|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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** | **3** | **4.5** | **General Chemistry I** | **CHEM203** | **\_** | **6** | **3** | **4.5** | **General Biology** | **BIOL204** | **\_** | **6** | **0** | **6** | **Calculus I** | **MATH201** |
| **\_** | **6** | **0** | **6** | **Foundation of mathematics** | **MATH206** | **\_** | **4.5** | **0** | **4.5** | **English for Scientific Communication** | **ENGL210** | **\_** | **6** | **3** | **4.5** | **Physics I** | **PHYS202** |
| **\_** | **4.5** | **3** | **3** | **Introduction to Programming** | **COMP209** | **MATH201** | **6** | **0** | **6** | **Calculus II** | **MATH205** |  |  |  |  |  |  |
| **16.5** | **Total Units** | **16.5**  | **Total Units** | **12** | **Total Units** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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.** |
| **MATH205** | **4.5** | **3** | **3** | **Numerical Analysis** | **MATH305** | **\_** | **4.5** | **3** | **3** | **Applied Statistics** | **STAT211** | **MATH205** | **6** | **0** | **6** | **Calculus III** | **MATH301** |
| **MATH205MATH303** | **4.5** | **3** | **3** | **Probability 1** | **STAT306** | **\_** | **3** | **0** | **3** | **Islamic Creed** | **ISLM271** | **MATH205** | **6** | **0** | **6** | **Ordinary Differential Equation** | **MATH302** |
| **MATH303-MATH302** | **4.5** | **3** | **3** | **Computational Mathematics** | **MATH307** | **MATH206** | **6** | **0** | **6** | **Principles of Algebra** | **MATH304** | **MATH206** | **6** | **0** | **6** | **Linear Algebra** | **MATH303** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **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.** |
| **STAT404** | **4.5** | **3** | **3** | **Regression Analysis** | **STAT410** | **MATH205** | **6** | **0** | **6** | **Real Analysis I** | **MATH403** | **MATH301-MATH302** | **6** | **0** | **6** | **Partial Differential Equations** | **MATH401** |
|  | **4.5** | **0-3** | **4.5-3** | **Elective from list A-B** | **XXX** | **MATH303-MATH301** | **6** | **0** | **6** | **Differential Forms & Vector Analysis** | **MATH405** | **MATH302** | **6** | **0** | **6** | **Mathematical Methods** | **MATH402** |
| **\_** | **4.5** | **0** | **4.5** | **Oral Skills for Scientific English** | **ENGL381** | **STAT306** | **6** | **0** | **6** | **Probability II** | **STAT411** | **STAT306** | **4.5** | **3** | **3** | **Statistical Inference I** | **STAT404** |
| **-** | **3** | **0** | **3** | **Social system in Islam** | **ISLM272** |  |  |  |  |  |  |  |  |  |  |  |  |
| **16.5**  | **Total Units** | **18**  | **Total Units** | **16.5**  | **Total Units** |

**Summer Training course 3 Cr. Requierment: pass 150 Cr.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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.** |
| **complete 157.5 or more credit hours** | **3** | **0** | **3** | **Mathematics Research Seminar** | **MATH506** | **MATH301** | **6** | **0** | **6** | **Complex Analysis** | **MATH501** | **STAT404** | **4.5** | **3** | **3** | **Nonparametric Statistics** | **STAT505** |
|  | **4.5** | **0-3** | **4.5-3** | **Elective from list A-B** | **XXX** | **MATH405** | **4.5** | **3** | **3** | **Operations Research** | **MATH510** | **STAT404** | **4.5** | **0** | **4.5** | **Sampling Theory** | **STAT512** |
|  | **4.5** | **0-3** | **4.5-3** | **Elective from list A-B** | **XXX** |  | **4.5** | **0-3** | **4.5-3** | **Elective from list A-B** | **XXX** |  | **4.5** | **0-3** | **4.5-3** | **Elective from list A-B** | **XXX** |
| **-** | **3** | **0** | **3** | **Political system in Islam** | **ISLM274** | **-** | **3** | **0** | **3** | **Economic system in Islam** | **ISLM273** |  |  |  |  |  |  |
| **15**  | **Total Units** | **18**  | **Total Units** | **13.5**  | **Total Units** |

**The student must pass minimum of (5) elective courses from list A or B with 22.5 credit hours**

|  |
| --- |
| **Elective Courses (List A) select … hours from List ….** |
| **Pre-request** | **Study Levels** | **Cr.****Hr** | **Lab** | **Lec** | **Course****Name** | **Course****No.** |
| **STAT404** |  | 4.5 | 3 | 3 | **Statistical Quality Control**  | **STAT450**  |
| **STAT404** |  | 4.5 | 3 | 3 | **Financial statistics**  | **STAT451** |
| **STAT404** |  | 4.5 | 3 | 3 | **Demography**  | **STAT452**  |
|  **STAT410** |  | 4.5 | 3 | 3 | **Survey Methodology**  | **STAT550** |
| **STAT410** |  | 4.5 | 3 | 3 | **Econometrics**  | **ECON551** |
| **Elective Courses (List B) select … hours from List ….** |
| **MATH401+ MATH205** |  | 4.5 | 3 | 3 | **Introduction to Mathematical Modelling**  | **MATH409** |
| **MATH405** |  | 4.5 | 0 | 4.5 | **Graph Theory & Applications**  | **MATH550**  |
| **-** |  | 4.5 | 0 | 4.5 | **Number Theory**  | **MATH406** |
| **MATH303+ MATH406**  |  | 4.5 | 0 | 4.5 | **Coding Theory**  | **MATH551**  |
| **PHYS202** |  | 6 | 0 | 6 | **Physics II (Mechanics & Waves)**  | **PHYS206** |
| **PHYS202** |  | 6 | 0 | 6 | **Magnetism & Electricity**  | **PHYS301** |
| **-** |  | 3 | 0 | 3 | **Introduction to Medical Physics**  | **PHYS550**  |
| **-** |  | 3 | 0 | 3 | **Radiation and Health Physics**  | **PHYS450** |
| **CHEM203** |  | 4.5 | 3 | 3 | **Organic Chemistry**  | **CHEM212**  |
| **CHEM212**  |  | 4.5 | 3 | 3 | **Biochemistry**  | **BIOCH308** |
| **BIOL204** |  | 4.5 | 3 | 3 | **Cell Biology**  | **BIOL206**  |
| **BIOL206**  |  | 4.5 | 3 | 3 | **Principle of Genetic**  | **GENTC304** |
|  |