective from list B | XXX | - | 3 | 0-3 | 3 -1.5 | Elective from list B | XXX | - | 3 | 0 | 3 | Economic system in Islam | **ISLM273** |
| - | 3 | 0 | 3 | Political system in Islam | **ISLM274** |  |  |  |  |  |  |  |  |  |  |  |  |
| 16.5 | | | | **Total Units** | | 12 | | | | **Total Units** | | 16.5 | | | | **Total Units** | |

**The student must pass minimum of (5) elective courses from list A or B with 19.5 hours**

|  |  |  |  |  |  |  |
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| **Elective Courses (List A)** | | | | | | |
| **Pre-request** | **Study Levels** | **Cr.**  **Hr** | **Lab** | **Lec** | **Course**  **Name** | **Course**  **No.** |
| \_ | 11th | 4.5 | 3 | 3 | Ecology and Control of Vector Borne Diseases | BIOL 454 |
| BOTNY303 | 11th | 4.5 | 3 | 3 | Plant Taxonomy | BOTNY 417 |
| MICRO307 | 14th | 3 | 0 | 3 | Virology | MICRO 424 |
| \_ | 14th | 3 | 0 | 3 | Gene & Society | GENTC459 |
| ZOOL305 | 14th | 3 | 3 | 1.5 | Endocrinology | BIOL405 |
| MICRO307 | 14th | 3 | 0 | 3 | Microbial Antibiotic resistance | MICRO462 |
| ZOOL305 | 14th | 3 | 0 | 3 | Neurobiology | BIOL 553 |
| **Elective Courses (List B)** | | | | | | |
| \_ | 15th | 3 | 0 | 3 | Medical Molecular Genetics | GENTC 557 |
| BIOL206 | 15th | 3 | 3 | 1.5 | Microtechniques | BIOL 501 |
| ZOOL305 | 15th | 3 | 0 | 3 | Animal Behaviour | ZOOL 503 |
| BIOCH308 | 15th | 3 | 0 | 3 | Fundamental Pharmacology | PHARM 460 |
|  | | | | | | |