



Ministry of Higher Education & Scientific Research
University of Information Technology and Communications
College of Engineering
Department of Mobile Communications and Computing Engineering

ABET

Self-Study Report

B.Sc. in Communications and Mobile Computing Engineering

**Program at the Department of Mobile Communications and
Computing Engineering**

College of Engineering

University of Information Technology and Communications

Baghdad, IRAQ
June, 2023

E-mail: do.eng@uoitc.edu.iq

Website: https://uoitc.edu.iq/mcce_department/

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Foreword from the Dean of the College of Engineering

With the tremendous development of information and communications technologies in our modern era, concerns have begun to emerge about the disappearance of some traditional jobs from the labor market and the creation of new jobs that are more innovative, inclusive and universal. From this standpoint, the Presidency of the University of Information Technology and Communications (UOITC) has sought to pay attention to the modern competencies that meet the requirements of the labor market.

The Faculty of Engineering at UOITC was established in 2017 to include two scientific departments: Mobile Communications and Computing Department and Media Technology Engineering Department. In its first academic year 2017-2018, the College received about 50 students for the first stage in both departments. At the beginning of the academic year 2018-2019, the turnout on these new departments has increased to about 70 students and we expect the number to increase in the coming years.

The Faculty of Engineering at UOITC is distinguished from the rest of the faculties in the Iraqi universities with the precise and rare engineering disciplines that accompany technological progress in the field of information and communication. In addition, the College looks forward to the graduation of talented and innovative engineering cadres required in the labor market with self-motivation and ethical professional values to enable them to research and develop and keep abreast of the technology of the age in order to serve the community.

In order to achieve this vision, the Deanship of the College of Engineering places its highest priority on proper planning and readiness through intensive efforts to obtain academic recognition of its programs from the Accreditation Board for Engineering and Technology (ABET).

Prof. Dr. Mouayad Abdulredha Sahib

Dean of Engineering College

Writing the self-report is an important step towards achieving the national and international accreditation standards for the program through the four main rules that have been approved by the National Council for Improving the Quality of Technical Engineering Education, namely: the educational objectives of the program, student outcomes, assessment and evaluation, which were based on international standards approved by the academic accreditation for engineering. Accreditation Board for Engineering and Technology ABET: As well as the International Engineering Association IEA.

1- BACKGROUND INFORMATION

1-1 Contact Information

Assist. Prof. Dr. Jaafar A. Aldhaibni.

dr.jaafaraldhaibani@uoitc.edu.iq

Cell: 07818221806

Iraq, Baghdad / Al-Mansour / Unions Street.

1-2 Program History

This is the initial accreditation for this program.

The Faculty of Engineering was established at the University of Information and Communication Technology in 2017 and began its scientific career in the academic year 2017-2018 to receive the first batch of middle school students within the central admission plan. The first class graduated from the college in the academic year 2020-2021. The College of Engineering includes two scientific departments:

- *Media Technology and Communications Engineering (MTCE).*
- *Mobile Communications and Computing Engineering (MCCE).*

Mobile Communications and Computing Engineering (MCCE):

The Department of Mobile Communications and Computing Engineering (MCCE) was established in 2017 (as one of the two departments of the College of Engineering / University of Information and Communication Technology) due to the growing market need amid the continuous modernization of the means of using technology from mobile applications to databases and various types of technology and communications and to

the growing demand for specialized engineers working in The private and government sectors in the field of communications engineering and mobile computing. Where the department's message and objectives emphasized the main important points, and they were summarized as follows:

1-3 Options

The program has one major, Mobile Communications and Computing Engineering.

- Duration of study for preliminary studies to obtain a bachelor's degree: Four years.
- Study type: semester system.
- The administrative organization of the department.
 - 1- The Deanship.
 - 2- Heading the department.
 - 3- The decision of the department.
 - 4- Lecturer.
 - 5- Teaching assistants.
 - 6- Secretary of the department.

1-4 Program Delivery Modes

The program follows regulations of the ministry of Higher Education and Scientific Research regarding the classes starting and ending times. Regular Classes for Morning studies start at 8:00 AM (Baghdad local Time) and conclude at 2:30 PM. Evening Classes Start at 2:30 PM and conclude at 8:30 PM. Program includes regular classes and laboratories. The program did not offer online classes.

Please note that the application of partially or fully online classes was due to COVID-19 pandemic which affected the class schedule during evaluation year 2020-2021.

The academic system in the department is a four-year semester system with 157 academic units distributed over all academic levels and for morning and evening studies.

1-5 Program Locations

Main campus of the University of Information Technology and Communications / College of Engineering is the main program location.

The department's educational program is implemented in the classrooms and laboratories located in the main building of the College of Engineering. The most important characteristic of the department is the presence of modern laboratories such as the electrical circuits laboratory, the digital rotary laboratory, the programming basics laboratory, the engineering drawing laboratory, the computer architecture laboratory, the electronics laboratory, the communication laboratory, the processors laboratory, the website programming laboratory, and the programming laboratory. Objectivity, Embedded Systems Lab, Mobile Fundamentals Lab, Wireless Networks Lab, Digital Communications Lab, Computer Networks Lab, Antennas and Wave Propagation Lab, Mobile Applications Design Lab, Digital Signal Processing Lab, Mobile Communications Lab, Project Management Lab, Computer Networks Management Lab, Computer Applications Development Lab, Computer Applications Development Lab, and Fiber Optic Communications Lab. These laboratories contain modern equipment through which the student will be trained on the labor market during the period of his studies by linking the theoretical information that the student learns with the practical side through the laboratories and coexistence courses offered by the department on a number of satellite channels.

1-6 Public Disclosure

All information about the program is publically available and accessible through:

https://uoitc.edu.iq/single-standard_eng.php?art_id=1682

Objectives of the educational program

Transferring knowledge to the student in a sober academic manner that enables him to find appropriate solutions to problems through analyzing them, collecting data, and defining requirements.

- Providing the telecommunications sector with qualified engineers to compete in the local and global labor market.

- Designing and conducting experiments, research and scientific studies, and activating the principle of teamwork.

Keeping pace with the updating of school curricula to ensure the quality of education and scientific sobriety.

Providing continuing education opportunities to develop cadres and pursue postgraduate studies.

- Enhancing cooperation with educational and research institutions at home and abroad.

Providing engineering consulting services to government institutions and the private sector.

2-Students

2-1 Student Admissions

Newly admitted students have to graduate from an accredited high school (inside Iraq, or from outside Iraq after appropriate degree recognition). All students have to score at least (87.83% from Biological branch, and 80.5% from Scientific branch) as an overall average in high school to be admitted to the program. Several admission channels are available. All related admissions conditions and policies are published by the ministry of Higher Education and Scientific Research every year. The guide for the academic year 2022-2023 is published online through the ministry website and also distributed to all universities through official mail.

Minimum admissions for 2022 at the University of Information and Communication Technology

| معدلات جامعة تكنولوجيا المعلومات والاتصالات ولكافة الاقسام | | | | | |
|--|---|-------|-----|--------|-------|
| 1151 | جامعة تكنولوجيا المعلومات والاتصالات/كلية الهندسة/قسم الاتصالات والحوسبة المتنقلة | 87.83 | 250 | احيائي | مختلط |
| 1152 | جامعة تكنولوجيا المعلومات والاتصالات/كلية الهندسة/قسم الاتصالات والحوسبة المتنقلة | 80.50 | 222 | تطبيقي | مختلط |
| 1153 | جامعة تكنولوجيا المعلومات والاتصالات/كلية الهندسة/قسم تكنولوجيا الاعلام | 78.00 | 228 | احيائي | مختلط |
| 1154 | جامعة تكنولوجيا المعلومات والاتصالات/كلية الهندسة/قسم تكنولوجيا الاعلام | 73.50 | 198 | تطبيقي | مختلط |
| 1155 | جامعة تكنولوجيا المعلومات والاتصالات/كلية المعلوماتية الطبية الحيوية | 88.00 | 260 | احيائي | مختلط |
| 1156 | جامعة تكنولوجيا المعلومات والاتصالات/كلية المعلوماتية الطبية الحيوية | 73.17 | 228 | تطبيقي | مختلط |
| 1157 | جامعة تكنولوجيا المعلومات والاتصالات/كلية معلوماتية الاعمال | 67.00 | 191 | احيائي | مختلط |
| 1158 | جامعة تكنولوجيا المعلومات والاتصالات/كلية معلوماتية الاعمال | 66.83 | 177 | تطبيقي | مختلط |
| معدلات القبول في جامعة تكنولوجيا المعلومات والاتصالات للعام 2022 الحدود الدنيا | | | | | |

The student is admitted to colleges based on central admission, where students are distributed based on the grades of the baccalaureate preparatory stage, and the student is registered in the college by Student Affairs, which has a guide to student affairs procedures and admission controls. Where the student is registered in the college after completing all the requirements of the college.

A condition for a student who is accepted into universities to be:

1. Iraqi nationality.
2. Holder of an Iraqi preparatory school certificate supported by certification from the General Directorate of Education in the governorate, or an equivalent certificate.

3. That the student be born as determined by the Ministry.
4. Passed the medical examination according to the special conditions of each study.
5. Full-time for study, and it is not permissible to combine work and study (at the same time) in colleges and institutes.
6. This includes employees of all governmental institutions, and it is required that they continue their studies according to the instructions.

2-2 Evaluating Student Performance

Measuring student performance usually takes the form of summative assessments like standardized tests, exams, or a Final examination assessment. However, you can also monitor performance data on a micro-scale by using aligned formative assessments, such as performance tasks or weekly quizzes, to gauge student skill.

- Required program outcomes and methods of teaching, learning and assessment.

Classes, and labs, include regular paper tests and quizzes to evaluate student performance through his/her curriculum. COVID-19 pandemic affect the number of paper tests which are replaced mostly by online tests and quizzes.

Since students in a specific semester have to pass previous semester to study in it, prerequisites classes are always studied in their correct order.

(a) Knowledge and understanding

1. The ability to apply knowledge in the fields of mathematics and specialized engineering sciences in the field of communications and mobile computing.
2. The ability to solve problems by designing appropriate algorithms.
3. Developing skills and capabilities by following the correct procedures and contexts.
4. Preparing the student to continue self-learning and acquire new techniques and skills in engineering fields.

(b) Subject-specific skills

1. The ability to apply appropriate mobile computing knowledge necessary for program and major deliverables.
2. The ability to analyze problems and identify and define the engineering requirements required for a solution.
3. The ability to design, implement and evaluate mobile phone systems and programs necessary for implementation.
4. The ability to analyze the impact of computing on the performance of individuals, groups, institutions, and society in general.

Methods of teaching and learning

- Studying the theoretical and practical academic program for specialization courses.
- The theoretical program is taught using the white board or the digital display (Data Show) connected to the personal computer, with discussing scientific ideas and vocabulary with the students.

The practical program of the specialization lessons is conducted by conducting laboratory or field experiments, collecting measurements by small groups of students, analyzing, discussing and presenting the measurements.

Evaluation modalities

- Preparing classroom and homework assignments.
- Preparing reports on practical experiments.
- Preparing reports on small projects and presenting them to students.
- Daily and monthly exams.
- final exams.

(C) - thinking skills

- 1- The ability to choose appropriate methods in analyzing and completing activities in the field of communications engineering and mobile computing.

2- Eliciting good ideas for projects and designs and checking them.

The ability to give correct and scientific solutions to various problems.

Methods of teaching and learning

- Adopting international scientific methods in the preparation of theoretical and scientific curricula.

Adopting specialized knowledge diversity in preparing curricula vocabulary to include real issues and problems that motivate students to express their opinions and proposed solutions, and to choose the best method to address problems and challenges.

Evaluation modalities

- Adopting exam questions of a diverse nature to include various issues in the evaluation and finding solutions to the challenges that enable the student to choose the best method for the solution.
- Preparing reports and studies on real problems and how to benefit from global solutions and experiences.
- Organizing visits to various institutions and centers for the purpose of viewing and benefiting from ideas and applied experiences.

(D) - General and transferable skills (other skills related to employability and personal development).

1- The ability to work effectively in a team to accomplish a specific task.

1.2- Understanding what is related to the professional specialization in terms of ethics, laws, safety procedures, and social concerns.

2.3 The ability to present, discuss and defend ideas in the correct administrative and scientific manner.

3.4- The ability to communicate effectively with a group of listeners.

4.5- The ability to actively participate and plan projects.

6- The ability to master other languages at the level that guarantees and achieves the development of work and improving its quality.

Methods of teaching and learning

- Participation in qualifying courses to know the art of management and how to work according to official contexts.
- Students practice working in teams during the performance of the practical program of lessons.

Encouraging students to participate in seminars and workshops to qualify them to gain the necessary experience to speak and present their ideas to the audience.

Evaluation modalities

The various events and activities for students through which the extent of understanding, care and discipline shown by students is inferred.

- Evaluation through seminars and seminars, during which the student's awareness of his moral and scientific responsibility is assessed.

Evaluation through the annual project, in addition to the summer activities for the specialization courses that contribute to evaluating the student's performance and his intellectual ability in proposition, analysis and implementation.

2-3 Transfer Students and Transfer Courses

General conditions for transfer according to (guide to student affairs procedures and admission controls):

1. Successful students have the right to transfer to (colleges / institutes) and corresponding departments and branches after obtaining the approval of the original (college / institute) to which they want to transfer and according to the capacity.
2. Students have the right to transfer between the universities of the same governorate or corresponding colleges within the same university.
3. The procedures for the issuance of the graduation document for middle school from the college to which the student is transferred are verified in case it has not been

completed by the college from which the student is transferred until the date of his transfer.

4. The student who is accepted within the central admission in the same year is allowed to move from the morning study to the corresponding evening study and in the corresponding section. For other classes, it is allowed to move to the corresponding section according to the capacity.

5. The transfer procedures start exclusively from the original college, and the no-objection letters are addressed to the corresponding college, provided that the academic subjects that the student passed and the number of study units are attached to the application and a letter of no-objection.

6. The work of the Scientific Clearing Committees shall be settled no later than the first week of September, taking into account the provisions of Item (J-4) of Chapter Ten.

7. The student transfer order is issued from his original college after the issuance of a letter of no objection to the transfer from the college to which he is transferring, and the student may not be registered in the college to which he is to be transferred except after the issuance of the transfer order and his separation from his original college

8. The student must complete the registration procedures in the college/institute to which he is transferred within a period of one week from the issuance of the transfer order from his original college, otherwise he is considered to have failed his class.

9. The original college sends the file of the student transferred from it to the college to which it is transferred and in the hands of the authorized official mail within a period not exceeding two weeks from the issuance of the transfer order, otherwise the college bears the responsibility for the default.

10. Scientific clearing is carried out in accordance with the general rules for scientific clearing mentioned in item (J-4) of Chapter Ten.

11. The Student Affairs Department at the two universities is in charge of checking the safety of transportation procedures in accordance with the controls.

2-4 Advising and Career Guidance

Ministry-mandated articulation requirements for student transfer are met. For this program and for the review year, no transfer student has been admitted to the program. The program offers academic and personal mentoring for students in all grades. Several extracurricular event are also have been held. COVID-19 pandemic affected the number of such events during the academic year.

Tasks and duties of the Student Affairs and Attestation Department

The college has a student affairs unit whose mission is as follows:

- At the beginning of the year, you register students and complete their transactions.
- Over the days, you complete the student identity card.
- Follow up on the application of exam instructions, controls, decisions, and directives issued by the Ministry and the University regarding student affairs / preliminary studies.
- Implementation of orders and directives issued by the Ministry and the Presidency of the University in the field of student affairs and graduates of preliminary studies.
- Answering official correspondence received from the department (ministry, attachés, university presidency, colleges, departments, ministries, governmental and non-governmental institutions, etc.).
- Unifying the admission plans received from the colleges, presenting the studies regarding them, and submitting them to the University Council.
- Check admission, transfer and hosting in coordination with the registration departments in the colleges.
- Issuing orders for students' admission, transportation and hosting.

- Coordinating with colleges and other relevant authorities to check the validity of the issuance of documents of accepted students and university graduates based on the correspondence of the beneficiary authorities.
- Inform the Ministry / Department of Studies, Planning and Follow-up of cases of forgery in academic and university documents that were discovered by the colleges.
- Issuing university orders for graduation for the morning and evening studies and for the two courses in light of the administrative orders issued by the colleges.
- Carrying out field visits to the registration departments in the colleges in order to achieve direct interaction, to see the reality of the work, and to help overcome problems, if any.
- Holding meetings and workshops for assistant deans, directors of registration and examination committees in order to improve performance.
- Suggesting activities and training programs for the development of registration staff and examination committees in colleges, as well as implementing them if the possibility is available.
- Preparing studies and proposals regarding the performance of the registration people and examination committees in accordance with the examination instructions, controls, and directives of the university presidency.
- Supervising the application process for evening studies in the colleges of the university and following up on that and announcing their acceptance and distribution to the colleges and departments after obtaining the original approvals.
- Participation in auditing and investigation committees related to student affairs.
- Developing the capabilities of employees, especially those proposed by the university or department, through the participation of the department's

employees in training and development courses, and attending official meetings of the department and the university.

- Authentication of documents of graduates of university faculties for primary and higher studies, as well as attestation of professors' service summary.
- Sending lists of the names of graduates of the university's faculties to the website of the University of Baghdad for the purpose of publishing them in the light of the faculties' data.
- Using electronic programs at work, including achieving electronic archiving of mail and using e-mail for correspondence with institutions inside and outside Iraq.
- Receiving students or their families, listening to their academic problems and working to solve them according to instructions, controls and directives.

2-5 Work in Lieu of Courses

The college of Engineering/Department of *Mobile Communications and Computing Engineering* does not allow credit towards any degree based on work or life experience.

There are no new or added options or tracks for the preliminary studies of the Department of *Mobile Communications and Computing Engineering*.

2-6 Graduation Requirements

Graduates are required to successfully pass all classes in all grades to graduate. In the third year, all students are required to successfully complete summer practical training in accredited governmental facilities and also in private sector communications companies. This program has no graduates yet, so no transcript available to include in this report.

Students are required to successfully complete four years in all subjects (240 credits), including semesters per year, summer courses, and one graduation project, and those who fail any of these semesters are required to retake. To graduate from our program,

the number of failed classes over the entire period of study cannot exceed two, and a cumulative grade point score in each course must be achieved of 50% or higher.

Areas of work of college graduates

Graduates of the department can work in one of the following fields of work:

- ☐ Telecom and mobile phone companies.
- ☐ Design and management of computer networks.
- ☐ Automation systems, Internet and IOT
- ☐ Management of information systems and electronic governance.
- ☐ Design and development of applications and software for tablets and websites.
- ☐ Radio planning for wireless and mobile networks. RF Planning

Study plan for the Department of Mobile Communications and Computing Engineering

**System type: semester system
for the period from 2022 to 2023**

(TH): theoretical

(P): Practical

Tutorial: (T)

(U): unit

The first stage first semester (11)

| # | Subject | TH | T | P | U | Code |
|---|--------------------------------|----|---|---|---|---------|
| 1 | Mathematics I | 3 | 1 | - | 3 | MAT1101 |
| 2 | Logic Circuits I | 2 | | 3 | 3 | LOC1102 |
| 3 | Electrical Circuits Analysis I | 2 | 1 | 3 | 3 | ECA1103 |
| 4 | Programming Fundamentals I | 2 | | 2 | 3 | PRL1104 |
| 5 | English Language I | 2 | | - | 2 | ENL1105 |

| | | | | | | |
|---|---------------------|----|---|----|----|---------|
| 6 | Engineering Drawing | - | | 3 | 1 | EDR1106 |
| 7 | Human Rights | 1 | | - | 1 | HRS1107 |
| 8 | Arabic Language | 2 | | - | 2 | ARL1108 |
| | Total | 14 | 2 | 11 | 18 | |

The first stage
Second semester (11)

| # | Subject | TH | T | P | U | Code |
|---|---------------------------------|----|---|---|----|---------|
| 1 | Mathematics II | 3 | 1 | - | 3 | MAT1201 |
| 2 | Logic Circuits II | 2 | | 3 | 3 | LOC1202 |
| 3 | Electrical Circuits Analysis II | 2 | 1 | 3 | 3 | ECA1203 |
| 4 | Programming Fundamentals II | 2 | | 2 | 3 | PRL1204 |
| 5 | English Language II | 2 | | - | 2 | ENL1205 |
| 6 | Mathematics for Computing | 2 | 1 | - | 2 | MAC1206 |
| 7 | Computer Fundamentals | 2 | | - | 2 | CMF1207 |
| 8 | Freedom and Democracy | 1 | | - | 1 | ARL1208 |
| | Total | 16 | 3 | 8 | 19 | |

The Second stage
first semester (21)

| # | Subject | TH | T | P | U | Code |
|---|-------------------------------|----|---|----|----|---------|
| 1 | Engineering Mathematics I | 3 | 1 | - | 3 | EMA2101 |
| 2 | Electronics I | 2 | | 3 | 3 | ELE2102 |
| 3 | Communications I | 2 | 1 | 2 | 3 | COM2103 |
| 4 | Microprocessors I | 2 | | 2 | 3 | MPS2104 |
| 5 | Web Programming I | 2 | | 2 | 3 | WPR2105 |
| 6 | Object Oriented Programming I | 2 | | 2 | 3 | OOP2106 |
| 7 | Electromagnetic Fields | 2 | | - | 2 | EMF2107 |
| 8 | English Language II | 2 | | - | 2 | ENL2108 |
| | Total | 17 | 2 | 11 | 22 | |

The Second stage
Second semester (22)

| # | Subject | TH | T | P | U | Code |
|---|--------------------------------|----|---|----|----|---------|
| 1 | Engineering Mathematics II | 3 | 1 | - | 3 | EMA2201 |
| 2 | Electronics II | 2 | 1 | 3 | 3 | ELE2202 |
| 3 | Communications II | 2 | | 2 | 3 | COM2203 |
| 4 | Microprocessors II | 2 | | 2 | 3 | MPS2204 |
| 5 | Web Programming II | 2 | | 2 | 3 | WPR2205 |
| 6 | Object Oriented Programming II | 2 | | 2 | 3 | OOP2206 |
| 7 | Operating Systems | 2 | | - | 2 | OPS2207 |
| 8 | Statistics and Probability | 2 | | - | 2 | STP3208 |
| | Total | 17 | 2 | 11 | 22 | |

The Third stage
first semester (31)

| # | Subject | TH | T | P | U | Code |
|---|---|----|---|----|----|----------|
| 1 | Embedded Systems I | 2 | | 2 | 3 | EMB3101 |
| 2 | Fundamentals of Mobile Applications | 2 | 1 | 2 | 3 | FMA3102 |
| 3 | Wireless Communications Networks I | 2 | 1 | 2 | 3 | WCN3103 |
| 4 | Elective Topic I (Human-Computer Interaction) | 2 | | - | 2 | HCI3104 |
| 5 | Digital Communications | 3 | | 3 | 4 | DCM3105 |
| 6 | Computer Networks I | 2 | | 2 | 3 | CMN3106 |
| 7 | Mobile Computing | 2 | 1 | - | 2 | MCP31087 |
| 8 | English Language III | 2 | | - | 2 | EN3108 |
| | Total | 17 | 3 | 11 | 22 | |

The Third stage
Second semester (32)

| # | Subject | TH | T | P | U | Code |
|---|---------|----|---|---|---|------|
|---|---------|----|---|---|---|------|

| | | | | | | |
|---|--|----|---|----|----|---------|
| 1 | Embedded Systems II | 2 | | 2 | 3 | EMB3201 |
| 2 | Mobile Applications Design | 2 | 1 | 2 | 3 | MAD3202 |
| 3 | Wireless Communications Networks II | 2 | 1 | 2 | 3 | WCN3203 |
| 4 | Antennas and Wave Propagation | 2 | | 2 | 3 | AWP3204 |
| 5 | Digital Signal Processing | 2 | | - | 2 | DSP3205 |
| 6 | Computer Networks II | 2 | 1 | 2 | 3 | CMN3206 |
| 7 | Multimedia Systems | 2 | | - | 2 | MMS3207 |
| 8 | Elective Topic II (Information Theory and Coding) | 2 | 3 | - | 2 | DBS3208 |
| | Total | 16 | 6 | 10 | 21 | |

The Fourth stage
first semester (41)

| # | Subject | TH | T | P | U | Code |
|---|--|----|---|----|----|---------|
| 1 | Graduation Project I | 1 | | 2 | 2 | GPJ4101 |
| 2 | Mobile Communications I | 2 | 1 | 2 | 3 | MCM4102 |
| 3 | Project Management I | 2 | | 2 | 3 | PMT4103 |
| 4 | Computer Networks Administration | 2 | | 2 | 3 | CNA4104 |
| 5 | Mobile Applications Development | 3 | | 2 | 3 | MAD4105 |
| 6 | Elective Topic III (Networks Security) | 2 | | - | 2 | NWS4106 |
| 7 | English Language IV | 2 | | - | 2 | ENL4107 |
| | Total | 14 | 1 | 10 | 18 | |

The Fourth stage
Second semester (42)

| # | Subject | TH | T | P | U | Code |
|---|------------------------------------|----|---|---|---|---------|
| 1 | Graduation Project II | 1 | 1 | 2 | 2 | PRJ4201 |
| 2 | Mobile Communications II | 2 | 1 | 2 | 3 | MCM4202 |
| 3 | Project Management II | 2 | | 2 | 3 | PMT4203 |
| 4 | Optical Fiber Communications | 2 | | 2 | 3 | OFC4204 |
| 5 | Elective Topic IV (Soft Computing) | 2 | | - | 2 | SCP4205 |
| 6 | Internet of Things | 2 | | - | 2 | IOT4206 |

| | | | | |
|-------|----|---|---|----|
| Total | 11 | 2 | 8 | 15 |
|-------|----|---|---|----|

(Elective Topics)

- 1- Fifth Generation Wireless Technologies.
- 2- Cloud Computing.
- 3- RF Systems and Circuit Design.
- 4- Image Processing.
- 5- Distributed Database Systems.
- 6- Telecom and Packet Networks.
- 7- Information Theory and Coding
- 8- Microwave Engineering

Curriculum summary of the department

| Details Number of items No. of units | Details Number of items No. of units | Details Number of items No. of units |
|--------------------------------------|--------------------------------------|--------------------------------------|
| 154 | 58 | Total curriculum |
| 103 | 37 | Total Engineering Materials |
| 16 | 6 | Optional materials |
| 3105 | | Total number of hours for four years |

2-7 Transcripts of Recent Graduates

The transcript states the degree awarded is a Bachelor of Science, and the major is Mobile Communications and Computing Engineering.

3- PROGRAM EDUCATIONAL OBJECTIVES

Vision, mission, and goals

The long-term future of digital communications lies in the use of mobile devices, rather than fixed ones. Over the past few years, developers and consumers have seen an increase in mobile communications with an emphasis on mobile software and hardware, and most of all with an emphasis on quality of service and cost-performance. And in this engineering section, we look forward to showing the recent important developments in the field of communications and mobile computing within a broader context and keeping pace with the rapid development in the digital communications industry. And through the program prepared according to solid scientific standards, students will acquire theoretical and practical competence in mobile phone technology, so that they can design and develop operational and application software and appropriate devices, in addition to acquiring professional skills in considerations of planning mobile and wireless network systems, and thus they will be able to benefit from opportunities High and long-term employment due to their rare specialized expertise.

3.1 A. Mission Statement

The vision

Our vision is that the Mobile Computing and Communications Engineering Department in the near future will be the leading engineering departments locally, regionally and internationally by providing a high quality educational system.

Department message

Graduating skilled and innovative engineering cadres required in the labor market with unique and rare skills, self-motivation and ethical professional values that enable them to research and develop and keep pace with modern technology and be the focus of attention of those interested in serving the community.

The graduation of skilled and innovative engineering staff required in the labor market with self-motivation and ethical professional values that enable them to research and develop and keep pace with the technology in order to serve the community.

The following objectives can be found on the online website of the department at:

https://uoitc.edu.iq/single-standard_eng.php?art_id=1682

Goals

The objectives of the department are summarized in focusing on three important axes (knowledge, skills, and behavior), and from them the following educational objectives were identified:

1. Ensure that the graduate student possesses the skills and knowledge required to design mobile communication systems. Ensure that the graduate student has the skills and knowledge required to design, operate and test mobile communications systems and be able to solve emerging problems.
 2. The graduated student should be able to adapt to different work environments and deal with them positively. The graduate student should be able to adapt to different work environments and deal with them through communication skills and the ability to work positively within multidisciplinary teams or independently while carrying out complex tasks.
 3. The student should be able to integrate academic knowledge with field practice in order to develop his skills. That the student be able to integrate academic knowledge with field practice in order to develop the engineering profession within his field of specialization within the framework of social values and professional ethics.
 4. The student should be able to continue developing his information and skills for life and benefit from everything new in the field of specialization.
- Work on to have the graduate student skills and knowledge required to design mobile communications systems
 - The graduate student should be able to adapt to different work environments through affirmative action within multidisciplinary teams.

- The student should be able to integrate academic knowledge with field practice in order to develop the engineering profession.
- The student should be able to continue to develop his knowledge and skills for life and to benefit from every new in the field of competence.

The outputs of the educational program of the department

With the student completing his studies within the department's program, he will be able to:

- ☐ Apply knowledge in the fields of mathematics and specialized engineering sciences in the field of mobile computing communications.
- ☐ Solve problems by designing appropriate algorithms.
- ☐ Continuing self-learning and acquiring new technologies and skills in the field of communications engineering, networks and mobile applications.
- ☐ Design, implementation and evaluation of mobile phone systems and programs necessary for implementation.
- ☐ Management and planning of radio frequencies for mobile networks.

3.2 B. Program Educational Objectives

The objectives of the department are summarized in focusing on three important axes (knowledge, skills, and behavior), and from them the following educational objectives were identified:

1. Ensure that the graduate student possesses the skills and knowledge required to design mobile communication systems. Ensure that the graduate student has the skills and knowledge required to design, operate and test mobile communications systems and be able to solve emerging problems.
2. The graduated student should be able to adapt to different work environments and deal with them positively. The graduate student should be able to adapt to different work environments and deal with them through communication skills and the ability

to work positively within multidisciplinary teams or independently while carrying out complex tasks.

3. The student should be able to integrate academic knowledge with field practice in order to develop his skills. That the student be able to integrate academic knowledge with field practice in order to develop the engineering profession within his field of specialization within the framework of social values and professional ethics.

4. The student should be able to continue developing his information and skills for life and benefit from everything new in the field of specialization.

3.3 C. Consistency of the Program Educational Objectives with the Mission of the Institution

“Our goal is to prepare students to compete by developing their intellectual processes. We teach our students to effectively think, communicate, and analyze within a global context.”

With the student completing his studies within the department's program, he will be able to:

- ☐ Apply knowledge in the fields of mathematics and specialized engineering sciences in the field of mobile computing communications.
- ☐ Solve problems by designing appropriate algorithms.
- ☐ Continuing self-learning and acquiring new technologies and skills in the field of communications engineering, networks and mobile applications.
- ☐ Design, implementation and evaluation of mobile phone systems and programs necessary for implementation.
- ☐ Management and planning of radio frequencies for mobile networks.

3.4 D. Program Constituencies

The administrative organization of the department.

- 1- The Deanship.
- 2- Heading the department.

- 3- The decision of the department.
- 4- Lecturer.
- 5- Teaching assistants.
- 6- Secretary of the department.
- 7- Students.

3.5 E. Process for Review of the Program Educational Objectives

The process of reviewing the educational goals takes place through the department council as well as the committees composed in the department of the professors of the concerned department. Then there are units and divisions in which the educational goals of the program are reviewed, then the college, then the university and the ministry, as the ministry constantly sends supervision committees to ensure that the educational program continues without problems.

4- STUDENT OUTCOMES

4.1 A. Student Outcomes

Graduates of the department can work in one of the following fields of work:

- ☐ Telecom and mobile phone companies.
- ☐ Design and management of computer networks.
- ☐ Automation systems, Internet and IOT
- ☐ Management of information systems and electronic governance.
- ☐ Design and development of applications and software for tablets and websites.
- ☐ Radio planning for wireless and mobile networks. RF Planning.

The outputs of the educational program of the department

With the student completing his studies within the department's program, he will be able to:

- ☐ Apply knowledge in the fields of mathematics and specialized engineering sciences in the field of mobile computing communications.
- ☐ Solve problems by designing appropriate algorithms.
- ☐ Continuing self-learning and acquiring new technologies and skills in the field of communications engineering, networks and mobile applications.
- ☐ Design, implementation and evaluation of mobile phone systems and programs necessary for implementation.
- ☐ Management and planning of radio frequencies for mobile networks.

4.2 B. Publication of Student Outcomes

The computer science student outcomes are publicly available on our university's website.

- Work on to have the graduate student skills and knowledge required to design mobile communications systems
- The graduate student should be able to adapt to different work environments through affirmative action within multidisciplinary teams.
- The student should be able to integrate academic knowledge with field practice in order to develop the engineering profession.
- The student should be able to continue to develop his knowledge and skills for life and to benefit from every new in the field of competence.

5-CONTINUOUS IMPROVEMENT

This program has graduate students during the year of the review 2022-2023.

5.1 A. Student Outcomes

Graduates of the department can work in one of the following fields of work:

- ☐ Telecom and mobile phone companies.
- ☐ Design and management of computer networks.
- ☐ Automation systems, Internet and IOT
- ☐ Management of information systems and electronic governance.
- ☐ Design and development of applications and software for tablets and websites.
- ☐ Radio planning for wireless and mobile networks. RF Planning.

The outputs of the educational program of the department

With the student completing his studies within the department's program, he will be able to:

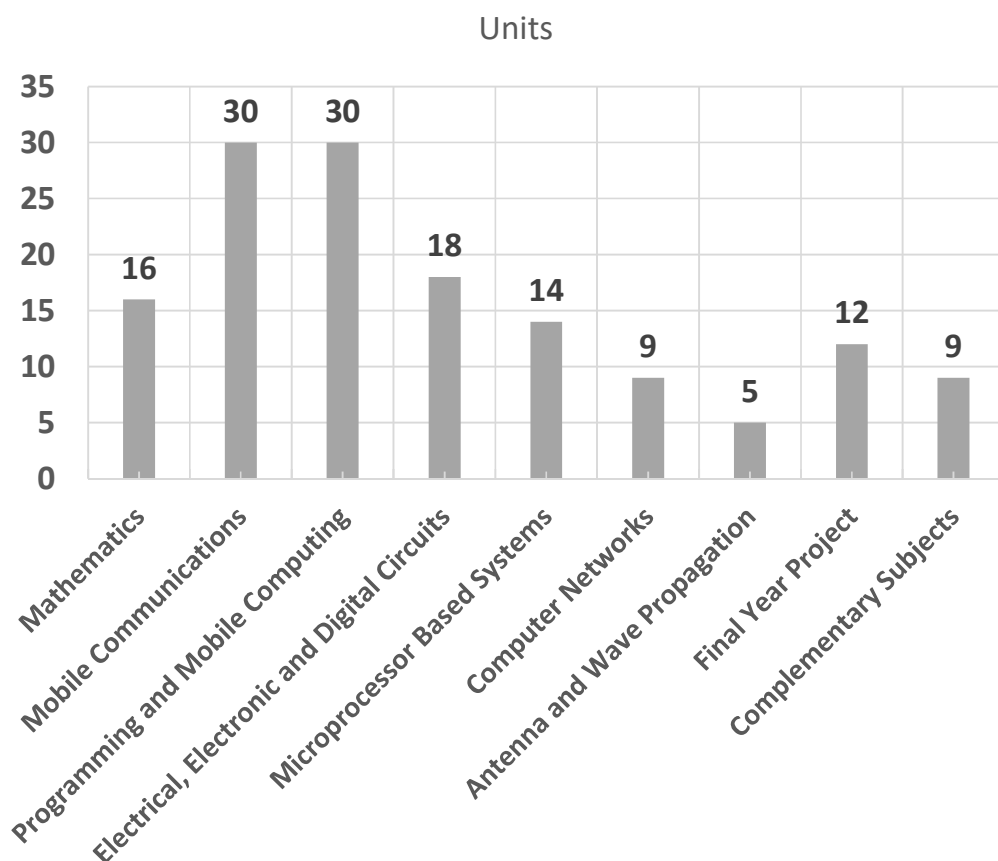
- ☐ Apply knowledge in the fields of mathematics and specialized engineering sciences in the field of mobile computing communications.
- ☐ Solve problems by designing appropriate algorithms.
- ☐ Continuing self-learning and acquiring new technologies and skills in the field of communications engineering, networks and mobile applications.
- ☐ Design, implementation and evaluation of mobile phone systems and programs necessary for implementation.
- ☐ Management and planning of radio frequencies for mobile networks.

Structure of the program

- The first and second year in this section provides students with a strong practical and theoretical foundation in programming languages, object programming, digital and analog electronics, electrical science, basic mathematics and

engineering. In addition, students will be scientifically prepared to specialize in communications engineering and mobile computing.

- In the third year, the student will be able to attend many specialized subjects in the field of advanced communications, networking and software engineering for the development of mobile applications.
- In the final year, in addition to the study of advanced specialist subjects, students will implement an important group engineering project aimed at solving the real world problem in the field of communication or computerization of mobile devices. The project includes advanced design, experience in implementation and confidence-building through the application of the skills and techniques acquired during the course of its study.
- The curriculum consists of 154 quarterly units taught by the student in (4) four years of study and two semesters per year. These modules are divided into 9 main areas of specialization in communications and mobile computing engineering, which were distributed in eight semesters sequentially with the progress of the study stages. Figures 1 and 2 below show the share of each module and its distribution within the four years.



| Year 1 | | Year 2 | | Year 3 | | Year 4 | |
|---|----------------------|----------------------|--|----------------------|----------------------|----------------------|----------------------|
| 1 st Sem. | 2 nd Sem. | 1 st Sem. | 2 nd Sem. | 1 st Sem. | 2 nd Sem. | 1 st Sem. | 2 nd Sem. |
| Mathematics | | | | | | | |
| MAT1101 | MAT1201 MAC1206 | EMA2101 STP2108 | EMA2201 | 16 Units | | | |
| | | | | | | | |
| Electrical, Electronic and Digital Circuits | | | | | | | |
| DSD1102 ECT1103 | DSD1202 ECT1203 | ELE2102 | ELE2202 | 18 Units | | | |
| | | | | | | | |
| Programming and Mobile Computing | | | | | | | |
| PRL1104 | PRL1204 | WPR2105 OOP2106 | WPR2205 OOP2206 OPS3107 MCP2208 | MAD3102 | MAD3202 | 30 Units | SCP4205 |
| | | | | | | | |
| Microprocessor Based Systems | | | | | | | |
| | CMA1207 | MPS2104 | MPS2204 | EMB3101 | EMB3201 | 14 Units | |
| | | | | | | | |
| Communications | | | | | | | |
| 30 Units | | COM2103 | COM2203 | DCM3106 WCN3103 | DSP3206 WCN3203 | MCM4102 ITC3205 | MCM4202 OFC4204 |
| | | | | | | | |
| Computer Networks | | | | | | | |
| 9 Units | | | | CMN3107 | CNP3207 | CNA4104 | |
| | | | | | | | |
| Antenna and Wave Propagation | | | | | | | |
| 5 Units | | EMF2107 | | | AWP3204 | | |
| | | | | | | | |
| Final Year Project | | | | | | | |

| | | | | | | |
|-------------------------------|--|--|--|----------------------------|----------------------------|----------------------------|
| 12 Units | | | | | PRJ4101 PMT4103 | PRJ4201 PMT4203 |
| | | | | | | |
| Complementary Subjects | | | | | | |
| 11 Units | | | | MMS3107 HCI3104 | DBS3207 | NWS4106 IOT4206 |

6- CURRICULUM

6.1 A. Program Curriculum

Several tables describe the plan of study for this program. Table below Curriculum describes the plan of study for students in this program. This plan includes information on course offerings in the form of a recommended schedule by year.

Field Supervisor Evaluation (60% of the grade)

- The supervisor completes an evaluation of the student, including how prepared for this experience the student was in terms of (a) overall academic training, (b) preparation in academic major, (c) basic written/verbal skills, and (d) maturity.
- The student is also evaluated on (a) professional attitude, (b) relations with others, (c) ability to learn, (d) initiative, (e) quality of work, (f) quantity of work, (g) attendance, (h) punctuality, and (i) overall performance.

Internship Report and Daily Task Log (40% of the grade)

- The students reflect on what they learned, their participation in teamwork, and their recognition of any ethical dilemmas. Their overall reflection should detail positive and negative observations and how the internship experience will help in their career.
- A task log indicates the number of hours worked each week and the tasks performed. The supervisor signs off on the weekly task log.

6.2 B. Course Syllabi

Curriculum for the four-year program is shown in Table I.

Academic schedule for the year 2022-2023

**College of Engineering / Department of Mobile Communications and
Computing Engineering / first stage / second semester / 2022-2023**

| TIME | 8:30 - 9:30 | 9:30 - 10:30 | 10:30 - 11:30 | 11:30 - 12:30 | 12:30 - 13:30 | 13:30 - 14:30 |
|--------|--------------------------|-----------------|------------------------------|------------------|------------------|------------------|
| Sunday | Computer Fundamentals | | Mathematics for Computing | | ساعة طلابية | |
| | م.د عبدالله سنان | | م.د علا عادل | | | |
| | قاعة 4 | | قاعة 4 | | | |

| | | | | |
|-----------|---------------------------------------|--|---------------------------------------|--|
| Monday | Mathematics II | Freedom & Democracy | Mathematics II | ساعة طلابية |
| | م.د نغم علي حسين | م.م هديل حسين | م.د نغم علي حسين | |
| | قاعة 4 | قاعة 4 | قاعة 4 | |
| Tuesday | Electrical Circuits Analysis II Lab | | Electrical Circuits Analysis II Lab | |
| | م.م مصطفى عبدالله+م.م انسام قاسم كامل | | م.م مصطفى عبدالله+م.م انسام قاسم كامل | |
| | Lab 3 (G1) Time (8:30-11:00) | | Lab 3 (G2) Time (11:00-1:30) | |
| | Logic Circuits II Lab | | Logic Circuits II Lab | |
| | ا.م.د عمران موسى - م.م سري عادل عباس | | ا.م.د عمران موسى - م.م سري عادل عباس | |
| | Lab 2 (G2) Time (8:30-11:00) | | Lab 2 (G1) Time (11:00-1:30) | |
| Wednesday | Electrical Circuits Analysis II | Logic Circuits II | | ساعة طلابية |
| | م.م مصطفى عبدالله | م.م سري عادل عباس | | |
| | قاعة 4 | قاعة 4 | | |
| Thursday | Programing Fundamentals II | Programing Fundamentals II Lab | | Programing Fundamentals II Lab |
| | م.م محمد حسن مكطوف | م.م محمد حسن مكطوف+م.م اسراء عبدالامير رسن+م.م فراس اياد عبدالرحمن | | م.م محمد حسن مكطوف+م.م اسراء عبدالامير رسن+م.م فراس اياد عبدالرحمن |
| | قاعة 2 | Lab 8 (G2) Time (10:30-12:00) | | Lab 8 (G1) Time (12:00-1:30) |

College of Engineering / Department of Mobile Communications and Computing Engineering / Second stage / second semester / 2022-2023

| TIME | 8:30 - 9:30 | 9:30 - 10:30 | 10:30 - 11:30 | 11:30 - 12:30 | 12:30 - 13:30 | 13:30 - 14:30 |
|---------------|--|---------------------|--|----------------------|--|----------------------|
| Sunday | Web Programming II | | Communications II | | Object Oriented Programming II | |
| | م.م مها خليل ابراهيم | | أ.م.د جعفر عذاب عنكود | | م.م احمد سعد | |
| | Time (8:30-10.00) قاعة 2 | | قاعة 2 (10:00-11.45) Time | | قاعة 2 (12:00-1:30) Time | |
| Monday | Communications II Lab | | Web Programming II Lab | | Object Oriented Programming II Lab | |
| | م.م سري عادل عباس+م.م فراس اياد عبدالرحمن+مهندسة انفال رعد | | م.م مها خليل ابراهيم+م.م اسراء عبدالامير رسن | | م.م احمد سعد - م.م منير سمير غني | |
| | Lab 6 (G1) Time (8:30-10.00) | | Lab 3 (G1) Time (10:00-11.45) | | Lab 6 (G1) Time (12:00-1:30) | |
| | Object Oriented Programming II Lab | | Communications II Lab | | Web Programming II Lab | |
| | م.م احمد سعد - م.م منير سمير غني | | م.م سري عادل عباس+م.م فراس اياد عبدالرحمن+مهندسة انفال رعد | | م.م مها خليل ابراهيم+م.م اسراء عبدالامير رسن | |
| | Lab 3 (G2) Time (8:30-10.00) | | Lab 6 (G2) Time (10:00-11.45) | | Lab 3(G2) Time (12:00-1:30) | |
| | Microprocessors II | | Operating System | | Statistics and Probability | |

| | | | | |
|-----------|--|----------------------------|--|-------------|
| Tuesday | أ.د مؤيد عبدالرضا صاحب | م.د شيماء | م. منير سمير غني | |
| | قاعة 2 (8:30-10.00) Time | قاعة 2 (10:00-11.45) Time | قاعة 2 (12:00-1:30) Time | |
| Wednesday | Electronics II | Engineering Mathematics II | | ساعة طلابية |
| | م.د طيف علي مهدي | م.م محمد خضير عباس | | |
| | قاعة 2 | قاعة 2 | | |
| Thursday | Microprocessors II Lab | ساعة طلابية | Electronics II Lab | |
| | م.م هبة عايد وسمي+م.د يقين صباح مزعل+مهندسة رسل لبيب | | م.د طيف علي مهدي+م.م اية حسن عبدالقادر + مهندسة هدى مؤيد | |
| | Lab 6 (G1) | | Lab 3 (G1) Time (11:30-1:30) | |
| | Electronics II Lab | | Microprocessors II Lab | ساعة طلابية |
| | م.د طيف علي مهدي+م.م اية حسن عبدالقادر + مهندسة هدى مؤيد | | م.م هبة عايد وسمي+م.د يقين صباح مزعل+مهندسة رسل لبيب | |
| | Lab 3 (G2) Time (8:30-10.00) | | Lab 6 (G2) Time (11:00-1.00) | |

**College of Engineering / Department of Mobile Communications and
Computing Engineering / Third stage / second semester / 2022-2023**

| TIME | 8:30 - 9:30 | 9:30 - 10:30 | 10:30 - 11:30 | 11:30 - 12:30 | 12:30 - 13:30 | 13:30 - 14:30 |
|----------------|---|---|---------------|---|---------------|---------------|
| Sunday | Embedded Systems II Lab | Wireless Communication Networks II Lab | | Computer Networks II Lab | | |
| | م.م ابراهيم عباس امين.م.م علي محمد لعبيبي | م.د هند سالم+م.م انسام قاسم كامل | | م.م محمد حسن مكطوف+م.م اية حسن عبدالقادر | | |
| | Lab 7 (G1) Time (8:30-10.00) | Lab 6 (G2) Time (10:00-11.45) | | Lab 3 (G3) Time (12:00-1:30) | | |
| | Computer Networks II Lab | Embedded Systems II Lab | | Wireless Communication Networks II Lab | | |
| | م.م محمد حسن مكطوف+م.م اية حسن عبدالقادر | م.م ابراهيم عباس امين.م.م علي محمد لعبيبي | | م.د هند سالم+م.م انسام قاسم كامل | | |
| | Lab 3 (G2) Time (8:30-10.00) | Lab 7 (G3) Time (10:00-11.45) | | Lab 6 (G1) Time (12:00-1:30) | | |
| | Wireless Communication Networks II Lab | Computer Networks II Lab | | Embedded Systems II Lab | | |
| | م.د هند سالم+م.م انسام قاسم كامل | م.م محمد حسن مكطوف+م.م اية حسن عبدالقادر | | م.م ابراهيم عباس امين.م.م علي محمد لعبيبي | | |
| Monday | Information Theory and Coding | Embedded Systems II | | Multimedia Systems | | |
| | أ.م.د ناظر ابراهيم عبد الخالق | م.م ابراهيم عباس امين | | م.د. غادة عماد قاسم | | |
| | Time (8:30-10.00) القاعة الرئيسية | القاعة (10:00-11.45) الرئيسية | | القاعة (12:00-1:30) الرئيسية | | |
| Tuesday | Computer Networks II | Digital Signal Processing | | Wireless Communication Networks II | | |

| | | | |
|-----------|--|--|--|
| | م.م. سعدي محمد سعدي | د. سمير كليبان | م.د. هند سالم |
| | Time (8:30-10.00) القاعة الرئيسية | Time (10:00-11.45) القاعة الرئيسية | Time (12:00-1:30) القاعة الرئيسية |
| Wednesday | Mobile Applications Design Lab | Antennas & Wave Propagation Lab | Mobile Applications Design Lab |
| | م. منير سمير غني - م.م. احمد سعد | م.د. ياسين ناصر جرن.م. علي محمد لعبيبي | م. منير سمير غني - م.م. احمد سعد |
| | Lab 3 (G2) Time (8:30-10.00) | Lab 8 (G1) Time (10:00-11.45) | Lab 3 (G1) Time (12:00-1:30) |
| | Antennas & Wave Propagation Lab | Mobile Applications Design Lab | Antennas & Wave Propagation Lab |
| | م.د. ياسين ناصر جرن.م. علي محمد لعبيبي | م. منير سمير غني - م.م. احمد سعد | م.د. ياسين ناصر جرن.م. علي محمد لعبيبي |
| | Lab 8 (G3) Time (8:30-10.00) | Lab 3 (G3) Time (10:00-11.45) | Lab 8 (G2) Time (12:00-1:30) |
| Thursday | Antennas & Wave Propagation | Mobile Applications Design | |
| | م.د. ياسين ناصر جرن | أ.م.د. محمد ماهر رشيد | |
| | Time (8:30-10:00) القاعة الرئيسية | Time (10:00-11:45) القاعة الرئيسية | |

College of Engineering / Department of Mobile Communications and Computing Engineering / Fourth stage / second semester / 2022-2023

| TIME | 8:30 - 9:30 | 9:30 - 10:30 | 10:30 - 11:30 | 11:30 - 12:30 | 12:30 - 13:30 | 13:30 - 14:30 |
|-----------|------------------------------|---|---|---------------|---------------|---------------|
| Sunday | Graduation Project | | | | | |
| Monday | Mobile Communications II | Mobile Communications II Lab | Mobile Communications II Lab | | | |
| | م.م. محمد خضير عباس | م.م. محمد خضير عباس.م.د. يقين صباح مزعل | م.م. محمد خضير عباس.م.د. يقين صباح مزعل | | | |
| | Time (8:30-10.00) قاعة 2 | Lab 8 (G1) Time (10:00-11.45) | Lab 8 (G2) Time (12:00-1:30) | | | |
| Tuesday | Optical Fiber Communications | Optical Fiber Communications Lab | Optical Fiber Communications Lab | | | |
| | م.د. ثناء حسين علي | م.د. ثناء حسين علي.م.م. فراس اياد عبدالرحمن | م.د. ثناء حسين علي.م.م. فراس اياد عبدالرحمن | | | |
| | Time (8:30-10.00) قاعة 4 | Lab 6 (G2) Time (10:00-11.45) | Lab 6 (G1) Time (12:00-1:30) | | | |
| Wednesday | Internet of Things | Soft Computing | مشاريع عملي | | | |
| | م.م. ابراهيم عباس امين | م.د. غادة عماد قاسم | | | | |
| | Time (8:30-10.00) قاعة 6 | Time (10:00-11.45) قاعة 6 | | | | |
| Thursday | Project Management II | Project Management II Lab | Project Management II Lab | | | |

| | | | |
|--|------------------------------------|--|--|
| | م.د نغم علي حسين | م.د نغم علي حسين+م.م اسراء عبدالامير رسن+ مهندسة مروة نافع | م.د نغم علي حسين+م.م اسراء عبدالامير رسن+ مهندسة مروة نافع |
| | Time (8:30-10.00) قاعة 4 | Lab 7 (G1) Time (10:00-11.45) | Lab 7 (G2) Time (12:00-1:30) |

Table Program Curriculum

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|-----------------------------|-------------|-----------------------------|--|-------------------|-------|---|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | ENL1105 | English I | R | | | 2 | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | EDR1106 | Engineering Drawing | R | | 3 | | | 2021-second semester 2020-first semester 2022- first semester | |
| MCCE | ARL1108 | Arabic Language | R | | | 2 | | 2021-second semester 2020-first semester 2022- first semester | |
| MCCE | ECA1103 | Electrical Circuits I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | ECA1103 | Electrical Circuits I Lab. | R | | 3 | | | 2021-first semester 2020-first semester 2022- first semester | |

| | | | | | | | | | |
|------|---------|----------------------------------|---|---|---|--|---|--|--|
| MCCE | HRS1107 | Human Rights | R | | | | 1 | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | MAT1101 | Mathematics I | R | 3 | | | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | PRL1104 | Programming Fundamentals I Class | R | 2 | | | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | PRL1104 | Programming Fundamentals I Lab | R | 2 | | | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | LOC1102 | Logic Circuits I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | LOC1102 | Logic Circuits I Lab | R | | 3 | | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | MFC1206 | Mathematics for Computing | E | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | |

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|-------------|----------------|-----------------------------------|----------|----------|----------|--|--|--|--|
| MCCE | PRL1204 | Programming Fundamentals II Class | R | 2 | | | | 2021- second semester 2020- second semester 2022- second semester | |
| MCCE | PRL1204 | Programming Fundamentals II Lab | R | 2 | | | | 2021- second semester 2020- second semester 2022- second semester | |
| MCCE | CMF1207 | Computer Fundamentals | R | 2 | | | | 2021- second semester 2020- second semester 2022- second semester | |
| MCCE | ECA1203 | Electrical Circuits II Class | R | | 2 | | | 2021- second semester 2020- second semester 2022- second semester | |
| MCCE | ECA1203 | Electrical Circuits II Lab. | R | | 3 | | | 2021- second semester 2020- second semester 2022- second semester | |
| MCCE | MAT1201 | Mathematics I | R | 3 | | | | 2021- second semester 2020- second semester 2022- second semester | |
| MCCE | LOC1202 | Logic Circuits II Class | R | | 2 | | | 2021- second semester 2020- second semester 2022- second semester | |
| MCCE | LOC1202 | Logic Circuits II Lab | R | | 3 | | | 2021- second semester 2020- second semester 2022- second semester | |

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|-------------|----------------|----------------------------|----------|----------|----------|--|----------|--|--|
| MCCE | FAD1206 | Freedom and Democracy | R | | | | 1 | 2021- second semester 2020- second semester 2022- second semester | |
| MCCE | EMA2101 | Engineering Mathematics I | R | 3 | | | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | EMF2107 | Electromagnetic Fields | R | | 2 | | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | STP2208 | Statistics and Probability | R | 2 | | | | 2021-first semester 2020-second semester 2022- second semester | |
| MCCE | COM2103 | Communications I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- first semester | |
| MCCE | COM2103 | Communications I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022-first semester | |
| MCCE | MPS2104 | Microprocessor I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022-first semester | |
| MCCE | MPS2104 | Microprocessor I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022-first semester | |

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|-------------|----------------|-------------------------------------|----------|----------|----------|--|--|---|--|
| MCCE | ELE2102 | Electronics I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022-first semester | |
| MCCE | ELE2102 | Electronics I Lab | R | | 3 | | | 2021-first semester 2020-first semester 2022-first semester | |
| MCCE | OOP2106 | Object Oriented Programming I Class | R | 2 | | | | 2021-first semester 2020-first semester 2022-first semester | |
| MCCE | OOP2106 | Object Oriented Programming I Lab | R | 2 | | | | 2021-first semester 2020-first semester 2022-first semester | |
| MCCE | WPR2105 | Web programming I Class | R | 2 | | | | 2021-first semester 2020-first semester 2022-first semester | |
| MCCE | WPR2105 | Web programming I Lab | R | 2 | | | | 2021-first semester 2020-first semester 2022-first semester | |
| MCCE | EMA2201 | Engineering Mathematics II | R | 3 | | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | COM2203 | Communications II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |

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|------|---------|--------------------------------------|---|---|---|--|--|--|--|
| MCCE | COM2203 | Communications II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | MPS2204 | Microprocessor II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | MPS2204 | Microprocessor II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | ELE2202 | Electronics II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | ELE2202 | Electronics II Lab | R | | 3 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | OOP2206 | Object Oriented Programming II Class | R | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | OOP2206 | Object Oriented Programming II Lab | R | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | WPR2205 | Web programming II Class | R | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | |

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|------|---------|--------------------------------|---|---|---|--|--|--|--|
| MCCE | WPR2205 | Web programming II Lab | R | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | MCP3107 | Mobile Computing | E | | 2 | | | 2021-second semester 2020- second semester 2022- First semester | |
| MCCE | OPS2207 | Operating system | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | HCI3104 | Human Computer Interaction | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | DCM3105 | Digital Communications I Class | R | | 3 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | DCM3105 | Digital Communications I Lab | R | | 3 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | CMN3106 | Computer Networks I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | CMN3106 | Computer Networks I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | |

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|------|---------|---|---|--|---|--|--|--|--|
| MCCE | EMB3101 | Embedded Systems I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | EMB3101 | Embedded Systems I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | WCN3103 | Wireless Communication Network I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | WCN3103 | Wireless Communication Network I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | FMA3102 | Fundamental of Mobile Applications Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | FMA3102 | Fundamental of Mobile Applications Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | |
| MCCE | DBS3207 | Database Systems Class | R | | 2 | | | 2021-second semester 2020- second semester | |
| MCCE | DBS3207 | Database Systems Lab | R | | 2 | | | 2021-second semester 2020- second semester | |

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|-------------|----------------|--|----------|--|----------|--|--|---|--|
| MCCE | CMN3206 | Computer Networks II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | CMN3206 | Computer Networks II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | EMB3201 | Embedded Systems II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | EMB3201 | Embedded Systems II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | WCN3203 | Wireless Communication Network II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | WCN3203 | Wireless Communication Network II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | MAD3202 | Mobile Applications Design Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | MAD3202 | Mobile Applications Design Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |

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|------|---------|---|---|--|---|--|--|--|--|
| MCCE | AWP3204 | Antenna & Wave Propagation Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | AWP3204 | Antenna & Wave Propagation Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | DSP3205 | Digital Signal Processing | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | |
| MCCE | NWS4106 | Network Security | R | | 2 | | | 2021-first semester 2022-first semester | |
| MCCE | MMS3207 | Multimedia Systems | R | | 2 | | | 2022- second semester | |
| MCCE | DBS3208 | Elective Topic II (Information Theory and Coding) | R | | 2 | | | 2022- second semester | |
| MCCE | PMT4103 | Project Management I Class | R | | 2 | | | 2021-first semester 2022- first semester | |
| MCCE | PMT4103 | Project Management I Lab | R | | 2 | | | 2021-first semester 2022- first semester | |

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|-------------|----------------|--|----------|--|----------|--|--|---|--|
| MCCE | MCM4102 | Mobile Communications I Class | R | | 2 | | | 2021-first semester 2022- first semester | |
| MCCE | MCM4102 | Mobile Communications I Lab | R | | 2 | | | 2021-first semester 2022- first semester | |
| MCCE | CNA4104 | Computer Networks Administration Class | R | | 2 | | | 2021-first semester 2022- first semester | |
| MCCE | CNA4104 | Computer Networks Administration Lab | R | | 2 | | | 2021-first semester 2022- first semester | |
| MCCE | MAD4105 | Mobile Applications Development Class | R | | 3 | | | 2021-first semester 2022-first semester | |
| MCCE | MAD4105 | Mobile Applications Development Lab | R | | 2 | | | 2021-first semester 2022-first semester | |
| MCCE | GPJ4101 | Graduation Project I (Theory) | R | | 1 | | | 2021-first semester 2022-first semester | |
| MCCE | GPJ4101 | Graduation Project I (Practical) | R | | 2 | | | 2021-first semester 2022-first semester | |

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|-------------|----------------|------------------------------------|----------|--|----------|--|--|--|--|
| MCCE | IOT4206 | Internet of Things | R | | 2 | | | 2021-second semester 2022- second semester | |
| MCCE | OFC4204 | Optical Fiber Communications Class | R | | 2 | | | 2021-second semester 2022- second semester | |
| MCCE | OFC4204 | Optical Fiber Communications Lab | R | | 2 | | | 2021-second semester 2022- second semester | |
| MCCE | PMT4203 | Project Management II Class | R | | 2 | | | 2021- second semester 2022- second semester | |
| MCCE | PMT4203 | Project Management II Lab | R | | 2 | | | 2021- second semester 2022- second semester | |
| MCCE | PRJ4201 | Graduation Project II (Theory) | R | | 1 | | | 2021-second semester 2022- second semester | |
| MCCE | PRJ4201 | Graduation Project II (Practical) | R | | 2 | | | 2021- second semester 2022- second semester | |
| MCCE | MCM4202 | Mobile Communications I Class | R | | 2 | | | 2021-first semester 2022- second semester | |

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|---|----------------|-----------------------------|----------|---------------|---------------|--------------|--------------|--|----------|
| MCCE | MCM4202 | Mobile Communications I Lab | R | | 2 | | | 2021-first semester 2022- second semester | |
| MCCE | SCP4205 | Soft Computing | R | | 2 | | | 2021- second semester 2022- second semester | |
| TOTALS BASIC-LEVEL REQUIREMENTS | | | | 42 | 150 | 4 | 2 | - | - |
| OVERALL TOTAL CREDIT HOURS FOR COMPLETION OF THE PROGRAM | | | | 198 | | | | | |
| PERCENT OF TOTAL | | | | 21.212 | 75.758 | 2.020 | 1.010 | | |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|-----------------------------|-------------|-----------------------------|--|-------------------|-------|---|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | ENL1105 | English I | R | | | 2 | | 2021-first semester 2020-first semester 2022- first semester | 74 |
| MCCE | EDR1106 | Engineering Drawing | R | | 3 | | | 2021-second semester 2020-first semester 2022- first semester | 74 |
| MCCE | ARL1108 | Arabic Language | R | | | 2 | | 2021-second semester 2020-first semester 2022- first semester | 74 |
| MCCE | ECA1103 | Electrical Circuits I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- first semester | 74 |
| MCCE | ECA1103 | Electrical Circuits I Lab. | R | | 3 | | | 2021-first semester 2020-first semester 2022- first semester | 74 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|----------------------------------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | HRS1107 | Human Rights | R | | | | 1 | 2021-first semester 2020-first semester 2022- first semester | 74 |
| MCCE | MAT1101 | Mathematics I | R | 3 | | | | 2021-first semester 2020-first semester 2022- first semester | 74 |
| MCCE | PRL1104 | Programming Fundamentals I Class | R | 2 | | | | 2021-first semester 2020-first semester 2022- first semester | 74 |
| MCCE | PRL1104 | Programming Fundamentals I Lab | R | 2 | | | | 2021-first semester 2020-first semester 2022- first semester | 74 |
| MCCE | LOC1102 | Logic Circuits I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- first semester | 74 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|-----------------------------------|-------------|-----------------------------|--|-------------------|-------|---|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | LOC1102 | Logic Circuits I Lab | R | | 3 | | | 2021-first semester 2020-first semester 2022- first semester | 74 |
| MCCE | MFC1206 | Mathematics for Computing | E | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | 74 |
| MCCE | PRL1204 | Programming Fundamentals II Class | R | 2 | | | | 2021- second semester 2020- second semester 2022- second semester | 74 |
| MCCE | PRL1204 | Programming Fundamentals II Lab | R | 2 | | | | 2021- second semester 2020- second semester 2022- second semester | 74 |
| MCCE | CMF1207 | Computer Fundamentals | R | 2 | | | | 2021- second semester 2020- second semester 2022- second semester | 74 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|------------------------------|-------------|-----------------------------|--|-------------------|-------|---|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | ECA1203 | Electrical Circuits II Class | R | | 2 | | | 2021- second semester 2020- second semester 2022- second semester | 74 |
| MCCE | ECA1203 | Electrical Circuits II Lab. | R | | 3 | | | 2021- second semester 2020- second semester 2022- second semester | 74 |
| MCCE | MAT1201 | Mathematics I | R | 3 | | | | 2021- second semester 2020- second semester 2022- second semester | 74 |
| MCCE | LOC1202 | Logic Circuits II Class | R | | 2 | | | 2021- second semester 2020- second semester 2022- second semester | 74 |
| MCCE | LOC1202 | Logic Circuits II Lab | R | | 3 | | | 2021- second semester 2020- second semester 2022- second semester | 74 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|----------------------------|-------------|-----------------------------|--|-------------------|-------|---|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | FAD1206 | Freedom and Democracy | R | | | | 1 | 2021- second semester 2020- second semester 2022- second semester | 74 |
| MCCE | EMA2101 | Engineering Mathematics I | R | 3 | | | | 2021-first semester 2020-first semester 2022- first semester | 30 |
| MCCE | EMF2107 | Electromagnetic Fields | R | | 2 | | | 2021-first semester 2020-first semester 2022- first semester | 30 |
| MCCE | STP2208 | Statistics and Probability | R | 2 | | | | 2021-first semester 2020-second semester 2022- second semester | 30 |
| MCCE | COM2103 | Communications I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- first semester | 30 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|------------------------|-------------|-----------------------------|--|-------------------|-------|---|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | COM2103 | Communications I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022-first semester | 30 |
| MCCE | MPS2104 | Microprocessor I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022-first semester | 30 |
| MCCE | MPS2104 | Microprocessor I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022-first semester | 30 |
| MCCE | ELE2102 | Electronics I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022-first semester | 30 |
| MCCE | ELE2102 | Electronics I Lab | R | | 3 | | | 2021-first semester 2020-first semester 2022-first semester | 30 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|-------------------------------------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | OOP2106 | Object Oriented Programming I Class | R | 2 | | | | 2021-first semester 2020-first semester 2022-first semester | 30 |
| MCCE | OOP2106 | Object Oriented Programming I Lab | R | 2 | | | | 2021-first semester 2020-first semester 2022-first semester | 30 |
| MCCE | WPR2105 | Web programming I Class | R | 2 | | | | 2021-first semester 2020-first semester 2022-first semester | 30 |
| MCCE | WPR2105 | Web programming I Lab | R | 2 | | | | 2021-first semester 2020-first semester 2022-first semester | 30 |
| MCCE | EMA2201 | Engineering Mathematics II | R | 3 | | | | 2021-second semester 2020- second semester 2022- second semester | 30 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|-------------------------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | COM2203 | Communications II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 30 |
| MCCE | COM2203 | Communications II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 30 |
| MCCE | MPS2204 | Microprocessor II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 30 |
| MCCE | MPS2204 | Microprocessor II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 30 |
| MCCE | ELE2202 | Electronics II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 30 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|--------------------------------------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | ELE2202 | Electronics II Lab | R | | 3 | | | 2021-second semester 2020- second semester 2022- second semester | 30 |
| MCCE | OOP2206 | Object Oriented Programming II Class | R | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | 30 |
| MCCE | OOP2206 | Object Oriented Programming II Lab | R | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | 30 |
| MCCE | WPR2205 | Web programming II Class | R | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | 30 |
| MCCE | WPR2205 | Web programming II Lab | R | 2 | | | | 2021-second semester 2020- second semester 2022- second semester | 30 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|--------------------------------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | MCP3107 | Mobile Computing | E | | 2 | | | 2021-second semester 2020- second semester 2022- First semester | 30 |
| MCCE | OPS2207 | Operating system | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 30 |
| MCCE | HCI3104 | Human Computer Interaction | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |
| MCCE | DCM3105 | Digital Communications I Class | R | | 3 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |
| MCCE | DCM3105 | Digital Communications I Lab | R | | 3 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|--|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | CMN3106 | Computer Networks I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |
| MCCE | CMN3106 | Computer Networks I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |
| MCCE | EMB3101 | Embedded Systems I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |
| MCCE | EMB3101 | Embedded Systems I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |
| MCCE | WCN3103 | Wireless Communication Network I Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|--|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | WCN3103 | Wireless Communication Network I Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |
| MCCE | FMA3102 | Fundamental of Mobile Applications Class | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |
| MCCE | FMA3102 | Fundamental of Mobile Applications Lab | R | | 2 | | | 2021-first semester 2020-first semester 2022- First semester | 18 |
| MCCE | DBS3207 | Database Systems Class | R | | 2 | | | 2021-second semester 2020- second semester | 18 |
| MCCE | DBS3207 | Database Systems Lab | R | | 2 | | | 2021-second semester 2020- second semester | 18 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|---|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | CMN3206 | Computer Networks II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |
| MCCE | CMN3206 | Computer Networks II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |
| MCCE | EMB3201 | Embedded Systems II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |
| MCCE | EMB3201 | Embedded Systems II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |
| MCCE | WCN3203 | Wireless Communication Network II Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|---------------------------------------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | WCN3203 | Wireless Communication Network II Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |
| MCCE | MAD3202 | Mobile Applications Design Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |
| MCCE | MAD3202 | Mobile Applications Design Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |
| MCCE | AWP3204 | Antenna & Wave Propagation Class | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |
| MCCE | AWP3204 | Antenna & Wave Propagation Lab | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|---|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | DSP3205 | Digital Signal Processing | R | | 2 | | | 2021-second semester 2020- second semester 2022- second semester | 18 |
| MCCE | NWS4106 | Network Security | R | | 2 | | | 2021-first semester 2022-first semester | 16 |
| MCCE | MMS3207 | Multimedia Systems | R | | 2 | | | 2022- second semester | |
| MCCE | DBS3208 | Elective Topic II (Information Theory and Coding) | R | | 2 | | | 2022- second semester | |
| MCCE | PMT4103 | Project Management I Class | R | | 2 | | | 2021-first semester 2022- first semester | 16 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|--|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | PMT4103 | Project Management I Lab | R | | 2 | | | 2021-first semester 2022- first semester | 16 |
| MCCE | MCM4102 | Mobile Communications I Class | R | | 2 | | | 2021-first semester 2022- first semester | 16 |
| MCCE | MCM4102 | Mobile Communications I Lab | R | | 2 | | | 2021-first semester 2022- first semester | 16 |
| MCCE | CNA4104 | Computer Networks Administration Class | R | | 2 | | | 2021-first semester 2022- first semester | 16 |
| MCCE | CNA4104 | Computer Networks Administration Lab | R | | 2 | | | 2021-first semester 2022- first semester | 16 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|---------------------------------------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | MAD4105 | Mobile Applications Development Class | R | | 3 | | | 2021-first semester 2022-first semester | 16 |
| MCCE | MAD4105 | Mobile Applications Development Lab | R | | 2 | | | 2021-first semester 2022-first semester | 16 |
| MCCE | GPJ4101 | Graduation Project I (Theory) | R | | 1 | | | 2021-first semester 2022-first semester | 16 |
| MCCE | GPJ4101 | Graduation Project I (Practical) | R | | 2 | | | 2021-first semester 2022-first semester | 16 |
| MCCE | IOT4206 | Internet of Things | R | | 2 | | | 2021-second semester 2022- second semester | 16 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|-------|---------|------------------------------------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | OFC4204 | Optical Fiber Communications Class | R | | 2 | | | 2021-second semester 2022- second semester | 16 |
| MCCE | OFC4204 | Optical Fiber Communications Lab | R | | 2 | | | 2021-second semester 2022- second semester | 16 |
| MCCE | PMT4203 | Project Management II Class | R | | 2 | | | 2021- second semester 2022- second semester | 16 |
| MCCE | PMT4203 | Project Management II Lab | R | | 2 | | | 2021- second semester 2022- second semester | 16 |
| MCCE | PRJ4201 | Graduation Project II (Theory) | R | | 1 | | | 2021-second semester 2022- second semester | 16 |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|---------------------------------|---------|-----------------------------------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (✓) | General Education | Other | | |
| MCCE | PRJ4201 | Graduation Project II (Practical) | R | | 2 | | | 2021- second semester 2022- second semester | 16 |
| MCCE | MCM4202 | Mobile Communications I Class | R | | 2 | | | 2021-first semester 2022- second semester | 16 |
| MCCE | MCM4202 | Mobile Communications I Lab | R | | 2 | | | 2021-first semester 2022- second semester | 16 |
| MCCE | SCP4205 | Soft Computing | R | | 2 | | | 2021- second semester 2022- second semester | 16 |
| TOTALS BASIC-LEVEL REQUIREMENTS | | | | | | | - | - | - |

| Dept. | Code | Title | Course Type | Subject Area (Credit Hours) | | | | Last Two Terms the Course was Offered: Year and Semester | Maximum Section Enrollment for the Last Two Terms the Course was Offered |
|--|------|-------|-------------|-----------------------------|--|-------------------|-------|--|--|
| | | | | Math & Basic Sciences | Engineering Topics. Check if Contains Significant Design (√) | General Education | Other | | |
| OVERALL TOTAL CREDIT HOURS FOR COMPLETION OF THE PROGRAM | | | | | | | | | |
| PERCENT OF TOTAL | | | | | | | | | |

| Curriculum Skill Chart | | | | | | | | | | | | | | | | | |
|--|----|----|----|-----------------|----|----|----------------|----|----|----|-----------------------------|----|----|----|--------------------------------|-------------|----------|
| Learning outcomes required from the program | | | | | | | | | | | | | | | | | |
| Scientific and transferable skills related to employability and personal development | | | | Thinking skills | | | Special skills | | | | Knowledge and understanding | | | | Course Name | Course Code | The year |
| د4 | د3 | د2 | د1 | ج3 | ج2 | ج1 | ب4 | ب3 | ب2 | ب1 | أ4 | أ3 | أ2 | أ1 | | | |
| | | | | ✓ | ✓ | ✓ | | | | | ✓ | | | ✓ | Mathematics I | MAT1101 | 1\1 |
| | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | | ✓ | Digital Systems Design I | DSD1102 | 1\1 |
| | | ✓ | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | | ✓ | Electrical Circuits Analysis I | ECA1103 | 1\1 |
| ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Programming Fundamentals I | PRL1104 | 1\1 |
| ✓ | | | | | ✓ | | | | | | | | | | English Language I | ENL1105 | 1\1 |
| | ✓ | | | | | ✓ | | | ✓ | | ✓ | ✓ | | | Engineering Drawing | EDR1106 | 1\1 |
| | ✓ | ✓ | | | ✓ | | | | | | | | | | Human Rights | HRS1107 | 1\1 |
| ✓ | | | | | ✓ | | | | | | | | | | Arabic Language | ARL1108 | 1\1 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----------------|-----|
| | | | | ✓ | ✓ | ✓ | | | | | ✓ | | | ✓ | Mathematics II | MAT1201 | 1\2 |
| | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | | ✓ | Digital System Design II | DSD1202 | 1\2 |
| | | ✓ | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | | ✓ | Electrical Circuits Analysis II | ECA1203 | 1\2 |
| ✓ | ✓ | ✓ | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Programming Fundamentals II | PRL1204 | 1\2 |
| ✓ | ✓ | | | | ✓ | | | | | | | | | | English Language II | ENL1205 | 1\2 |
| | | | | ✓ | ✓ | ✓ | | ✓ | | ✓ | | | | ✓ | Mathematics for Computing | MAC1206 | 1\2 |
| | ✓ | | | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | | | ✓ | Computer Architecture | CMA1207 | 1\2 |
| | | ✓ | | | ✓ | | | | | | | | | | Freedom and Democracy | ARL1208 | 1\2 |

Curriculum Skill Chart

| Learning outcomes required from the program | | | | | | | | | | | | | | | | | |
|--|----|----|----|-----------------|----|----|----------------|----|----|----|-----------------------------|----|----|----|-------------------------------|-------------|----------|
| Scientific and transferable skills related to employability and personal development | | | | Thinking skills | | | Special skills | | | | Knowledge and understanding | | | | Course Name | Course Code | The year |
| د4 | د3 | د2 | د1 | ج3 | ج2 | ج1 | ب4 | ب3 | ب2 | ب1 | ا4 | ا3 | ا2 | ا1 | | | |
| | | ✓ | | ✓ | ✓ | ✓ | | | | | ✓ | | | ✓ | Engineering Mathematics I | EMA2101 | 1\2 |
| | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | | ✓ | Electronics I | ELE2102 | 1\2 |
| | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | | ✓ | Communications I | COM2103 | 1\2 |
| ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | Microprocessors I | MPS2104 | 1\2 |
| ✓ | | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Web Programming I | WPR2105 | 1\2 |
| ✓ | | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Object Oriented Programming I | OOP2106 | 1\2 |
| | | | | | ✓ | ✓ | | | | ✓ | | | | ✓ | Electromagnetic Fields | EMF2107 | 1\2 |
| | | ✓ | | ✓ | ✓ | ✓ | | | | ✓ | | | | ✓ | Statistics and Probability | STP2108 | 1\2 |
| 1\2 | | | | | | | | | | | | | | | | | |
| | | ✓ | | ✓ | ✓ | ✓ | | | | | ✓ | | | ✓ | Engineering Mathematics II | EMA2201 | 2/2 |
| | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | | ✓ | Electronics II | ELE2202 | 2/2 |
| | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | | ✓ | Communications II | COM2203 | 2/2 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|------------|
| ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | Microprocessors II | MPS2204 | 2/2 |
| ✓ | | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Web Programming II | WPR2205 | 2/2 |
| ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Object Oriented Programming II | OOP2206 | 2/2 |
| | | | | | ✓ | ✓ | | | | ✓ | ✓ | | ✓ | ✓ | Operating Systems | OPS2207 | 2/2 |
| | | ✓ | | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | Mobile Computing | MCP2208 | 2/2 |
| | | | | | | | | | | | | | | | | | |

Curriculum Skill Chart

| Learning outcomes required from the program | | | | | | | | | | | | | | | | | |
|--|----|----|----|-----------------|----|----|----------------|----|----|----|-----------------------------|----|----|----|------------------------------------|-------------|----------|
| Scientific and transferable skills related to employability and personal development | | | | Thinking skills | | | Special skills | | | | Knowledge and understanding | | | | Course Name | Course Code | The year |
| د4 | د3 | د2 | د1 | ج3 | ج2 | ج1 | ب4 | ب3 | ب2 | ب1 | أ4 | أ3 | أ2 | أ1 | | | |
| | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Embedded Systems I | EMB3101 | 1\3 |
| ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Mobile Applications Development I | MAD3102 | 1\3 |
| ✓ | | | | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Wireless Communications Networks I | WCN3103 | 1\3 |
| | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | ✓ | ✓ | Human-Computer Interaction * | HCI3104 | 1\3 |
| | | ✓ | | | ✓ | ✓ | | | | | ✓ | | | ✓ | Digital Communications | DCM3105 | 1\3 |
| ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | Computer Networks | CMN3106 | 1\3 |
| | ✓ | ✓ | | | ✓ | ✓ | | ✓ | | ✓ | ✓ | | ✓ | ✓ | Multimedia Systems | MMS3107 | 1\3 |
| 1\3 | | | | | | | | | | | | | | | | | |
| ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Embedded Systems II | EMB3201 | 2\3 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----------------|------------|
| | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Mobile Applications Development II | MAD3202 | 2/3 |
| ✓ | | ✓ | | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Wireless Communications Networks II | WCN3203 | 2/3 |
| | ✓ | | | | ✓ | ✓ | | ✓ | | | ✓ | | | ✓ | Antennas and Wave Propagation | AWP3204 | 2/3 |
| ✓ | ✓ | ✓ | | | ✓ | ✓ | | | | | ✓ | | | ✓ | Digital Signal Processing | DSP3205 | 2/3 |
| | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | | ✓ | Computer Networks Protocols | CNP3206 | 2/3 |
| ✓ | | | | | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | Database Systems | DBS3207 | 2/3 |
| | | | | | | | | | | | | | | | | | |

Curriculum Skill Chart

| Learning outcomes required from the program | | | | | | | | | | | | | | | | | |
|--|----|----|----|-----------------|----|----|----------------|----|----|----|-----------------------------|----|----|----|----------------------------------|-------------|----------|
| Scientific and transferable skills related to employability and personal development | | | | Thinking skills | | | Special skills | | | | Knowledge and understanding | | | | Course Name | Course Code | The year |
| د4 | د3 | د2 | د1 | ج3 | ج2 | ج1 | ب4 | ب3 | ب2 | ب1 | أ4 | أ3 | أ2 | أ1 | | | |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Project I | PRJ4101 | 1/4 |
| | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | Mobile Communications I | MCM4102 | 1/4 |
| ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Project Management I | PMT4103 | 1/4 |
| | ✓ | | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Computer Networks Administration | CNA4104 | 1/4 |
| | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | Information Theory and Coding * | ITC4105 | 1/4 |
| ✓ | | | | ✓ | ✓ | ✓ | | | | ✓ | ✓ | | ✓ | ✓ | Networks Security * | NWS4106 | 1/4 |
| | | | | | | | | | | | | | | | | | |
| | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Project II | PRJ4201 | 2/4 |
| ✓ | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | Mobile Communications II | MCM4202 | 2/4 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------------------------------|----------------|------------|
| | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Project Management II | PMT4203 | 2/4 |
| ✓ | | | | | ✓ | ✓ | | | | ✓ | ✓ | | ✓ | ✓ | Optical Fiber Communications * | OFC4204 | 2/4 |
| ✓ | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | | ✓ | ✓ | Soft Computing * | SCP4205 | 2/4 |
| | ✓ | | | | ✓ | ✓ | | | | ✓ | ✓ | | ✓ | ✓ | Internet of Things * | IOT4206 | 2/4 |
| | | | | | | | | | | | | | | | | | |

7: FACULTY

7.1 Faculty Qualifications

Faculty qualification is shown in Table.

Faculty information and members of the department.

| رقم الموبايل | محا فضلة التولد | تاريخ التولد | تاريخ اول تأبين | المهام: يذكر كلمة تدريسي في حالة عدم انتمائك الى شعبة او يذكر عضو في الشعبة الفلانية او رئيس الشعبة الفلانية | عنوان الاطروحة او الرسالة (لاخر شهادة مترف بها داخل المؤسسة): البكالوريوس يكتب لا يوجد | تخصصك الدقيق حسب ما مثبت بالقسم الذي كنت او ما زلت تامل به | اسم القسم الذي نلت منه الشهادة العليا (المترف بها داخل المؤسسة): البكالوريوس يكتب لا يوجد | اسم القسم الذي تخرجت منه في البكالوريوس | البريد الالكتروني الرسمي | اللقب الأمي | اخر شهادة مترف بها داخل المؤسسة | اسم التدريسي باللغة الاربية لا لقب علمي | ت |
|-----------------|-----------------------|-----------------|-----------------------|--|--|--|--|---|--------------------------------------|----------------|--|--|---|
| 0770587642 3 | بغداد | 5/1/199 1 | 2/7/202 3 | تدريسي | Ear and tongue multi biometric identification system using conventional neural network | معالجة الصور الرقمية | قسم علوم الحاسبات | قسم علوم الحاسبات | saba.ayad@uoitc.edu.iq | مدرس | دكتوراه | Saba Ayad Tuama | 1 |
| 0770065494 9 | بغداد | 1/6/198 9 | 3/16/20 23 | تدريسي | Design and Analysis Notched Ultra_Wideband Antenna to Avoid Undesired Bands for wireless Applications | الاكترونيك والاتصالات | قسم الكهرباء | قسم الكهرباء | ansam.qasim@uoitc.edu.iq | مدرس مساعد | ماجستري | Ansam Qasim Kamil | 2 |
| 0773510003 0 | بغداد | 1/28/19 85 | 9/2/201 9 | تدريسي | Different Facial Recognition Techniques in Transform Domains | هندسة الاتصالات/معا لحة اشارة رقمية | الهندسة الكهربائية وهندسة الحاسبات | الهندسة الكهربائية | taif.alobaidi@uoitc.edu.iq | مدرس | دكتوراه | Taif Alobaidi | 3 |
| 0771839579 2 | بغداد | 4/27/19 91 | 3/16/20 23 | عضوا في شعبة الدراسات والخطيط | speech enhancement and speaker identification hybrid approach using mel- frequency cepstral coefficients and convolutional neural network | ذكاء اصطناعي | هندسة الاتصالات | هندسة الاكترونيك والاتصالات | aya.hasan@uoitc.edu.iq | مدرس مساعد | ماجستري | Aya Hasan Abdulqader | 4 |
| 0770936618 0 | بغداد | 4/24/19 83 | 12/11/2 011 | تدريسي | Decoy state quantum key distribution system | ماجستير هندسة اتصالات | معهد الليزر للدراسات العليا/جامعة بغداد | هندسة الككترونيك واتصالات/ج امعة بغداد | sura.adel@uoitc.com | مدرس مساعد | ماجستري | Sura Adel Abbas | 5 |
| 0770061691 0 | بغداد | 2/13/19 71 | 9/13/20 02 | تدريسي | Design of Neural Network Controller for Fuel Cell System Based on Particle Swarm Optimization Algorithms | ميكانيك/ذكاء اصطناعي | هندسة الميكاترونكس | هندسة ميكانيك | ali.alrubaye@uoitc.edu.iq | مدرس مساعد | ماجستري | Ali Mohammed Elaibi | 6 |
| 0772317899 9 | بغداد | 9/12/19 74 | 2/10/20 02 | تدريسي | High quality 60 GHz Radio over fiber systems | دكتوراه هندسة اتصالات | كلية هندسة الاتصالات والحاسبات | هندسة الككترونيك واتصالات / | dr.nael.al_shareefi@uoitc.edu.i q | استاذ مساعد | دكتوراه | Nael A.Al- shareefi | 7 |

| | | | | | | الجامعة التكنولوجية | قسم/ الاتصالات/جا معة برليس /ماليزيا | | | | | | | |
|----|--|---------------------------|---------------|---|-------------------------------|--|---|------------------------------------|--|--|----------------|----------------|-------|-----------------|
| 8 | مها خليل ابراهيم | Maha Khalil Ibrahim | ماجستري ر | مدرس | maha.ibrahim@uoitc.edu.iq | علوم الحاسيات | علوم الحاسيات | تكنولوجيا المعلومات | Recognition of the Arabic Vowel Phonemes using Vector Quantization Technique | تدريسي | 10/9/19 94 | 6/20/19 71 | بغداد | 0790156473 6 |
| 9 | ياسين ناصر جرن | Yaseen Naser Jurn | دكتوراه | مدرس | yaseen.naser@uoitc.edu.iq | الهندسة الكهربائية والالكترونية | هندسة الاتصالات والحاسيات | هندسة الاتصالات | Modelling of Carbon Nanotubes with Different Structures for Millimetre wavelength Antennas | تدريسي | 10/1/19 90 | 7/1/197 2 | بغداد | 0772266298 9 |
| 10 | يقين صباح مزعل | Yaqeen Sabah Mezaal | دكتوراه | استاذ مساعد | Yaqeen.mezaal@uoitc.edu.iq | هندسة كهربائية والكترونية | هندسة الكترونيك واتصالات | هندسة اتصالات لاسلكية | NEW DESIGNS OF MICROWAVE FRACTAL RESONATORS FOR MODERN WIRELESS APPLICATIONS | مسؤول شعبة الشؤون العلمية | 3/16/20 23 | 6/20/19 85 | بغداد | 0751988325 8 |
| 11 | عبدالله سنان احمد | Abdullah S. Ahmed | دكتوراه | مدرس | Abdullah.sinan@uoitc.edu.iq | الهندسة المدينة | الهندسة المدنية | الانشاءات | Behavior of Reactive Powder Concrete Deep Beams | رئيس شعبة الصيانة | 2/19/20 23 | 12/17/1 983 | بغداد | 0770586655 6 |
| 12 | نغم علي حسين | Nagham Ali Hussen | دكتوراه | مدرس | nagham.ali@uoitc.edu.iq | قسم الرياضيات | كلية العلوم/قسم الرياضيات | نظرية التقريب الدالي | U_Best Approximation of Unbounded Functions in L[a,b] | تدريسي | 12/26/2 002 | 3/20/19 80 | بغداد | 0781818361 0 |
| 13 | سالي عماد محمد | sally Emad Mohammed | بكالور يوس | معيد مختبر بالنسبة لللكالور يوس | sally.emad@uoitc.edu.iq | هندسة الكهرباء والالكترونيك | لا يوجد | هندسة الاتصالات | لا يوجد | مسؤول شعبة المكتبة في الكلية / مسؤوله مختبر lab7 &lab3 | 2/17/20 16 | 10/1/19 85 | بغداد | 0771098047 4 |
| 14 | مصطفي عبدالله سعيد | Mustafa A. Saeed | ماجستري ر | مدرس مساعد | mustafa_alsheikh@uoitc.edu.iq | قسم هندسة الكهربائية و الالكترونية | قسم هندسة الكهربائية و الالكترونية | هندسة الاكترونيك و الاتصالات | Implementation of FIR Filter Using Different FPGA Design Flows | تدريسي | 12/19/2 016 | 7/31/19 88 | بغداد | 0781815603 2 |
| 15 | مؤيد عبد الرضا صاح ب يونس | Mouayad A. Sahib | دكتوراه | استاذ | mouayad.sahib@uoitc.edu.iq | الهندسة الكهربائية | الهندسة الكهربائية | هندسة السيطرة و الامتة | Real-Time Nonlinear Filtered- x LMS Algorithm for Active Noise Control | عميد الكلية | 9/10/20 03 | 6/12/19 76 | بغداد | 0771861667 1 |
| 16 | زهراء زهير عباس | Zahraa zuhair Abbas | بكالور يوس | معيد مختبر بالنسبة | zahraa.zuhair@uoitc.ed.iq | هندسة حاسبات | لا يوجد | هندسة تقنيات الحاسبات | لا يوجد | مسؤوله مختبر الثامن | 9/23/20 12 | 7/20/19 89 | بغداد | 0780480557 1 |

| | | | | | | | | | | | | | | |
|--------|---------------------------------------|--------------------------------------|---------------|---|--------------------------------------|--|--|---|--|--|----------------|----------------|--------|--------------------|
| | | | | لليكالور يوس | | | | | | | | | | |
| 1 7 | ناظر ابراهيم عيد الخالق | Nadhir Ibrahim ABDULKHA LEQ | دكتوراه | استاذ مساعد | nadhir.abdulkhaleq@uoitc.edu.i q | هندسة الكهرباء | قسم هندسة الالكترونيك والاتصالات | هندسة الالكترونيك والاتصالات | DESIGN OF HIGH PERFORMANCE LOW LATENCY RATELESS CODES | معاون العميد للشؤون الادارية | 11/29/1 984 | 6/7/196 6 | بغداد | 0771131143 3 |
| 1 8 | فرايس ايداد عيد الرحم ن | Firas Ayad Abdulahma n | ماجستري | مدرس مساعد | firas.ayad@uoitc.edu.iq | قسم الفيزياء | قسم الفيزياء | فيزياء | DESIGN OF UNIPOTENTIAL ELECTROSTATIC LENSES USING SCHISKE'S AND INVERS SCHISKE'S MODELS | عضو في شعبة الشؤون العلمية | 3/19/20 23 | 12/27/1 995 | بغداد | +964770090 2638 |
| 1 9 | جعفر عذاب عكود | Jaafar A. Aldhaibani | دكتوراه | استاذ مساعد | dr.jaafaraldhaibani@uoitc.edu.i q | هندسة كهربية والكترونية | كلية الهندسة للاتصالات والحاسبات | هندسة الاتصالات | Coverage enhancement of long tetm Evaluation - Advanced using Relay Node | رئيس قسم هندسة الاتصالات والحوسبة المتنقلة | 10/6/19 90 | 8/10/19 72 | بغداد | 7818221806 |
| 2 0 | اسراء عيد الأمير رسن جاسم | Israa Abdulameer Resen | ماجستري | مدرس مساعد | israa.resen@uoitc.edu.iq | علوم الرياضيات وتطبيقات الحاسوب | علوم الرياضيات وتطبيقات الحاسوب | علوم الرياضيات وتطبيقات الحاسوب | Generating Normal Varieties by Monte Carlo Methods for Estimating the Cumulative Distribution Function and Parameters | تدريسي | 3/16/20 23 | 4/29/19 82 | البصرة | 0771139415 0 |
| 2 1 | محمد خضير عباس | Mohammed Khudhair Abbas | ماجستري | مدرس مساعد | mohammed.abbas@uoitc.edu.i qp | هندسة المعلومات | هندسة المعلومات | هندسة حاسبات | Building a Reliable Protocol for Electronic Commerce Transactions | تدريسي | 6/18/20 08 | 6/19/19 82 | بغداد | 0772264400 0 |
| 2 2 | علا عادل قاسم فرحان | Ola Adel Qasim Farhan | دكتوراه | مدرس | ola.adel@uoitc.edu.iq | قسم الهندسة المدنية | قسم الهندسة المدنية | الانشاءات | BEHAVIOR OF REINFORCED REACTIVE POWDER CONCRETE SLABS WITH OPENINGS | مقرر قسم هندسة الاتصالات والحوسبة المتنقلة | 2/7/202 3 | 2/12/19 83 | بغداد | 0790116677 6 |
| 2 3 | عبير هاشم محمد | Abeer hasham | بكالور يوس | معيد مختبر بالنسبة لليكالور يوس | abeer.hashim@uoitc.edu.iq | قسم هندسة تقنيات حاسبات | لا يوجد | قسم هندسة تقنيات حاسبات | لا يوجد | شعبه ضمان الجوده | 1/4/200 9 | 3/26/19 88 | بغداد | 7716365780 |
| 2 4 | منير سمير غني | Muneer Sameer Gheni Mansoor | ماجستري | مدرس | muneer.m@uoitc.edu.iq | قسم علوم الرياضيات | قسم برمجة النظم | نظم معلومات اساسية وتقنية المعلومات | Development of a System for Salary Calculation for Establishments in Republic of Iraq | تدريسي | 9/5/200 6 | 6/25/19 79 | بغداد | 0781567212 1 |

| | | | | | | | | | | | | | | |
|----|---------------------|----------------------|-----------|----------------------------|-------------------------------------|---------------------------------------|---|------------------------------------|--|--|------------|------------|-----------|-------------|
| 25 | غادة عماد | Ghada Emad | دكتوراه | مدرس | ghada.emad@uoitc.edu.iq | قسم علوم الحاسوب/ الجامعة التكنولوجية | قسم علوم الحاسوب/ الجامعة التكنولوجية | Network Security/ Bioinformatics | Secure Channel Protocol for UAV using Dynamic DNA Sequence | تدريسي | 12/31/2003 | 6/26/1981 | بغداد | 07846408892 |
| 26 | حنان ثامر عارف | Hanan thamer aref | بكالوريوس | مختبر بالنسبة للبيكالوريوس | hanan.thamer@uotic.edu.iq | علوم حاسبات ونظم معلومات | لا يوجد | نظم معلومات | لا يوجد | قسم هندسة الاتصالات والحوسبة المتكاملة | 10/1/2002 | 5/6/1980 | بغداد | 7519254417 |
| 27 | مصطفى خالد صالح | Mustafa Khalid Saleh | دكتوراه | مدرس | mksalrawi88@gmail.com | كلية الآداب - قسم اللغة الانجليزية | كلية اللغات - قسم اللغة الانجليزية | Linguistics | Clausal Grounding in English and Arabic: A Cognitive Grammar Approach | تدريسي | 4/16/2023 | 10/1/1988 | الانرب ار | 07731721260 |
| 28 | رؤى محمد صعب | rouaa mohammed saab | ماجستير | مدرس مساعد | roro.saab65@yahoo.com | القانون | كلية القانون الجامعة المستنصرية | القانون التجاري | طرق دفع مسؤولية الناقل في عقد نقل البضائع بحرا وفقا لاتفاقية روتردام لعام 2008 | تدريسي | 5/24/2023 | 3/5/1985 | بغداد | 07711123090 |
| 29 | ابراهيم عباس امين | Ibrahim Abbas Ameen | ماجستير | مدرس مساعد | ibrahim.ameen@uoitc.edu.iq | هندسة تقنيات الاجهزة الطبية | Department of Engineering Technologies/ Electrical and Electronic Engineering | هندسة الكهرباء و الالكترون | High Speed Data Acquisition System Based on FPGA | تدريسي + عضو شعبة ضمان الجودة | 11/18/2018 | 9/4/1991 | بغداد | 07721160058 |
| 30 | هبة محمود يوسف صايل | Hiba mahmood yousif | ماجستير | مدرس مساعد | heba.mahmod1201@sc.uobaghdad.edu.iq | علوم الحاسوب | علوم الحاسوب | علوم حاسبات | A Privacy preserving method for genomic data | رئيس شعبة الموارد البشرية | 11/24/2002 | 11/4/1980 | بغداد | 07704541135 |
| 31 | احمد سعد حسين محمد | Ahmed Saad | ماجستير | مدرس مساعد | ahmed.alebrahmy@uoitc.edu.iq | | | هندسة المعلوماتية وتقنية المعلومات | | تدريسي | 28/1/2010 | 23/12/1987 | بغداد | 7832194077 |

7.2 Faculty Workload

توزيع نصاب المواد الدراسية للفصل الثاني للعام الدراسي 2022-2023

| ت | الاسم الثلاثي | المادة / عدد الساعات اسبوعياً | النص اب الرسم ي | التخفي | عدد ساعات المطلوب | عدد ساعات المادة النظر ي | Group | عدد ساعات المادة العملي | Group | القسم | اللقب العلمي | الصفة/سبب التخفيض | نصاب المشارك | عدد ساعات المشروع النظري | عدد ساعات المشروع العملي | النص اب الحالي النظري | النص اب الحالي العملي | المجموع | الاضافية او النقص |
|---|--------------------------------|---|-----------------|--------|-------------------|--------------------------|-------|-------------------------|-------|---------|--------------|---------------------|--------------|--------------------------|--------------------------|-----------------------|-----------------------|---------|-------------------|
| أولاً: كادر قسم هندسة الاتصالات والحوسبة المتنقلة | | | | | | | | | | | | | | | | | | | |
| 1 | ا.د. مؤيد عبد الرضا صاحب | Microprocessors II/2 | 2 | 0 | 2 | 2 | 1 | 2 | 0 | إتصالات | أستاذ | عميد الكلية | 0 | 0 | 0 | 2 | 4 | 6 | 4 |
| | | Microprocessors II Lab. (2 groups)/4 | | | | | 0 | 0 | 2 | | | | | | | | | | |
| 2 | ا.م.د. جعفر عذاب عنكود | Communication II /2 | 4 | -2 | 2 | 2 | 1 | 2 | 0 | إتصالات | أستاذ مساعد | رئيس قسم 50+ سنة | 3 | 1 | 2 | 3 | 6 | 9 | 7 |
| | | Communication II Lab.(2groups/4 | | | | | 0 | 0 | 2 | | | | | | | | | | |
| 3 | ا.م.د. ناظر إبراهيم عبد الخالق | Information Theory and Coding (2 groups)/4 | 4 | 2- | 2 | 2 | 2 | 2 | 0 | إتصالات | أستاذ مساعد | معاون العميد+50 سنة | 3 | 1 | 2 | 5 | 2 | 7 | 5 |
| 4 | ا.م.د. نائل احمد محمد | مجاز مرضيا لمدة 6 اشهر | 0 | 0 | 0 | 0 | 0 | 0 | 0 | إتصالات | أستاذ مساعد | مجاز مرضياً | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | م.د. ياسين ناصر جرن | -Antenna and wave Propagation (2 groups) (/4 | 12 | -2 | 10 | 2 | 2 | 2 | 0 | إتصالات | مدرس | 50 سنة | 3 | 1 | 2 | 5 | 8 | 13 | 3 |
| | | -Antenna and wave Propagation Lab (3groups)/6 | | | | | 0 | 0 | 3 | | | | | | | | | | |
| 6 | | Electronics II /2 | 12 | -2 | 10 | 2 | 1 | 0 | 0 | | | | 3 | 1 | 2 | 3 | 8 | 11 | 1 |

| | | | | | | | | | | | | | | | | | | | |
|---|----|----|----|---|---|-------------|-----------------------------|----------|------------|---|---|---|---|----|----|----|---|----------------------------|--------|
| | | | | | | | لجنة امتحانية فرعية | مدر س | إتصلا ت | 2 | 3 | 0 | 0 | | | | Electronics II Lab. (2groups)/6 | م.د.طيف علي مهدي | |
| 1 | 11 | 6 | 5 | 0 | 0 | 0 | لجنة امتحانية تدقيقية | مدر س | إتصلا ت | 0 | 0 | 1 | 3 | 10 | -2 | 12 | Mathematics II /3 | م.د.نغم علي حسين | 7 |
| | | | | | | | | | | 0 | 0 | 1 | 2 | | | | Project Management II/2 | | |
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | Project Management II Lab. (2 group)/4 | | |
| | | | | | | | | | | 1 | 2 | 0 | 0 | | | | Web Programming II Lab (1 groups)/2 | | |
| 0 | 12 | 2 | 10 | 2 | 2 | 3 + نظري | | مدر س | إتصلا ت | 0 | 0 | 2 | 2 | 12 | 0 | 12 | Multimedia systems (2 class)/4 | م.د.غادة عماد قاسم | 8 |
| | | | | | | | | | | 0 | 0 | 1 | 2 | | | | object oriented programming II/2 | | |
| | | | | | | | | | | 0 | 0 | 1 | 2 | | | | Soft computing/2 | | |
| 0 | 12 | 10 | 2 | 0 | 0 | 0 | | مدر س | إتصلا ت | 0 | 0 | 1 | 2 | 12 | 0 | 12 | Statistics and probability /2 | م.م.منير سمير غني | 9 |
| | | | | | | | | | | 3 | 2 | 0 | 0 | | | | Mobile App.Design. Lab.(3groups /6) | | |
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | object oriented programming II Lab. (2 groups)/4 | | |
| 1 | 11 | 8 | 3 | 2 | 1 | 3 | 50 سنة | مدر س | إتصلا ت | 0 | 0 | 1 | 2 | 10 | -2 | 12 | Web Programming II /2 | م.م.مها خليل ابراهيم | 1 0 |
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | Web Programming II Lab (2 groups)/4 | | |
| | | | | | | | | | | 1 | 2 | 0 | 0 | | | | object oriented programming | | |

| | | | | | | | | | | | | | | | | | | | |
|---|----|----|---|---|---|---------------|----------------------------|-------------------|---------|---|---|---|---|----|----|----|--|---------------------------------|--------|
| | | | | | | | | | | | | | | | | | II Lab. (1 groups)/2 | | |
| 0 | 14 | 8 | 6 | 0 | 1 | 1 ساعة نظري | | مدر س مساعد | إتصالات | 0 | 0 | 1 | 2 | 14 | 0 | 14 | Mobile Communications II/2 | م.م.محمد خضير عباس | 1 1 |
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | Mobile Comm. I Lab. (2 groups)/4 | | |
| | | | | | | | | | | 0 | 0 | 1 | 3 | | | | Engineering Mathematics II /3 | | |
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | Optical fiber Lab. (2 groups)/4 | | |
| 0 | 14 | 12 | 2 | 2 | 2 | 1+3 ساعة نظري | | مدر س مساعد | إتصالات | 2 | 2 | 0 | 0 | 14 | 0 | 14 | object oriented programming II Lab. (2 groups)/4 | م.م.احمد سعد حسين | 1 2 |
| | | | | | | | | | | 3 | 2 | 0 | 0 | | | | Mobile Application design Lab. (2 groups)/4 | | |
| 0 | 12 | 8 | 4 | 2 | 2 | 1+3 ساعة نظري | لجنة امتحانية فرعية | مدر س مساعد | إتصالات | 0 | 0 | 1 | 2 | 12 | -2 | 14 | Electrical Circuits Analysis II /2 | م.م.مصطفى في عبدالله سعيد | 1 3 |
| | | | | | | | | | | 2 | 3 | 0 | 0 | | | | Electrical Circuits Analysis Lab II (2 groups)/6 | | |
| 3 | 15 | 12 | 3 | 2 | 1 | 3 | لجنة امتحانية / تدقيقية | مدر س مساعد | إتصالات | 0 | 0 | 1 | 2 | 12 | -2 | 14 | Logic Circuits II/2 | م.م.سرى عادل عباس | 1 4 |
| | | | | | | | | | | 2 | 3 | 0 | 0 | | | | Logic Circuits II Lab. (2 groups)/6 | | |
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | Communications II Lab (2 groups)/4 | | |
| 3 | 15 | 8 | 7 | 2 | 1 | 3 | لجنة امتحانية فرعية | مدر س مساعد | إتصالات | 0 | 0 | 2 | 2 | 12 | -2 | 14 | Embedded Systems II(2 groups)/4 | م.م.إبراهيم عباس أمين | 1 5 |
| | | | | | | | | | | 3 | 2 | 0 | 0 | | | | Embedded Systems II . (3 Lab. groups)/6 | | |
| | | | | | | | | | | 0 | 0 | 1 | 2 | | | | Internet of Things/2 | | |

| | | | | | | | | | | | | | | | | | | | |
|---|----|----|---|---|---|---|--------------|-------------|---------|---|---|---|---|----|----|----|--|----------------------|----|
| 0 | 12 | 12 | 0 | 0 | 0 | 0 | العمر فوق 50 | مدر س مساعد | اتصلا ت | 3 | 2 | 0 | 0 | 12 | -2 | 14 | Embedded Systems II Lab (3 groups)/6 | م.م. علي محمد العيني | 16 |
| | | | | | | | | | | 3 | 2 | 0 | 0 | | | | Antenna and wave Propagation Lab. (3 groups)/6 | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | | مدر س | إتصلا ت | | | | | 0 | 0 | 0 | اجازة دراسية | تمارا زهير فاضل | 17 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | | مدر س مساعد | اتصلا ت | | | | | 0 | 0 | 0 | مجازة لمدة سنة واحدة | م.م. هديل صادق عبيد | 18 |

توزيع نصاب المواد الدراسية للفصل الثاني للعام الدراسي 2022-2023
المحاضرين الخارجيين

| ت | الاسم الثلاثي | المادة / عدد الساعات اسبوعيا | عدد ساعات المادة النظري | Group | عدد ساعات المادة العملي | Group | القسم | اللقب العلمي | الصفة | نصاب المشاريع | عدد ساعات المشروع النظري | عدد ساعات المشروع العملي | النصاب الحالي النظري | النصاب الحالي العملي | الإضافي |
|----------------------------|-----------------------|---|-------------------------|-------|-------------------------|-------|------------|--------------|-------------|---------------|--------------------------|--------------------------|----------------------|----------------------|---------|
| ثانيا: المحاضرين الخارجيين | | | | | | | | | | | | | | | |
| 1 | م.د. سمير كليبان صالح | Digital Signal processing(2 groups) | 2 | 2 | 0 | 0 | مدرس | اتصالات | محاضر خارجي | 0 | 0 | 0 | 4 | 0 | 4 |
| 2 | م.د. ثناء حسين عبد | Optical communications /2 | 2 | 1 | 0 | 0 | مدرس | اتصالات | محاضر خارجي | 0 | 0 | 0 | 2 | 4 | 6 |
| | | Optical communications lab (2 groups) /4 | 0 | 0 | 2 | 2 | | | | | | | | | |
| 3 | م.م. سعدي محمد سعدي | Computer Networks II /(2 groups) | 2 | 2 | 0 | 0 | مدرس مساعد | اتصالات | محاضر خارجي | 0 | 0 | 0 | 4 | 0 | 4 |
| 4 | م.م. محمد حسن مكطوف | Programming Fundamental II(1 group)/2 | 2 | 1 | 0 | 0 | مدرس مساعد | إتصالات | محاضر خارجي | 6 | 2 | 4 | 4 | 14 | 18 |
| | | Programming Fundamental II Lab.(2 groups)/4 | 0 | 0 | 2 | 2 | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|--|---------------|---------|---|---|---|---|---|------------------------|---|
| | | | | | | | | | 3 | 2 | 0 | 0 | Computer Networks II Lab.(3groups)/6 | | |
| 2 | 0 | 2 | 0 | 0 | 0 | محاضر خارجي/الهيئة العراقية للحاسبات | مدرس | اتصالات | 0 | 0 | 1 | 2 | Operating systems/2 | م.د.شيماء محمد جميل | 5 |
| 6 | 6 | 0 | 0 | 0 | 0 | المعهد المتقني الطبي المنصور/الجامعة التقنية الوسطى | مدرس مساعد | اتصالات | 2 | 3 | 0 | 0 | Electrical Circuits Analysis Lab II (2 groups)/6 | م.م امير كامل حمزة | 6 |

توزيع نصاب المواد الدراسية للفصل الثاني الثاني للعام الدراسي 2022-2023
المحاضرين من رئاسة الجامعة

| ت | الاسم الثلاثي | المادة / عدد الساعات اسبوعيا | عدد ساعات المادة النظري | Group | عدد ساعات المادة العملي | Group | القسم | اللقب العلمي | الصفة | نصاب المشاريع | عدد ساعات المشروع النظري | عدد ساعات المشروع العملي | النصاب الحالي النظري | النصاب الحالي العملي | الإضافي |
|----------------------------|----------------------------|---|----------------------------------|-------|----------------------------------|-------|---------|-----------------|-------------------------------|------------------|-----------------------------------|-----------------------------------|----------------------------|----------------------------|---------|
| ثانيا: المحاضرين الخارجيين | | | | | | | | | | | | | | | |
| 1 | ا.م.د. عمران موسى عمران | Logic Circuits II Lab. (2 groups)/6 | 0 | 0 | 3 | 2 | اتصالات | استاذ مساعد | محاضر من رئاسة الجامعة | 0 | 0 | 0 | 0 | 6 | 6 |
| 2 | م.م. هبة عايد سبهي | Microprocessors II Lab. (2 groups)/4 | 0 | 0 | 2 | 2 | اتصالات | مدرس مساعد | محاضر خارجي / مركز الحاسبة | 0 | 0 | 0 | 0 | 4 | 4 |

توزيع نصاب المواد الدراسية للفصل الثاني الثاني للعام الدراسي 2022-2023
تعيين الدكتوراه

| ت | الاسم الثلاثي | المادة / عدد الساعات اسبوعيا | النص اب الرسم ي | التخفي ض | عدد ساعات المطلوب | عدد ساعات المادة النظر ي | Group | عدد ساعات المادة العملي | Group | القسم | اللقب العلمي | الصفة/سبب التخفيض | نصاب المشار يع | عدد ساعات المشرو ع النظري | عدد ساعات المشرو ع العملي | النص اب الحالي النظري | النص اب الحالي العملي | المجموع | الإضاف ية او النقص |
|--|------------------------|--|-----------------|----------|-------------------|--------------------------|-------|-------------------------|-------|---------|--------------|-------------------|----------------|---------------------------|---------------------------|-----------------------|-----------------------|---------|--------------------|
| أولا: كادر قسم هندسة الاتصالات والحوسبة المتنقلة | | | | | | | | | | | | | | | | | | | |
| 1 | م.د.علا عادل قاسم | Mathematics for Computing/2 | 12 | -4 | 8 | 2 | 1 | 0 | 0 | إتصالات | مدرس | مقررة قسم | 2 (عملي فقط) | 0 | 2 | 4 | 4 | 8 | 0 |
| | | English IV MTCE/2 | | | | 2 | | 0 | | | | | | | | | | | |
| | | Programming Fundamental II Lab.(1 groups)/2 | | | | 0 | | 2 | | | | | | | | | | | |
| 2 | م.د.صبا اباد طعمة | Image processing /2 | 12 | 0 | 12 | 2 | 1 | 0 | 0 | إتصالات | مدرس | | 3 | 1 | 2 | 5 | 8 | 13 | 1 |
| | | Image processing Lab.)(2 group)/4 | | | | 0 | | 2 | | | | | | | | | | | |
| | | Data base/2 | | | | 2 | | 0 | | | | | | | | | | | |
| | | Web Programming II Lab (1 groups)/2 | | | | 0 | | 2 | | | | | | | | | | | |
| 3 | م.د.عبد الله سنان احمد | Computer Fundamental /2 | 12 | 0 | 12 | 2 | 1 | 0 | 0 | إتصالات | مدرس | | 2 (عملي فقط) | 0 | 2 | 4 | 8 | 12 | 0 |
| | | English III MTE/2 | | | | 2 | | 0 | | | | | | | | | | | |
| | | wireless communication network II Lab. (3groups)/6 | | | | 0 | | 2 | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|---|----|----|---|---|---|--------------|--|--------------|---------|---|---|---|---|----|---|----|--|-------------------------|---|
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | Programing Fundamentals (2 II Lab groups)/4 | | |
| 0 | 14 | 14 | 0 | 2 | 0 | 2 (عملي فقط) | | مدر س مساع د | إتصالات | 2 | 2 | 0 | 0 | 14 | 0 | 14 | Programing Fundamentals (2 II Lab groups)/4 | م.م فراس اباد عبدالرحمن | 4 |
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | Communicatio (2 II Lab ns groups)/4 | | |
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | Fiber Optical Communicatio (2 ns Lab groups)/4 | | |
| 0 | 10 | 10 | 0 | 2 | 0 | 2 (عملي فقط) | | استاذ مساع د | إتصالات | 2 | 2 | 0 | 0 | 10 | 0 | 10 | Microprocesso (2 Lab rs II groups)/4 | ا.م.د يقين صباح مزعل | 5 |
| | | | | | | | | | | 2 | 2 | 0 | 0 | | | | Mobile Communicatio (2 ns II Lab groups)/4 | | |

توزيع نصاب المواد الدراسية للفصل الثاني الثاني للعام الدراسي 2022-2023
المحاضرين الخارجيين

| ت | الاسم الثلاثي | التخصص | المادة / عدد الساعات اسبوعيا | عدد ساعات المادة النظري | Group | عدد ساعات المادة العملي | Group | القسم | اللقب العلمي | الصفة | نصاب المشاريع | عدد ساعات المشروع النظري | عدد ساعات المشروع العملي | النصاب الحالي النظري | النصاب الحالي العملي | الإضافي |
|----------------------------|----------------------|-----------------------------------|-------------------------------------|-------------------------|-------|-------------------------|-------|-------|--------------|-------|---------------|--------------------------|--------------------------|----------------------|----------------------|---------|
| ثانيا: المحاضرين الخارجيين | | | | | | | | | | | | | | | | |
| 1 | مهندسة انفال رعد دشر | هندسة الاتصالات والحوسبة المتنقلة | Communications II Lab (2 grroup)/4 | 0 | 0 | 2 | 2 | 2 | اتصالات | مهندس | محاضر خارجي | 0 | 0 | 0 | 4 | 4 |
| | مهندسة رسل لبيب احمد | هندسة الاتصالات | Microprocessors II Lab (2 grroup)/4 | 0 | 0 | 2 | 2 | 2 | اتصالات | مهندس | محاضر خارجي | 0 | 0 | 0 | 4 | 4 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|----------------|-------|---------|---|---|---|---|---|--|-----------------------------------|---|
| | | | | | | | | | | | | | | والحوسبة المتنقلة | | |
| 6 | 6 | 0 | 0 | 0 | 0 | محاضر خارجي | مهندس | اتصالات | 2 | 3 | 0 | 0 | Electronics II Lab (2 grpoup)/6 | هندسة الاتصالات والحوسبة المتنقلة | مهندسة هدى مؤيد رشيد | 3 |
| 4 | 4 | 0 | 0 | 0 | 0 | محاضر خارجي | مهندس | اتصالات | 2 | 2 | 0 | 0 | Project Management II Lab (2 grpoup)/4 | هندسة الاتصالات والحوسبة المتنقلة | مهندسة مروة عبدالجواد جيثوم | 4 |

7.3 Faculty Size

The program has an adequate number of faculty members whom professional specialty is in engineering and all related fields. Faculty members follow regulations and policies regarding the interaction with their students. Several members are either already in their MSc. and PhD. course of study or applying to start higher grade in fields required by the program.

Faculty of Engineering / faculty and staff of the Department of Communications Engineering and Mobile Computing.

No. of faculty and staff of the department

| | | |
|---|-------------|----|
| 1 | Ph.D | 12 |
| 2 | M.Sc | 17 |
| 3 | B.Sc | 4 |

| Lecturer name | |
|----------------------|--------------------------|
| 1 | ا.د مؤيد عبدالصاحب رضا |
| 2 | ا.م.د ناظر |
| 3 | ا.م.د. جعفر عذاب عنكود |
| 4 | أ.م.د. نائل أحمد محمد |
| 5 | م.د. ياسين ناصر جرن |
| 6 | م.د. طيف علي مهدي |
| 7 | م.د. نغم علي حسين |
| 8 | م.د. غادة عماد قاسم |
| 9 | م.د. علا عادل قاسم |
| 10 | م.د. صبا اياد طعمة |
| 11 | م.د. عبد الله سنان احمد |
| 12 | م.م. منير سمير غني |
| 13 | م.م. مها خليل أبراهيم |
| 14 | م.م. محمد خضير عباس |
| 15 | م.م. مصطفى عبدالله سعيد |
| 16 | م.م. إبراهيم عباس أمين |
| 17 | م.م. سري عادل عباس |
| 18 | م.م. علي محمد العيبي |
| 19 | م.م. احمد سعد حسين |
| 20 | م.م. هديل صادق |
| 21 | م.م. تمارا زهير |
| 22 | ا.م.د يقين صباح مزعل |
| 23 | م.م. اسراء عبدالامير رسن |
| 24 | م.م. فراس اياد عبدالرحمن |
| 25 | م.م. انسام قاسم كامل |

| | |
|----|----------------------------|
| 26 | م.م. اية حسن عبدالقادر |
| 27 | م.م. رؤى محمد صعب |
| 28 | م.م. هبة يوسف محمود |
| 29 | م.م. مصطفى خالد صالح |
| 30 | مهندس اقدم زهراء زهير عباس |
| 31 | مهندس اقدم سالي عماد محمد |
| 32 | مهندس عبير هاشم محمد |
| 33 | مهندسة حنان ثامر عارف |

7.4 Professional Development

During the year of review, no faculty member starts a new academic program. All faculty members published research papers in different scientific journals and conferences.

Faculty are actively involved in professional development, including attending such activities as professional workshops, Celebration of Women in Computing, the University Teaching and Learning Conference, the Consortium for Computing Sciences in College, ACM conferences, and IEEE conferences.

7.5 Authority and Responsibility of Faculty

The faculty members are key to the definition and revision of Program Educational Objectives and Student Outcomes, as well as in the achievement of those outcomes.

During the year of review, few faculty members proposed modifications in classes. Program has a dedicated committee, called Committee of Syllabi Development, which is responsible of collecting proposals and suggest appropriate actions.

Faculty members have the discretion to modify and evaluate courses based on discussions among Computer Science faculty members.

However, new courses, substantive changes to existing courses, and changes to major requirements need approval from both the department and the College Undergraduate Curriculum, Admissions, and Standards Committee. This committee brings the approved changes forward for a vote by the College. These approvals are then reviewed/signed by the Dean and sent to the Provost. Ultimately, the Provost,

representing Academic Affairs, approves or disapproves the changes. Changes involving the core curriculum areas or substantive changes to programs must be sent to the University Curriculum Committee for approval before going to the Provost.

Table: Faculty Qualifications
Communications and Mobile Computing Engineering

| Faculty Member Name | Highest Degree Earned, Field and Year | Scientific Rank | Type of Academic Appointment ² PS or TS | FT or PT | Years of Experience | | | Professional Registration/ Certification | Level of Activity H, M, or L | | |
|-----------------------------------|---|-----------------|--|----------|---------------------|----------|------------------|--|------------------------------|--------------------------|------------------------------|
| | | | | | Govt./Ind. Practice | Teaching | This Institution | | Professional Organizations | Professional Development | Consulting/ work in industry |
| Mouayad Abdulredha Sahib Al-Saidy | 2009-2012 Ph.D. / Electrical and Electronic Eng./Control & Automation | P | PS | FT | 5 | 15 | 6 | - | H | H | H |
| Jaafar A. Aldhaibani | 2011-2014 Ph.D. / Communication Engineering– Computer and communication Engineering School / University Malaysia Perlis (UniMAP) | AP | PS | FT | 27 | 6 | 6 | - | H | H | H |
| Nadhir Ibrahim ABDULKHALEQ | 2013-2017 PhD. In Electronic and Communication Engineering/ankaya University- Graduate School of Natural and Applied Science-Department of Electronic and Communication Engineering | AP | PS | FT | - | 20 | 6 | - | H | H | H |
| Taif Ali | PhD from University of Central Florida, Department of Electrical and Computer Engineering, Florida, USA, 2014-2018 | L | PS | FT | - | 5 | 4 | - | H | H | H |
| Yaseen Naser Jurn | PhD\communication engineering\ 2017 | L | PS | FT | 31 | 2 | 6 | - | H | H | H |
| Ola Adel Qasim | PhD\Structural Engineering\ College of Engineering/Al-Nahrain Univeristy/2023 | L | PS | FT | | 10 | 0 | - | H | H | H |

| Faculty Member Name | Highest Degree Earned, Field and Year | Scientific Rank | Type of Academic Appointment 2 PS or TS | FT or PT | Years of Experience | | | Professional Registration/ Certification | Level of Activity H, M, or L | | |
|------------------------|--|-------------------|--|----------|---------------------|----------|------------------|---|---------------------------------|--------------------------|---------------------------------|
| | | | | | Govt./Ind. Practice | Teaching | This Institution | | Professional Organizations | Professional Development | Consulting/ work in industry |
| Abdulla Sinan Ahmed | PhD\Structural Engineering\ 2023 | L | PS | FT | | 10 | 0 | - | H | H | H |
| Saba Ayad Tuama | Ph.D/digital image processing | L | PS | FT | | 2 | 0 | - | H | H | H |
| Mustafa Abdullah Saeed | MSc., Electrical & Electronic Engineering, 2015 | AL | PS | FT | - | 4 | 6 | - | H | H | H |
| Nael Ahmed Mohamed | PhD, Communications Engineering, 2014 | Sickness vacation | | | | | | | | | |
| Muneer Samer Ghani | MSc., Basic Information systems and Information Technology, 2015 | L | PS | FT | 10 | 6 | 4 | - | H | H | H |
| Maha Khalil | MSc. , Media Processing, 2003 | L | PS | FT | 14 | 17 | 3 | - | H | H | H |
| Ibrahim Ameen | MSc., Electronics and Communications Engineering, 2017 | AL | PS | FT | - | 5 | 5 | - | H | H | H |
| Hadeel Sadeq | MSc., Cyber Security, 2017 | Study vacation | | | | | | | | | |
| Tamara Zuhair | MSc. Electronics Engineering, 2015 | Study vacation | | | | | | | | | |
| Ghada Emad | MSc., Data mining/ Bioinformatics, 2013 | L | PS | FT | - | 8 | 8 | - | H | H | H |
| Sura Adel | MSc., communication engineering 2011 | AL | PS | FT | 10 | 3 | 2 | - | H | H | H |
| Mohameed Khadeer | MSc., Information Engineering, 2009 | AL | PS | FT | 13 | 8 | 2 | - | H | H | H |

| Faculty Member Name | Highest Degree Earned, Field and Year | Scientific Rank | Type of Academic Appointment 2 PS or TS | FT or PT | Years of Experience | | | Professional Registration/ Certification | Level of Activity H, M, or L | | |
|------------------------|---|-----------------|--|----------|---------------------|----------|------------------|---|---------------------------------|--------------------------|---------------------------------|
| | | | | | Govt./Ind. Practice | Teaching | This Institution | | Professional Organizations | Professional Development | Consulting/ work in industry |
| Naghem Ali | PhD., Mathematics, 2017 | L | PS | FT | 10 | 3 | 2 | - | H | H | M |
| Ansam Qasim Kamil | MSc., Electronics and communications | AL | PS | FT | | | | - | H | H | H |
| Aya Hasan Abdulqader | MSc., artificial intelligence | AL | PS | FT | | | | - | H | H | H |
| Ali Mohammed Elaibi | MSc., Mechanics/AI | AL | PS | FT | | | | - | H | H | H |
| Yaqeen Sabah Mezaal | PhD., Wireless communications engineering | AP | PS | FT | | | | - | H | H | H |
| Firas Ayad Abdulrahman | MSc., physics | AL | PS | FT | | | | - | H | H | H |
| Israa Abdulameer Resen | MSc., Mathematics and computer applications | AL | PS | FT | | | | - | H | H | H |
| Mustafa Khalid Saleh | MSc., Linguistics | AL | PS | FT | | | | - | H | H | H |
| rouaa mohammed saab | MSc., Commercial Law | AL | PS | FT | | | | - | H | H | H |

| Faculty Member Name | Highest Degree Earned, Field and Year | Scientific Rank | Type of Academic Appointment ² PS or TS | FT or PT | Years of Experience | | | Professional Registration/ Certification | Level of Activity H, M, or L | | |
|---------------------|--|-----------------|--|----------|---------------------|----------|------------------|--|------------------------------|--------------------------|------------------------------|
| | | | | | Govt./Ind. Practice | Teaching | This Institution | | Professional Organizations | Professional Development | Consulting/ work in industry |
| Hiba mahmood yousif | MSc., computer Sciences | AL | PS | FT | | | | | H | H | H |
| Ahmed Saad | MSc., Informatics engineering and information technology | AL | PS | FT | | | | | H | H | H |

Faculty Workload

Faculty workload is shown in Table.

Table: Faculty Workload Summary
Communications and Mobile Computing Engineering

| Faculty Member Name | PT or FT | Classes Taught (Course No./ Credit Hrs.) Term and Year | Program Activity Distribution | | | % of Time Devoted to the Program |
|-----------------------------------|----------|--|-------------------------------|-------------------------|--|----------------------------------|
| | | | Teaching | Research or Scholarship | Other | |
| Mouayad Abdulredha Sahib Al-Saidy | FT | Microprocessors II/2 Microprocessors II Lab. (2 groups)/4 | 100% | | Dean of college | 100% |
| Jaafar A. Aldhaibani | FT | Communication II /2 Communication II Lab.(2groups)/4 | 100% | | Head of the department | 100% |
| Nadhir Ibrahim Abdulkhaleq | FT | Information Theory and Coding (2 groups)/4 | 100% | | Dean Assistant for administrative affairs | 100% |
| Taif Ali | FT | Electronics II /2 Electronics II Lab. (2groups)/6 | 100% | | Examination Committee | 100% |
| Ola Adel Qasim | FT | Mathematics for Computing/2 English IV قسم MTCE/2 Programming Fundamental II Lab.(1 groups)/2 | 100% | | Examination Committee & rapporteur of the department | 100% |
| Abdulla Sinan Ahmed | FT | Computer Fundamental /2 English III قسم MTE/2 wireless communication network II Lab. (3groups)/6 | 100% | | Lecturer | 100% |
| Yaseen Naser Jurn | FT | -Antenna and wave Propagation (2 groups) (/4 -Antenna and wave Propagation Lab (3groups)/6 | 100% | | Lecturer | 100% |
| Saba Ayad Tuama | FT | Image processing /2 Image processing Lab.)(2 group)/4 | 100% | | Lecturer | |

| Faculty Member Name | PT or FT | Classes Taught (Course No./ Credit Hrs.) Term and Year | Program Activity Distribution | | | % of Time Devoted to the Program |
|------------------------|----------|---|-------------------------------|-------------------------|-----------------------|----------------------------------|
| | | | Teaching | Research or Scholarship | Other | |
| | | Data base/2 Web Programming II Lab (1 groups)/2 | | | | |
| Mustafa Abdullah Saeed | FT | Electrical Circuits Analysis II /2 Electrical Circuits Analysis Lab II (2 groups)/6 | 100% | | Examination Committee | 100% |
| Nael Ahmed Mohamed | FT | Sickness vacation | 100% | | Lecturer | 100% |
| Muneer Samer Ghani | FT | Statistics and probability /2 Mobile App.Design. Lab.(3groups /6 object oriented programming II Lab. (2 groups)/4 | 100% | | Lecturer | 100% |
| Maha Khalil | FT | Web Programming II /2 Web Programming II Lab (2 groups)/4 object oriented programming II Lab. (1 groups)/2 | 100% | | Lecturer | 100% |
| Ibrahim Ameen | FT | Embedded Systems II(2 groups)/4 Embedded Systems II . (3 Lab. groups)/6 Internet of Things/2 | 100% | | Examination Committee | 100% |
| Hadeel Sadeq | FT | Study Vacation | 100% | | Study vacation | 100% |
| Tamara Zuhair | FT | Study Vacation | 100% | | Study vacation | 0% |
| Ghada Emad | PT | Multimedia systems (2 class)/4 object oriented programming II/2 Soft computing/2 | 100% | | Lecturer | 100% |
| Sura Adel | FT | Logic Circuits II/2 Logic Circuits II Lab. (2 groups)/6 | 100% | | Lecturer | 100% |

| Faculty Member Name | PT or FT | Classes Taught (Course No./ Credit Hrs.) Term and Year | Program Activity Distribution | | | % of Time Devoted to the Program |
|------------------------|----------|--|-------------------------------|-------------------------|----------|----------------------------------|
| | | | Teaching | Research or Scholarship | Other | |
| | | Communications II Lab (2 groups)/4 | | | | |
| Mohameed Khadeer | FT | Mobile Communications II/2 Mobile Comm. I Lab. (2 groups)/4 Engineering Mathematics II /3 Optical fiber Lab. (2 groups)/4 | 100% | | Lecturer | 100% |
| Naghem Ali | FT | Mathematics II /3 Project Management II/2 Project Management II Lab. (2 group)/4 Web Programming II Lab (1 groups)/2 | 100% | | Lecturer | 100% |
| Ansam Qasim Kamil | FT | Electrical Circuits Analysis II Lab (2 groups)/6 Wireless Communication Networks II Lab (3 groups)/6 | 100% | | Lecturer | 100% |
| Aya Hasan Abdulqader | FT | Electronics II Lab (2 groups)/6 Computer Networks II Lab (3 groups)/6 | 100% | | Lecturer | 100% |
| Ali Mohammed Elaibi | FT | Embedded Systems II Lab (3 groups)/6 Antenna and wave Propagation Lab. (3groups)/6 | 100% | | Lecturer | 100% |
| Yaqeen Sabah Mezaal | FT | Microprocessors II Lab (2 groups)/4 Mobile Communications II Lab (2 groups)/4 | 100% | | Lecturer | 100% |
| Firas Ayad Abdulrahman | FT | Programing Fundamentals II Lab (2 groups)/4 | 100% | | Lecturer | 100% |

| Faculty Member Name | PT or FT | Classes Taught (Course No./ Credit Hrs.) Term and Year | Program Activity Distribution | | | % of Time Devoted to the Program |
|------------------------|----------|--|-------------------------------|-------------------------|----------|----------------------------------|
| | | | Teaching | Research or Scholarship | Other | |
| | | Communications II Lab (2 groups)/4 Optical Fiber Communications Lab (2 groups)/4 | | | | |
| Israa Abdulameer Resen | FT | Web Programming II Lab (2 groups)/4 Project Management II Lab (2 groups)/4 Programing Fundamentals II Lab (2 groups)/4 | 100% | | Lecturer | 100% |
| Mustafa Khalid Saleh | FT | | 100% | | Lecturer | 100% |
| rouaa mohammed saab | FT | | 100% | | Lecturer | 100% |
| Hiba mahmood yousif | FT | | 100% | | Lecturer | 100% |
| Ahmed Saad | FT | object oriented programming II Lab. (2 groups)/4 Mobile Application design Lab. (2 groups)/4 | 100% | | Lecturer | 100% |

8: FACILITIES

8.1 Offices, Classrooms, and Laboratories

Department building, where program is offered, contains 5 offices (head of the department office, department administrative office, and three faculty-member offices). Four classrooms, two of them are shared with another department in the college, with 30 seats in each classroom. COVID-19 pandemic affected the number of in-class lectures during the academic year. Six labs rooms that contain devices and apparatus for eight different labs, namely, Electrical Circuits Analysis, Electronics, Logic Circuits, Computer lab., Microprocessors lab., Antenna and Wave Propagation lab., Embedded Systems lab., 4G-LTE lab., and Mobile Applications Design lab.

The Department of mobile communication and computing engineering in Engineering College in Al-Mansour region. It consist of one building with 3 floors.

- The first floor includes the office of the head of the department with the rapporteur and secretaries. With a large conference hall.
- The second floor includes laboratories, classrooms and teachers' rooms.
- The third floor includes laboratories, classrooms and teachers' rooms.
- Recently, multiple classrooms have been updated.
- Each faculty member has sheared office equipped with a personal computer, printer, and desk drawer, office desk.
- The Department of mobile communication and computing engineering has Rapporteur's office and secretary. The office (which physically adjoins the department chair's office) contains one printer/copiers.
- The first floor houses the examination committee.
- There are bathrooms for women and men on each floor.
- Almost all mobile communication and computing engineering classes are extremely convenient for faculty and students as they are predominantly taught in classrooms and laboratories. These classrooms contain personal computers, white boards, and projection systems, which are easily connected to a laptop. The software on these systems is identical to the software available in the labs.

Software used by computer science classrooms is Balsamiq, Dr. Java, Dreamweaver, Eclipse, Java, jGrasp, gcc/g++, Linux (Ubuntu), Microsoft Visio, Oracle VM Virtual Box, XCode, and Wireshark. A complete list of the hardware and software used in the program is available in Appendix C. Additionally, Computer Science students also work with phidgets in CSCI 1302 and tablets in the Mobile Applications course. Students may also check out iPads from the library for class use as well.

The Computer Science students have the access they need to the computer classrooms and labs to achieve our PEOs.

8.2 Computing Resources

Three computer labs., one shared with another program, are equipped with the up-to-date laptops. All necessary software is installed on those laptops. Software packages include: MATLAB, 8086 Emulator, Packet Tracer, JAVA, C++, Web Programming software, IDE for embedded systems, WATS2002 (Antenna software), MULTISIM, and Mobile Applications Developing software. Program offers off-campus student housing for students who reside outside Baghdad governorate.

8.3 Guidance

Students are given instructions about how to use pieces of equipment in labs. during the first in-lab lecture. Due to COVID-19 pandemic, all of these instructions were given through online labs. during the academic year of 2020-2021. Instructions are also available in labs. in the form of wall posters. Students are instructed not to operate any electrical/electronic apparatus without prior approval form the lab instructor to avoid and hazardous situations.

8.4 Maintenance and Facilities Upgrades

Facilities are maintained and upgraded regularly by the department staff through official channel which includes requests submitted by the faculty member responsible for the lab material and/or lab instructor to the head of the department.

8.5 Library Services

The department has a special committee that established the department's library, where the department has a real and an electronic library that includes the most important books provided by the department through the college, lecturer, and students, and also includes annual output projects, where the department keeps a copy of it so that other students can benefit from it in later stages

College of Engineering, in which the program is offered, include a library. Due to COVID-19 pandemic and since all materials are available through online communications, students have not been utilizing library services as much.

8.6 Overall Comments on Facilities

- Mobile communication and computing engineering department is committed to assisting all students in providing for their own safety and security.
- Laboratories of mobile communication and computing engineering department are locked after-hours, and faculty must submit student names to Public Safety for approved after-hours access. The annual security and fire safety compliance document is available in a PDF document on the Public Safety website at www.gcsu.edu/publicsafety/.
- This document and website contain information regarding campus security and personal safety, including topics such as crime prevention, fire safety, university police/law enforcement authority, crime reporting policies, disciplinary procedures, and other matters of importance related to security and safety on campus.
- Beginning in March 2020, everything was moved online to finish the spring semester due to the Covid-19 pandemic.
- Mobile communication and computing engineering department took the following precautions to provide a safe and healthy learning environment for its students, faculty, and staff. The following actions were consistent with guidelines along with directives from the University System:

- mobile communication and computing engineering department required masks to be worn in all indoor facilities as well as outdoor campus areas where social distancing was not possible.
- Mobile communication and computing engineering department modified face-to-face learning environment required wearing of CDC-approved face coverings and social-distancing in assigning seats.
- All classrooms and labs were evaluated and arranged to adhere to social distancing guidelines.
- Traffic flows in/out of classroom were modified to promote social distancing and reduce people density.
- Students who were in close contact with Covid-19 positive individuals or who experienced symptoms themselves were required to contact Student Health services to receive guidance on actions to take and when they could return to the classroom.
- After the end of the Covid epidemic, working hours returned to normal, as before the epidemic, as working hours returned to attendance, and all teachers and students were committed to working hours

البنى التحتية للقسم

القاعات الدراسية

- قاعة 2 اتصالات
- قاعة 4 اتصالات
- قاعة 6 اتصالات

المختبرات

- مختبر الدوائر المنطقية والالكترونيات Lab 2
- مختبر الحاسبات Lab 3
- مختبر الاتصالات والمعالجات Lab 6

- مختبر الانظمة المضمنة Lab 7
- مختبر الهوائيات والاتصالات وتطبيقات الهاتف Lab 8

اعداد الطلاب

| المرحلة الاولى | المرحلة الثانية | المرحلة الثالثة | المرحلة الرابعة | |
|----------------|-----------------|-----------------|-----------------|----------|
| 19 | 25 | 59 | 22 | الصباحي |
| 4 | 6 | 03 | 03 | المسائي |
| 0 | 0 | 03 | 0 | المؤجلين |
| 23 | 31 | 65 | 25 | الكلية |

المختبرات: عدد 5

| ت | المختبر | الاستيعاب |
|---|---------|-----------|
| 1 | Lab 2 | 15 |
| 2 | Lab 3 | 15 |
| 3 | Lab 6 | 15 |
| 4 | Lab 7 | 15 |
| 5 | Lab 8 | 15 |

عدد القاعات: 3

| | |
|---|--------|
| 1 | قاعة 2 |
| 2 | قاعة 4 |
| 3 | قاعة 6 |

اشغال القاعات والمختبرات

| اليوم | قاعة 2 | قاعة 4 | قاعة 6 | Lab 2 | Lab 3 | Lab 6 | Lab 7 | Lab 8 | القاعة الرئيسية |
|-------|------------|------------|--------|-------|------------|------------|------------|-------|-----------------|
| الاحد | 8:30-10:30 | 8:30-10:30 | | | 8:30-10:30 | 8:30-10:30 | 8:30-10:30 | | |

| | | | | | | | | | |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------|
| | | 10:30- 12:30 | 10:30- 12:30 | 10:30- 12:30 | | | 10:30- 12:30 | 10:30- 12:30 | |
| | | 12:30- 14:30 | 12:30- 14:30 | 12:30- 14:30 | | | | 12:30- 14:30 | |
| 8:30- 10:30 | | | 8:30- 10:30 | 8:30- 10:30 | | | 10:30- 12:30 | 8:30- 10:30 | الاثنين |
| 10:30- 12:30 | 10:30- 12:30 | | 10:30- 12:30 | 10:30- 12:30 | | | 10:30- 12:30 | | |
| 12:30- 14:30 | 12:30- 14:30 | | 12:30- 14:30 | 12:30- 14:30 | | | | | |
| 8:30- 10:30 | | | | 8:30- 10:30 | 8:30- 10:30 | | 8:30- 10:30 | 8:30- 10:30 | الثلاثاء |
| 10:30- 12:30 | | | 10:30- 12:30 | 10:30- 12:30 | 10:30- 12:30 | | | 10:30- 12:30 | |
| 12:30- 14:30 | | | 12:30- 14:30 | 12:30- 14:30 | 12:30- 14:30 | | | 12:30- 14:30 | |
| | 8:30- 10:30 | | | 8:30- 10:30 | | 8:30- 10:30 | 8:30- 10:30 | 8:30- 10:30 | الأربعاء |
| | 10:30- 12:30 | | | 10:30- 12:30 | | 10:30- 12:30 | 10:30- 12:30 | 10:30- 12:30 | |
| | 12:30- 14:30 | | | 12:30- 14:30 | | | | | |
| 8:30- 10:30 | | | 8:30- 11:30 | | | 8:30- 10:30 | 8:30- 10:30 | 8:30- 10:30 | الخميس |
| 10:30- 12:30 | 10:30- 12:30 | 10:30- 12:30 | 11:30- 13:30 | | | 11:30- 13:30 | | | |
| | 12:30- 14:30 | 12:30- 14:30 | | | | | | | |

استمارة ملخص المشروع



جامعة تكنولوجيا المعلومات والاتصالات
كلية الهندسة
قسم هندسة الاتصالات والحوسبة المتنقلة
((استمارة توثيق مشاريع التخرج))

| | |
|------------------|---------------|
| | عنوان المشروع |
| | إمام الدراسي |
| | اسماء الطلاب |
| | مشرف المشروع |
| | القسم |
| ((ملخص المشروع)) | |

توزيع لجان مناقشة مشاريع التخرج لطلبة المرحلة الرابعة للعام الدراسي 2022/2023

| اسم مشروع التخرج | اسم المشرف | اسماء الطلبة المشاركين | اسماء لجنة المناقشة |
|---|---------------------------------|--|--|
| Design and implementation of a Secure Tracking system for monitoring Fuel trucks using IOT Technology | ا.م.د. جعفر عذاب عنكود | 1. مخلد قصي شاكر 2. محمد قيصر عبود 3. طه علي حسين | م.د.ياسين ناصر جرن م.منير سمير غني |
| An early warning protection system for electrical power towers a gains terror attacks | ا.م. د. ناظر ابراهيم عبد الخالق | 1. زينة ابراهيم شكر 2. سارة نافع عبدالخالق 3. هديل جمال محمد | ا.م.د.جعفر عذاب عنكود م.منير سمير غني |
| Mobile Application for Multi-Language Translator Using Flutter | ا.م.د. محمد ماهر رشيد | 1. عبد الرحمن احمد جاسم 2. احمد مظهر حبيب 3. صفا حسن حسين | م.د.طيف علي مهدي م.د.غادة عماد قاسم |
| Design and Implementation of Smart-Drone for Monitoring the Distribution and excesses on the irrigation water | م.د. ياسين ناصر جرن | 1. زهراء جواد كاظم 2. نبأ علي جواد 3. شمس شاكر محمود | م.د. طيف علي مهدي م.د.غادة عماد قاسم م.م.محمد خضير عباس |
| Design and Implementation of Smart Wireless Network for Electrical Power Load Balance | م.د.طيف مهدي علي | 1. زهراء أكرم فاضل 2. ميقات احمد عبد الزهره 3. بنين احمد جمعان | ا.م.د.ناظر عبد الخالق ابراهيم م.م.مصطفى عبد الله سعيد |
| Design and Implementation Robotic Arm Controlled by AI & IOT technologies | م.م ابراهيم عباس امين | 1. داليا كريم فاضل 2. علاء الدين محمد سامي 3. علي عادل خضير | ا.م.د.جعفر عذاب عنكود م.م.سرى عادل عباس |
| Automatic Collision Avoidance System in Autonomous Mobile Robot Using Ultrasonic, IR, and Radar Techniques | م.م. مصطفى عبدالله سعيد | 1. تقى حيدر عبد محمد 2. زينب هاشم رشيد 3. آسيا ظافر فتاح | ا.م.د.محمد ماهر رشيد م.م.مها خليل ابراهيم م.م.علي محمد العبيبي |

| | | | | |
|---|---|--------------------------|--|---|
| 8 | Design and Implementation of a social media website | م.م. مها خليل ابراهيم | 1. حيدرا هزير عبد الحسن 2. ضرغام محمد شيحان | ا.م.د.محمد ماهر رشيد م.م. مصطفى عبدالله سعيد |
| 9 | Implementation of non-contact thermometer (infrared thermometer) using Arduino | م.م. سري عادل عباس | 1. حوراء عماد عمران 2. مريم علاء حسين | م.د.ياسين ناصر جرن م.م. ابراهيم عباس امين |

جدول مناقشة مشاريع التخرج للعام الدراسي 2022-2023

| ت | اسم المشرف | عنوان المشروع | أسماء الطلبة | لجنة المناقشة | وقت ومكان المناقشة |
|---|-----------------------------------|---|--|--|----------------------------------|
| 1 | ا.م.د. جعفر عذاب عنكود | Design and implementation of a Secure Tracking system for monitoring Fuel trucks using IOT Technology | مخلد قصي شاكر محمد قيصر عبود طه علي حسين | م.د.ياسين ناصر جرن م.منير سمير غني | 2023/5/24 9:30 قاعة (2) |
| 2 | ا.م.د. ناظر ابراهيم عبد الخالق | An early warning protection system for electrical power towers a gains terror attacks | زينه ابراهيم شكر سارة نافع عبدالخالق هديل جمال محمد | ا.م.د.جعفر عذاب عنكود م.منير سمير غني | 2023/5/24 9:00 قاعة رئيسية |
| 3 | م.د. صبا اياد طعمة | Mobile Application for Multi-Language Translator Using Flutter | عبد الرحمن احمد جاسم احمد مظهر حبيب صفا حسن حسين | م.د.طيف علي مهدي م.د.غادة عماد قاسم | 2023/5/24 9:00 قاعة (4) |
| 4 | م.د. ياسين ناصر جرن | Design and Implementation of Smart-Drone for Monitoring the Distribution and excesses on the irrigation water | زهراء جواد كاظم نبا علي جواد شمس شاكر محمود | م.د. طيف علي مهدي م.د. غادة عماد قاسم | 2023/5/24 9:30 قاعة (4) |
| 5 | م.د.طيف مهدي علي | Design and Implementation of Smart Wireless Network for Electrical Power Load Balance | زهراء أكرم فاضل ميقات احمد عبد الزهره بنين احمد جمعان | ا.م.د.ناظر عبد الخالق م.م.مصطفى عبد الله سعيد | 2023/5/24 9:00 قاعة (1) |
| 6 | م.م. ابراهيم عباس امين | Design and implementation a robotic arm and controlling by AI and IoT Technology | داليا كريم فاضل علاء الدين محمد سامي علي عادل خضير | ا.م.د.جعفر عذاب عنكود م.م.سري عادل عباس | 2023/5/24 9:30 قاعة رئيسية |
| 7 | م.م. مصطفى عبدالله سعيد | Automatic Collision Avoidance System in Autonomous Mobile Robot Using Ultrasonic, IR, and Radar Techniques | تقي حيدر عبد محمد زينب هاشم رشيد آسيا ظافر فتاح | م.د. صبا اياد طعمة م.م.مها خليل ابراهيم | 2023/5/24 9:00 قاعة (3) |

| | | | | | |
|-------------------------------|---|---|--|---------------------|---|
| | م.م. علي محمد العبيبي | | | | |
| 9:30 قاعة (3) | م.د. صبا اياذ طعمة م.م. مصطفى عبدالله سعيد | حيدر هزبر عبد الحسن ضرغام محمد شبحان | Design and Implementation of a social media website | م. مها خليل ابراهيم | 8 |
| 2023/5/24 9:00 قاعة (2) | م.د. ياسين ناصر جرن م.م. ابراهيم عباس امين | حوراء عماد عمران مريم علاء حسين | Implementation of non-contact thermometer (infrared thermometer) using Arduino | م.م. سري عادل عباس | 9 |

جرد محتويات القاعات

| المحتويات | الطابق | مكتب | سبورة | داتا شو | سبورة ذكية | عارضة | شاشة | كراسي تدريسي متحرك | كراسي تدريسي ثابت | كراسي مختبر ثابتة |
|-----------|--------|------|-------|---------|------------|-------|------|--------------------|-------------------|-------------------|
| قاعة 2 | طابق 2 | 1 | 1 | 1 | | 1 | | | 1 | 37 |
| قاعة 4 | طابق 1 | 1 | 1 | 1 | | 1 | | | 1 | 27 |
| قاعة 6 | طابق 3 | | 1 | 1 | | | | | | 35 |
| Lab 2 | طابق 1 | 1 | 1 | | | | 1 | 1 | | 19 |
| Lab 3 | طابق 1 | 1 | 1 | | | | 1 | | 1 | 26 |
| Lab 6 | طابق 2 | 1 | 1 | 1 | 1 | | | | 1 | 21 |
| Lab 7 | طابق 2 | | 1 | 1 | | 1 | | | | 20 |
| Lab 8 | طابق 2 | | 1 | | | | 1 | | | 22 |

9-INSTITUTIONAL SUPPORT

9.1 Leadership

The head of the Mobile Communications and Computing Engineering department is an Assistant Professor with a PhD. degree in Communications.

The Department of Mobile Communications and Computing Engineering includes the faculty of different majors (communication Engineering-computer science-Civil engineering-mathematics-physics-electrical engineering-law-English...etc..). The faculty members oversee the many programs, but the entire department including the department chair must approve changes to curriculum and objectives.

This departmental approval assures the faculty can articulate the proposed changes before the changes go to the college's Undergraduate Curriculum Committee and College faculty for approval.

The Chair of the Department of Mobile Communications and Computing Engineering oversees the faculty members, and the Dean of the college of engineering supervises the college and reports to the Provost.

9.2 Program Budget and Financial Support

The college budget comes from the allocations that the university receives from the Ministry of Higher Education and Scientific Research. Each university has annual allocations.

The hiring process is handled by the Human Resources department in the university, and the department decides to accept a new candidate for a faculty member position based on an interview with the applicant after reviewing his/her qualifications.

The program offers an equal and an adequate opportunity to each faculty member to pursue a degree or to having a leave.

9.3 Staffing

The program has adequate technical and administrative staff members to support faculty and students. Technical members are part of the laboratory staff which help instructors during face-to-face lab lectures.

9.4 Faculty Hiring and Retention

As a program in a university in the public sector, all fund-related matters are handled through the proper channel to ensure the adequacy of lab. apparatus and other teaching related materials.

9.5 Support of Faculty Professional Development

Applications for new class and lab materials are handed directly to the head of the department by faculty members and/or by lab instructors. When approved, these applications go through proper channels to start purchasing steps and all materials are supplied accordingly.

The university does not have a property that is granted to professors to perform their research. Rather, each teacher supervises and spends on his projects, research and conferences from his own money.

The department annually updates the devices and equipment according to the development that obtains the study materials, but within the permitted college budget.

Graduation projects for students in the fourth stage are under the supervision of the department professors. Students are not granted a grant to spend on their projects. Rather, each student spends on his graduation project from his own money, as there is no special budget by the ministry, college, or department that allows granting scholarships to students.

Attesting Signature

By signing below, I attest to the following:

That ***Communications and Mobile Computing Engineering*** has conducted an honest assessment of compliance and has provided a complete and accurate disclosure of timely information regarding compliance with the *National Criteria for Accrediting Engineering Programs* to include the General Criteria and any applicable Program Criteria, and the *National Council Accreditation Policies and Procedures*.

Done by

Dr. Ola Adel Qasim

Signature

Date

Head of Department

Assist. Prof. Dr. Jaafar A. Aldhaibni.

Signature

Date

Dean's

Prof. Dr. Mouayad Abdulredha Sahib

Signature

Date