

| FIRST YEAR (Freshmen) | | | | | | | |
|-----------------------|--|----|--------------------|-----------------|---|----|-------------------------------|
| First Semester | | | | Second Semester | | | |
| Code | Course Title | CR | Pre-Requisite | Code | Course Title | CR | Pre-Requisite |
| CIS 103 | Programming Fundamentals I | 4 | ORN 03C ORN 03R | CIS 104 | Programming Fundamentals II | 4 | CIS 103 ORN 05C ORN 05R |
| CHM 101 | General Chemistry | 4 | ORN 04R ORN 04C | PHY 103 | Physics I | 4 | ORN 04-R ORN 04 C |
| MTH 106 | Discrete Mathematics | 3 | ORN 04C ORN 04R | MTH 104 | Calculus I | 3 | ORN 03C ORN 03R |
| ENG 101 | English Essay Writing | 3 | ORN 05R ORN 05C | STT 103 | Probability and Statistics | 3 | ORN 04C ORN 04R |
| ISL 101 | Foundation of Islamic Culture | 2 | ORN 02R ORN 02C | ARB 102 | Communication Skills in Arabic | 2 | ORN 02R ORN 02C |
| | Humanities / Social Science Elective I | 3 | ORN 04R ORN 04C | | Humanities / Social Science Elective II | 3 | ORN 04-R ORN 04 C |
| | Sub-Total | 19 | | | Sub-Total | 19 | |

| SECOND YEAR (Sophomore) | | | | | | | |
|-------------------------|-------------------------------------|----|--------------------|-----------------|---|----|--------------------|
| First Semester | | | | Second Semester | | | |
| Code | Course Title | CR | Pre-Requisite | Code | Course Title | CR | Pre-Requisite |
| CIS 201 | Fundamentals of Web Design | 3 | CIS 103 | CIS 221 | Introduction to Database Systems | 3 | CIS 104 |
| CIS 202 | Data Structures | 3 | CIS 104 | SWE 202 | Introduction to Software Engineering | 3 | CIS 104 |
| MIS 201 | Introduction to Information Systems | 3 | ORN 05C ORN 05R | NES 212 | Data Communications & Computer Networks | 3 | CIS 201 |
| PHY 203 | Physics II | 4 | PHY 103 | MTH 304 | Differential Equations | 3 | MTH 204 |
| MTH 204 | Calculus II | 3 | MTH 104 | ENG 201 | Technical Report Writing | 3 | ENG 101 |
| ISL 201 | Foundation of Islamic Economy | 2 | ORN 02R ORN 02C | ARB 202 | Writing Skills in Arabic | 2 | ORN 02R ORN 02C |
| | Sub-Total | 18 | | | Sub-Total | 17 | |

| THIRD YEAR (Junior) | | | | | | | |
|---------------------|-----------------------------------|----|---------------|-----------------|---|----|--------------------|
| First Semester | | | | Second Semester | | | |
| Code | Course Title | CR | Pre-Requisite | Code | Course Title | CR | Pre-Requisite |
| CIS 304 | Computer Architecture | 3 | CIS 202 | CIS 321 | Operating Systems | 3 | CIS 304 |
| CIS 386 | Project Management | 3 | SWE 202 | CIS 381 | Computer Ethics | 2 | SWE 202 |
| CIS 383 | Cyber Security and Cryptography | 3 | NES 212 | CIS 316 | Introduction to Artificial Intelligence | 3 | SWE 202 |
| SWE 300 | Software Process & Modelling | 3 | SWE 202 | SWE 302 | Software Architecture & Design | 3 | SWE 202 |
| SWE 301 | Software Requirements Engineering | 3 | SWE 202 | SWE 312 | Software Construction & User Interface | 3 | SWE 202 |
| MTH 301 | Linear Algebra | 3 | MTH 104 | SWE 322 | Advanced Web Programming | 3 | CIS 201 CIS 221 |
| | Sub-Total | 18 | | | Sub-Total | 17 | |

| FOURTH YEAR (Senior) | | | | | | | |
|----------------------|------------------------------------|----|--|-----------------|----------------------------|----|--------------------|
| First Semester | | | | Second Semester | | | |
| Code | Course Title | CR | Pre-Requisite | Code | Course Title | CR | Pre-Requisite |
| CIS 491 | Graduation Project I | 3 | 90 CH SWE 300 SWE 301 SWE 302 | CIS 492 | Graduation Project II | 3 | CIS 491 SWE 411 |
| CIS 443 | Cloud Computing | 3 | NES 212 | SWE 401 | Software Quality Assurance | 3 | SWE 301 |
| SWE 321 | Advanced User Interface Design | 3 | SWE 301 | | SWE Elective II | 3 | |
| SWE 411 | Software Verification & Validation | 3 | SWE 312 | | SWE Elective III | 3 | |
| | SWE Elective I | 3 | | CSK 001 | Career Skills | 0 | |
| | Sub-Total | 15 | | | Sub-Total | 12 | |

| FOURTH YEAR (Senior) | | | |
|----------------------|----------------------------|----|---------------|
| Summer Semester | | | |
| Code | Course Title | CR | Pre-Requisite |
| CIS 490 | Cooperative Assignment (*) | 6 | 90 CH |
| Sub-Total | | 6 | |

(*) it is recommended to take CSK 001 before CIS 490.

| SWE Electives students should register 3 courses | | | |
|--|---|---------------------------|---------------|
| Course Code | Course Title | Pre-requisites | Credit Hours* |
| SWE 402 | Software Maintenance and Evolution | SWE 312 | 3 |
| SWE 413 | Design Patterns | SWE 302 | 3 |
| SWE 414 | Formal Methods in Software Engineering | SWE 202 | 3 |
| SWE 415 | Software Usability Engineering | SWE 301 | 3 |
| CIS 222 | Interactive Media | CIS 201 | 3 |
| SWE 412 | Mobile Application Development | SWE 312 | 3 |
| CIS 416 | Introduction to Machine Learning | MTH 301, STT 103, CIS 316 | 3 |
| NES 424 | IOT architectures, protocols and security | NES 212 | 3 |
| NES 481 | Security Policies and Procedures | NES 212 | 3 |
| SWE 421 | Game Development | SWE 312 | 3 |
| SWE 429 | Selected Topics in Software Engineering | SWE 312 | 3 |
| MIS 432 | Enterprise Systems | CIS 221 | 3 |

| Humanities / Social Science Electives (Two courses from this list) | | | |
|---|------------------------------------|----|-------------------|
| Code | Course Title | CR | Pre-Requisite |
| SOS 102 | Introduction to Social Science | 3 | ORN 04R & ORN 04C |
| PHL 101 | Critical Thinking | 3 | ORN 04R & ORN 04C |
| PSY 101 | Principle of Psychology | 3 | ORN 04R & ORN 04C |
| SOS 101 | Saudi Heritage | 3 | ORN 04R & ORN 04C |
| FRE 106 | Conversational French 1 | 3 | ORN 04R & ORN 04C |
| CHI 107 | Chinese Language | 3 | ORN 04R & ORN 04C |
| ENG 103 | Introduction to English Literature | 3 | ORN 05R & ORN 05C |