

| No.          | Category                                      | Credit Hours |
|--------------|---|--------------|
| 1            | University Requirements / Mandatory           | 18           |
| 2            | University Requirements / Electives           | 3            |
| 3            | Faculty Requirements / Mandatory              | 8            |
| 4            | Faculty Requirements/ Electives               | 6            |
| 5            | Specialization/Track Requirements / Mandatory | 96           |
| <b>Total</b> |   | <b>131</b>   |

### 1. University Requirements / Mandatory

(18 credit hours)

| Course Code  | Course Title                                       | Credit hours | Prerequisites | Equivalency |
|--------------|--|--------------|---------------|-------------|
| AR113        | Arabic Communication Skills                        | 3            | --            |             |
| GB102        | Principles of Entrepreneurship for Non-Specialists | 3            | --            |             |
| GR118        | Life Skills and Coexistence                        | 3            | --            |             |
| GT101        | Learning and Information Technology                | 3            | --            |             |
| EL111        | English Communication Skills I                     | 3            | EL099         |             |
| EL112        | English Communication Skills II                    | 3            | EL111         |             |
| <b>Total</b> |  | <b>18 Cr</b> |               |             |

### 2. University Requirements / Electives

(3 credit hours)

| Course Code  | Course Title   | Course Level | Credit hours | Prerequisites | Equivalency |
|--------------|--|--------------|--------------|---------------|-------------|
| GR111        | Arabic Islamic Civilization                          | 1            | 3            | --            |             |
| GR112        | Issues and Problems of Development in the Arab World | 1            | 3            | --            |             |
| GR115        | Current International Issues and Problems            | 1            | 3            | --            |             |
| GR116        | Youth Empowerment                                    | 1            | 3            | --            |             |
| GR117        | Women Empowerment                                    | 1            | 3            | --            |             |
| GR121        | Environment and Health                               | 1            | 3            | --            |             |
| GR131        | General Branch Requirement                           | 1            | 3            | --            |             |
| CH101        | Chinese for Beginners (I)                            | 1            | 3            | --            |             |
| CH102        | Chinese for Beginners (II)                           | 1            | 3            | CH101         |             |
| SL101        | Spanish for Beginners (I)                            | 1            | 3            | --            |             |
| SL102        | Spanish for Beginners (II)                           | 1            | 3            | SL101         |             |
| FR101        | French for Beginners (I)                             | 1            | 3            | --            |             |
| FR102        | French for Beginners (II)                            | 1            | 3            | FR101         |             |
| <b>Total</b> |  |              | <b>3 Cr</b>  |               |             |

**3. Faculty Requirements / Mandatory**

**(8 credit hours)**

| Course Code  | Course Title                         | Course Level | Credit hours | Prerequisite | Equivalency |
|--------------|--------------------------------------|--------------|--------------|--------------|-------------|
| MST129       | Applied Calculus                     | 1            | 4            | EL099        | MT129       |
| TM260*       | Ethics, Law and the Governance in IT | 2            | 4            | TT284        |             |
| <b>Total</b> |                                      |              | <b>8 Cr</b>  |              |             |

**4. Faculty Requirements / Elective**

**(6 credit hours)**

| Course Code  | Course Title            | Course Level | Credit hours | Prerequisite   | Equivalency |
|--------------|-------------------------|--------------|--------------|----------------|-------------|
| MS102        | Physics                 | 1            | 3            | EL111          |             |
| M109         | .NET Programming        | 1            | 3            | EL111          |             |
| MT101        | General Mathematics     | 1            | 3            | -              |             |
| TM295        | System Modelling        | 2            | 3            | MT132          |             |
| M277         | Competitive Programming | 2            | 3            | M251 & (M269)+ |             |
| MT372        | Parallel Computing      | 3            | 3            | M269 & M251    |             |
| <b>Total</b> |                         |              | <b>6 Cr</b>  |                |             |

**5. Specialization Requirements / Mandatory**

**(96 credit hours)**

| Course Code  | Course Title   | Course Level | Credit hours | Prerequisite              | Equivalency |
|--------------|--|--------------|--------------|---------------------------|-------------|
| <b>TM103</b> | Computer Organization and Architecture               | 1            | 4            | EL111                     |             |
| <b>TM105</b> | Introduction to Programming                          | 1            | 4            | EL111                     |             |
| <b>MT131</b> | Discrete Mathematics                                 | 1            | 4            | EL111                     |             |
| <b>MT132</b> | Linear Algebra                                       | 1            | 4            | EL111                     |             |
| <b>M110</b>  | Python Programming                                   | 1            | 8            | EL111                     | TM111       |
| <b>TM112</b> | Introduction to Computing and Information Technology | 1            | 8            | M110                      |             |
| <b>M251</b>  | Object-Oriented Programming using Java               | 2            | 8            | TM105                     |             |
| <b>M269</b>  | Algorithms, Data Structures and Computability        | 2            | 8            | M110 & MT131              |             |
| <b>TT284</b> | Web Technologies                                     | 2            | 8            | TM112                     | T227        |
| <b>TM298</b> | Operating Systems                                    | 2            | 4            | TM105 & TM103             |             |
| <b>TM240</b> | Computer Graphics and Multimedia                     | 2            | 4            | MT132 & TM105             |             |
| <b>TM351</b> | Data Management and Analysis                         | 3            | 8            | M269 or M251*             |             |
| <b>TM354</b> | Software Engineering                                 | 3            | 8            | M251                      |             |
| <b>TM358</b> | Machine learning and artificial intelligence         | 3            | 8            | M269                      | TM366       |
| <b>TM471</b> | Graduation Project (CS pathway)                      | 3            | 8            | TM354 or TM358 or TM351** |             |
| <b>Total</b> |  |              | <b>96 Cr</b> |                           |             |