

*Republic of Iraq*  
*Ministry of Higher Education & Scientific Research*  
*Supervision and Scientific Evaluation Directorate*  
*Quality Assurance and Academic Accreditation*  
*International Accreditation Dept.*

## *Academic Program Specification Form for the Academic Year 2023-2024*

*University:*  
*College: Al-Maarif University College*  
*Number of Departments in the College: 13*  
*Date of Form Completion: 21/11/2023*

*Dean's Name*  
*Dr. Ahmed Abdulmalik*  
*Date :     /     / 2023*  
*Signature*

*Dean's Assistant For Scientific  
Affairs*  
*Dr. Mohamood Abdulrazzaq*  
*Date :     /     / 2023*  
*Signature*

*The College Quality Assurance And  
University Performance Manager*  
*Dr. Mohamed Khalaf*  
*Date :     /     / 2023*  
*Signature*

*Quality Assurance And University Performance Manager*  
*Date :     /     / 2023*  
*Signature*

# TEMPLATE FOR PROGRAMME SPECIFICATION

## HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

### PROGRAMME SPECIFICATION

This Program Specification provides a concise summary of the main features of the program and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It is supported by a specification for each course that contributes to the program.

|   |   |
|---|---|
| <b>1. Teaching Institution</b>  | Al-Maarif University College  |
| <b>2. University<br/>Department/Centre</b>  | Computer Engineering Techniques Department  |
| <b>3. Program Title</b>   | Bachelor  |
| <b>4. Title of Final Award</b>  | Bachelor of Computer Engineering Techniques<br>with its two branches<br>(Computer Communication Networks, Computer Electronics) |
| <b>5. Modes of Attendance offered</b>   | Annual  |
| <b>6. Accreditation</b>   | Academic Program  |
| <b>7. Other external influences</b>   | Scientific trips  |
| <b>8. Date of production/revision<br/>of this specification</b>   | 21/11/2023  |
| <b>9. Aims of the Program</b>   |   |
| <ul style="list-style-type: none"><li>• Preparation of engineering staff to provide the labor market with the requirements of human competencies and technical forces.</li></ul>  |   |
| <ul style="list-style-type: none"><li>• Develop the learner's skill in how data works on the Internet</li></ul>   |   |
| <ul style="list-style-type: none"><li>• Mastering the skills and find the necessary solutions for different situations</li></ul>  |   |
| <ul style="list-style-type: none"><li>• Training students on how to perform the installation and maintenance of computers and the uses of computers in the field of modern technology through scientific lectures and training in laboratories.</li></ul> |   |

## **10. Learning Outcomes, Teaching, Learning and Assessment Methods**

### **A. Knowledge and Understanding**

- A1. The learner can know computer technology and techniques
- A2. The learner can deal with the whole communication systems
- A3. The learner can differentiate between programming languages
- A4 .The learner can deal with different electrical circuits

### **B. Subject-specific skills**

- B1. The learner can analyze the performance of networks
- B2. The learner can analyze the performance of modern processors and programming
- B3. The learner can distinguish between different systems of networks, communications and electronics

### **Teaching and Learning Methods**

The online lectures (interactive education) and the traditional lectures in the manner of presentation and discussion.

### **Assessment methods**

- 1. Feedback from students
- 2. Achievement assessment

### **C. Thinking Skills**

- C1. Describes the work of networks and electronics
- C2. Develops electronic circuits and network performance

### **Teaching and Learning Methods**

The online lectures (interactive education) and the traditional lectures in the manner of presentation and discussion.

### **Assessment methods**

Daily and monthly tests and experiments.

**D. General and Transferable Skills (other skills relevant to employability and personal development)**

- D1. Conducting experiments in the laboratory.  
D2. Involve the learners in specialized seminars.  
D3. Involve the learners in discussion activities.

**Teaching and Learning Methods**

Summer training for the second and third phases and their direct involvement in the labor market

**Assessment Methods**

The final degree of summer training obtained from the training supervisor.

**11. Program Structure****12. Awards and Credits**

| Level  | Course Code | Course or Module Title              | Credit rating | Bachelor Degree Requires ( 172 ) credits |
|--------|-------------|-------------------------------------|---------------|--|
| First  | 75505611    | Democracy and Human Rights          | 4             |  |
| First  | 75505612    | Mathematics (1)                     | 4             |  |
| First  | 75505613    | Engineering Drawing                 | 3             |  |
| First  | 75505614    | Workshops                           | 4             |  |
| First  | 75505615    | Electrical Engineering Fundamentals | 7             |  |
| First  | 75505616    | Computer Organization               | 6             |  |
| First  | 75505617    | Computer Programming (I)            | 7             |  |
| First  | 75505618    | Digital Electronics                 | 6             |  |
| First  | 75505619    | English I                           | 2             |  |
| First  | 7550561A    | Arabic                              | 2             |  |
| Second | 75505621    | Computer Applications               | 4             |  |
| Second | 75505622    | Mathematics                         | 4             |  |

|                                |           |                                  |   |  |
|--------------------------------|-----------|----------------------------------|---|--|
| Second                         | 75505623  | Microprocessor Architecture      | 7 |  |
| Second                         | 75505624  | Instrumentation and Measurements | 6 |  |
| Second                         | 75505625  | Computer Programming (II)        | 6 |  |
| Second                         | 75505626  | Communication Fundamentals       | 6 |  |
| Second                         | 75505627  | Electronics                      | 6 |  |
| Second                         | 75505629  | English II                       | 2 |  |
| Second                         | 75505628  | Training and Practice            | - |  |
| Third/<br>Computer Electronics | 755056311 | Electronic Systems Simulators    | 4 |  |
| Third/<br>Computer Electronics | 755056321 | Power Electronics                | 6 |  |
| Third/<br>Computer Electronics | 755056331 | Engineering Analysis             | 6 |  |
| Third/<br>Computer Electronics | 755056341 | Control Engineering Fundamentals | 6 |  |
| Third/<br>Computer Electronics | 755056351 | Real Time Systems Design         | 6 |  |
| Third/<br>Computer Electronics | 755056361 | Digital Signal Processing        | 6 |  |
| Third/<br>Computer Electronics | 755056371 | Digital Controllers              | 6 |  |
| Third/<br>Computer Electronics | 755056381 | Elective Course                  | 6 |  |
| Third/<br>Computer Electronics | 7550563E1 | English III                      | 2 |  |
| Third/<br>Computer Electronics | 755056391 | Training and Practice            | - |  |
| Third/<br>Computer Networks    | 755056312 | Computer Networks Simulators     | 4 |  |
| Third/<br>Computer Networks    | 755056322 | Computer Networks Fundamentals   | 6 |  |
| Third/<br>Computer Networks    | 755056332 | Engineering Analysis             | 6 |  |
| Third/<br>Computer Networks    | 755056342 | Control Engineering Fundamentals | 6 |  |
| Third/<br>Computer Networks    | 755056352 | Real Time Systems Design         | 6 |  |

|                                 |           |                                       |   |  |
|---------------------------------|-----------|---------------------------------------|---|--|
| Third/<br>Computer Networks     | 755056362 | Digital Signal Processing             | 6 |  |
| Third/<br>Computer Networks     | 755056372 | Digital Communications                | 6 |  |
| Third/<br>Computer Networks     | 755056382 | Elective Course                       | 6 |  |
| Third/<br>Computer Networks     | 7550563E1 | English III                           | 2 |  |
| Third/<br>Computer Networks     | 755056392 | Training and Practice                 | - |  |
| Fourth/<br>Computer Electronics | 755056411 | Smart Systems Modeling                | 6 |  |
| Fourth/<br>Computer Electronics | 755056421 | Advanced Computer<br>Technology       | 6 |  |
| Fourth/<br>Computer Electronics | 755056431 | Computer Interface<br>Circuits Design | 6 |  |
| Fourth/<br>Computer Electronics | 755056441 | Advanced Digital<br>Electronics       | 6 |  |
| Fourth/<br>Computer Electronics | 755056451 | Project Management                    | 6 |  |
| Fourth/<br>Computer Electronics | 755056461 | Computer Networks                     | 6 |  |
| Fourth/<br>Computer Electronics | 755056471 | Elective Course                       | 6 |  |
| Fourth/<br>Computer Electronics | 755056491 | English IV                            | 2 |  |
| Fourth/<br>Computer Electronics | 755056481 | Project                               | 4 |  |
| Third/<br>Computer Networks     | 755056412 | Computer Networks<br>Protocols        | 6 |  |
| Third/<br>Computer Networks     | 755056422 | Information Theory and<br>Coding      | 6 |  |
| Third/<br>Computer Networks     | 755056432 | Mobile Communications                 | 6 |  |
| Third/<br>Computer Networks     | 755056442 | Security of Computers and<br>Networks | 6 |  |
| Third/<br>Computer Networks     | 755056452 | Project Management                    | 6 |  |
| Third/<br>Computer Networks     | 755056462 | Multimedia Computing                  | 6 |  |
| Third/<br>Computer Networks     | 755056472 | Elective Course                       | 6 |  |
| Third/<br>Computer Networks     | 755056492 | English IV                            | 2 |  |
| Third/<br>Computer Networks     | 755056482 | Project                               | 4 |  |

### **13. Personal Development Planning**

Involve students and staff in development courses inside Iraq through the horizon of joint cooperation with relevant institutions in the latest innovations in educational technology, mechanisms and available technologies.

### **14. Admission criteria**

- The department accepts the outcomes of the high school studies, the scientific branch.
- The department accepts the outputs of the vocational study, industrial branch with these specialties:
  - a. Computer and information technology
  - b. Electricity
  - c. electronics and control

### **15. Key sources of information about the program**

- Textbooks and methodology approved by the scientific committee and the accreditation and academic committees.
- Archived lectures by the specialized teachers for each subject, whether paper or video
- Official web sites approved by the university.

# Curriculum Skills Map

**please tick in the relevant boxes where individual Program Learning Outcomes are being assessed**

## Program Learning Outcomes

[illegible]



## TEMPLATE FOR COURSE SPECIFICATION

## HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

## COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

[illegible]

## 10. Learning Outcomes, Teaching ,Learning and Assessment Methode

### A- Knowledge and Understanding

- A1.
- A2.
- A3.
- A4.
- A5.
- A6 .

### B. Subject-specific skills

- B1.
- B2.
- B3.

### Teaching and Learning Methods

### Assessment methods

### C. Thinking Skills

- C1.
- C2.
- C3.
- C4.

### Teaching and Learning Methods

### Assessment methods

#### D. General and Transferable Skills (other skills relevant to employability and personal development)

D1.  
D2.  
D3.  
D4.

#### 11. Course Structure

| Week | Hours | ILOs | Unit/Module or Topic Title | Teaching Method | Assessment Method |
|------|-------|------|----------------------------|-----------------|-------------------|
|      |       |      |                            |                 |                   |
|      |       |      |                            |                 |                   |
|      |       |      |                            |                 |                   |
|      |       |      |                            |                 |                   |
|      |       |      |                            |                 |                   |
|      |       |      |                            |                 |                   |
|      |       |      |                            |                 |                   |

#### 12. Infrastructure

|   |  |
|---|--|
| Required reading: <ul style="list-style-type: none"><li>· CORE TEXTS</li><li>· COURSE MATERIALS</li><li>· OTHER</li></ul> |  |
| Special requirements (include for example workshops, periodicals, IT software, websites)                                  |  |
| Community-based facilities (include for example, guest Lectures , internship , field studies)                             |  |

#### 13. Admissions

|                            |  |
|----------------------------|--|
| Pre-requisites             |  |
| Minimum number of students |  |
| Maximum number of students |  |