

| Programme Matrix     |   |  |  |  |  |  |
|----------------------|---|--|--|--|--|--|
| Faculty              | Faculty of Computing and Information Technology |  |  |  |  |  |
| Program              | Computing and Web Engineering                   |  |  |  |  |  |
| Award                | Bachelor of Computing and Web Engineering       |  |  |  |  |  |
| Credit Hours / Units | 128 Credit Hours / 68 Units                     |  |  |  |  |  |
| Academic Year        | 2025 Onward                                     |  |  |  |  |  |

| Level | Semester 1  |                                      |                   |                   |                    | Semester 2  |   |               |                   |                       |
|-------|-------------|--------------------------------------|-------------------|-------------------|--------------------|-------------|---|---------------|-------------------|-----------------------|
|       | Course Code | Course Name                          | Pre-<br>requisite | Core/<br>Elective | Units /<br>Credits | Course Code | Course Name                                 | Pre-requisite | Core/<br>Elective | Units/<br>Credit<br>s |
| 1     | COMP1117    | Computer Architecture & Organization | IC3               | Core              | 2/4                | COMP1217    | Fundamentals of Database Systems            | IC3           | Core              | 2/4                   |
|       | COMP1116    | Computer<br>Programming              | IC3               | Core              | 2/4                | COMP1216    | Algorithms and Data Structure               | None          | Core              | 2/4                   |
|       | COMP1118    | Discrete Mathematics                 | IC3               | Core              | 2/3                | COMP1213    | Computer Networks I                         | IC3           | Core              | 2/4                   |
|       | UNIR1100    | Communication Skills I               | None              | Core              | 2/3                | COMP1218    | Introduction To Web & Multimedia Technology | None          | Core              | 2/4                   |
|       | UNIR1001    | Oman and Islamic<br>Culture          | None              | Core              | 1/2                | UNIR1002    | Arabic Language Skills                      | None          | Core              | 1/2                   |
|       | COMP2100    | Human Computer Interaction           | None              | Core              | 2/4                | COMP2215    | Operating System & Security                 | None          | Core              | 2/4                   |
|       | COWE2100    | Web Application Development          | COMP121<br>8      | Core              | 2/4                | INTR2002    | Industrial Training                         | None          | Core              | 0                     |
|       | COMP2108    | Object Oriented Programming          | COMP111<br>6      | Core              | 2/4                | COMP2220    | Web Information Systems                     | None          | Core              | 2/4                   |
| 2     | UNIR2001    | Entrepreneurship                     | None              | Core              | 2/2                | UNIR2100    | Communication Skills II                     | UNIR1100      | Core              | 2/3                   |
|       | COMP2111    | System Analysis and Design           | COMP111<br>6      | Core              | 2/4                | COMP1220    | Computer Security Fundamental               | None          | Elective          |                       |
|       |             |                                      |                   |                   |                    | COMP2222    | Computer Animation                          | None          | Elective          | 2/4                   |
|       |             |                                      |                   |                   |                    | ARIN2201    | Introduction to<br>Business Intelligence    | None          | Elective          |                       |



| Level | Semester 1  |                                   |                   |                   |                    | Semester 2    |                                 |               |                   |                       |
|-------|-------------|-----------------------------------|-------------------|-------------------|--------------------|---------------|---------------------------------|---------------|-------------------|-----------------------|
|       | Course Code | Course Name                       | Pre-<br>requisite | Core/<br>Elective | Units /<br>Credits | Course Code   | Course Name                     | Pre-requisite | Core/<br>Elective | Units/<br>Credit<br>s |
| 3     | COMP3113    | Cloud Computing and Web Services  | None              | Core              | 2/4                | COWE3200      | Advance Web<br>Technologies     | COMP2220      | Core              | 2/4                   |
|       | COMP3109    | Mobile Applications               | None              | Core              | 2/4                | COMP3210      | Artificial Intelligence         | None          | Core              | 2/4                   |
|       | COMP3112    | Software Project<br>Management    | None              | Core              | 2/4                | UNIR3100      | Communication Skills            | UNIR2100      | Core              | 2/4                   |
|       | COMP3107    | Distributed Database<br>Design    | None              | Elective          | 2/4                | COMP3121      | Cyber Law and Ethics            | None          | Elective          | 2/4                   |
|       | COMP3110    | Pattern Recognition               | None              | Elective          |                    | COMP3201      | Computer Graphic                | None          | Elective          |                       |
|       | COMP3111    | GIS & Spatial<br>Databases        | None              | Elective          |                    | COMP3209      | Data Mining                     | None          | Elective          |                       |
|       | COMP4000A   | Specialization Project            | None              | Core              | 2/3                | COMP4000<br>B | Specialization Project          | COMP4000<br>A | Core              | 2/3                   |
|       | COWE4100    | Generative AI for Web Development | COMP222<br>0      | Core              | 2/4                | COWE4200      | Web Environment                 | COMP2220      | Core              | 2/4                   |
| 4     | COMP3211    | ERP Design and Implementation     | None              | Elective          | 2/4                | COMP4210      | Mobile and Wireless<br>Networks | COMP2220      | Core              | 2/4                   |
|       | ARIN4202    | Natural Language<br>Processing    | None              | Elective          | 2/4                | COMP4202      | Advance Information Security    | COMP1220      | Elective          |                       |
|       | COMP4109    | Internet of Things                | None              | Elective          |                    | COMP4206      | Data Visualization              | None          | Elective          | 2/4                   |
|       |             |                                   |                   |                   |                    | ARIN4201      | Special Topic in Al             | None          | Elective          |                       |