



**Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department**

Academic Program and Course Description Guide

2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills, so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate

description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

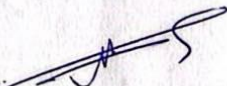
Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

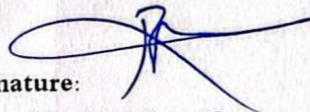
Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

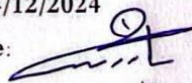
Academic Program Description Form

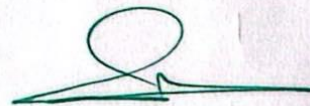
University Name: ..Ninevah University.....
Faculty/Institute: ..Electronics Engineering College.....
Scientific Department: ..Communication Engineering.....
Academic or Professional Program Name: ..BSc in Communication
Engineering ..
Final Certificate Name: BSc in Communication engineering....
Academic System: Bologna for 1st and 2nd classes and Annual for
3rd and 4th classes
Description Preparation Date: 24/12 / 2024
File Completion Date: 24/12/2024

Signature: 
Head of Department Name:
Dr. Mahmod A. Alzubaidy
Date: 26/12/2024

Signature: 
Scientific Associate Name:..
Bilal A. Jebur
Date: 28-12-2024

The file is checked by:
Department of Quality Assurance and University Performance
Director of the Quality Assurance and University Performance
Department: Yaser Mohammed Hussien
Date: 24/12/2024

Signature: 


Approval of the Dean
28/12/2024

1. Program Vision

The vision of the Communication Engineering Department is to become a nationally and internationally leading institution in the communication engineering. The department seeks to keep pace with developments and achieve distinction in the field of communications engineering, and to prepare adequate and necessary staff to meet the growing need in the labor market. The vision of the Department of Communications Engineering is:

1. To become a leading institution nationally and internationally in communications engineering.
2. The department seeks to keep pace with developments and achieve excellence in the field of communications engineering.
3. Adequate and necessary staff preparation.
4. Striving to meet the growing need for work.

2. Program Mission

1. **Education:** Providing specialized engineering educational programs with precise specialization for undergraduate and postgraduate studies, and offering a distinguished educational environment recognized for equipping its graduates with fundamental engineering education and good professional experience, enabling them to effectively contribute to their community and advance their profession.
2. **Research:** Establishing a high-level research environment where professors, researchers, and students can conduct research in fundamental, applied, and exploratory engineering fields, and disseminate and apply available and new knowledge to serve the community, region, and engage with the world.
3. **Leadership:** Developing leadership capabilities for members and students, instilling self-learning, insight, and deduction abilities so that those with talent in the profession can effectively lead the community.
4. **Community Service:** Interacting with the community and engaging in the development of the country's industry and engineering institutions, leading to social and economic development through consultations, continuous education, and commitment to solving industrial problems by conducting research to provide solutions.

3. Program Objectives

1. Graduating competent engineers specializing in communications engineering with the ability to distinguish, analyze, and find suitable solutions for practical problems, as well as adeptly handling modern technologies.
2. Graduating engineers who can interact and collaborate with specialized individuals, decision-makers, and others in a professional manner within the field of work and in the practice of their profession.
3. Preparing graduates qualified to engage in postgraduate programs both locally and internationally and work in research centers.
4. Conducting applied scientific research in the fields of communications engineering to address industrial and service-related issues within the community.
5. Actively participating in the advancement and progress of society through organizing seminars, conferences, and continuous education in the field and specialties of communications engineering and adopting a continuous improvement approach for all activities and events.

4. Program Accreditation

No program accreditation has awarded yet. However, quality assurance committee in the department has been working on fulfilling the requirements of awarding program accreditation for the academic year 2024-2025.

5. Other external influences

The program is committed to the regulations of the Ministry of Higher Education and Scientific Research.

6. Program Structure				
Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	5	16	9%	Basic
College Requirements	14	68	35%	Basic
Department Requirements	22	108	56%	Basic
Summer Training	1	0	0%	Basic
Other	--	--	--	--

* This can include notes whether the course is basic or optional.

7. Program Description				
Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
1/1	NVEECM311	Computer Science & Programming	4	2
1/1	NVEE215	DC Circuit Analysis	4	2
1/1	NVEE206	Mathematics I	4	0
1/1	NV11	English	2	0
1/1	NVEE217	Digital Techniques	4	1
1/1	NVEE203	Mechanical Engineering Principles	4	0
1/2	NVEECM321	Computer Programming I	3	2
1/2	NVEE216	AC circuit analysis	4	2
1/2	NVEE207	Mathematics II	4	0
1/2	NVEE218	Physics of Electronics	5	0
1/2	NVEE223	Digital Circuits Design	4	1
1/2	NV12	Democracy & Human Rights	2	0
2/1	NVEECM331	Communication transmission Lines	4	1

2/1	NVEE220	Electrostatic Fields	4	0
2/1	NVEE224	Electronic I	3	2
2/1	NVEE208	Engineering Analysis I	4	0
2/1	NVEE210	Signals and systems I	3	2
2/1	NVEECM333	Computer Programming II	3	2
2/2	NVEECM341	Analog Communication	4	1
2/2	NVEE221	Electromagnetic Fields	4	0
2/2	NVEE225	Electronic II	3	1
2/2	NVEE209	Engineering Analysis II	4	0
2/2	NVEE210	Signals and systems II	3	2
2/2	NVEE201	Engineering Drawing	0	3
2/2	NV13	The Crimes of the defunct Baath party	2	0
3	CE3301	Microwave Engineering	4	0
3	CE3302	Electronic Communication	3	0
3	CE3303	Digital Communication	4	0
3	CE3304	Microprocessor	3	0
3	CE3201	Digital Signal Processing	3	0
3	CE3305	Electronic Measurements	3	0
3	CE3306	Control Engineering	3	0
3	CE3307	Laboratory	0	6
4	CE4301	Communication Systems	3	0

4	CE4302	Antennas & Propagation	4	0
4	CE4303	Secure Communication	2	0
4	CE4304	Satellite Communications	3	0
4	CE4305	Optical Communications	3	0
4	CE4306	Data Transmission & Computer Network	3	0
4	CE4201	Engineering Project	1	3
4	CE4307	Laboratory	0	6

8. Expected learning outcomes of the program

Knowledge

- 1- Raising the intellectual level and developing the mental abilities of students through academic subjects to consolidate their engineering personality.
- 2- Raising the scientific and cognitive level of students through basic and auxiliary curricula.
- 3- Developing the engineering leadership personality of students through discussions and scientific activities.
- 4- Informing students of the latest global developments in the field of communications engineering.

Skills

- 1 - Encouraging students to learn and draw conclusions through assignments and discussions.
- 2 - Providing students with practical skills in the field of electrical engineering and communications engineering through laboratories.
- 3 - Providing students with the skill of working on engineering projects through the engineering project.

4 - Acquiring the ability to analyze and solve scientific and engineering problems and innovating methods for solutions.

Ethics

1- Spreading the spirit of tolerance and cooperation among students and with the community and respecting other opinions.

2- Raising the morale of students and instilling a sense of pride in the specialty.

3- Urging students to develop, excel and innovate.

4- Developing artistic, athletic, literary and other skills.

9. Teaching and Learning Strategies

Teaching Strategy

The department has a Teaching strategy organized and monitored by the department's scientific committee and department council. The teaching staff is required to present their educational plan that they will follow during the semester or academic year, which includes the following:

- Presenting the curriculum topics to the students while specifying the class hours that correspond to each subject to be covered during the academic semester. They are committed to applying this plan to cover the course material according to the previously mentioned schedules.
- Specifying the deadlines for homework assignments and ensuring they are organized.
- Setting schedules for surprise quizzes to enable students to regularly follow their studies.
- Establishing dates for final examinations by presenting the academic calendar to the students.
- Providing guidance to students on how their grades will be calculated during the academic semester.
- Making amendments to how the course material is presented based on the

results of previous years' surveys to enhance the curriculum and the performance of both teachers and students.

- Program Delivery Modes is a traditional on-campus lecture/laboratory.

Learning Strategy

It is the duty of the department council and the teaching staff to focus on improving students' learning capabilities by emphasizing the significant role of the teaching staff in this area. Teachers play a crucial role in making the course content and lectures engaging for students, making the learning process easier, faster, and more enjoyable. This is achieved through the following:

- Motivating students and highlighting their self-capabilities.
- Using modern teaching methods and delivering lectures in an engaging manner to capture students' attention, using illustrative graphics and linking them to practical applications that students can understand.
- Involving all students in continuous discussions to keep everyone engaged in the lecture atmosphere.
- Ensuring there is no discrimination between male and female students in various teaching activities.
- Forming mixed-gender work groups in laboratories.

10. Evaluation methods

Techniques for expanding knowledge and comprehension:

- 1- Theoretical lectures.
- 2- Discussion lectures (Tutorial)
- 3- Laboratories
- 4- Student scientific seminars

Techniques for evaluating cognitive abilities:

- 1- Written tests administered on a monthly or quarterly basis
- 2- Quizzes
- 3- Writing scientific reports
- 4- Homework

Techniques for assessing practical skills:

- 1- Graduation projects
- 2- Specialized workshops

11. Faculty						
Faculty Members						
Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Ibrahim Mohammad Alfarha	Computer Eng. Technology	Computer Eng.			✓	
Ikhlas Ahmad Basheer	Mechanical Eng.	Applicable Mechanical Eng. & Production			✓	
Adham Maan Saleh	Communication Eng.	Communication Eng.			✓	
Akram Talal Mohammad	Communication Eng.	Communication Eng.			✓	
Amina Nawfal Ismail	Computer Eng.	Computer Network Eng			✓	
Ameen Ahmad Ameen	Communication Eng.	Communication Eng.			✓	
Anas Khalid Abdullah	Elect & Comm. Eng.	Solid State Eng.			✓	
Dina Riadh Ibrahim	Electronic Eng.	Electronic Eng.			✓	
Rana Raad Shakir	Communication Eng.	Communication Eng.			✓	
Zahraa Khalid Ahmad	Electrical Eng.	Electrical Eng.			✓	
Zahraa Zuhair Yahya	Communication Eng.	Communication Eng.			✓	
Zaid Hatim Thannon	Communication Eng.	Communication Eng.			✓	

Zainab Rami Saleh	Computer Eng.	Digital Signal Processing			✓	
Sura Zeno Thannon	Communication Eng.	Communication Eng.			✓	
Sulaiman Noor Aldin Khalil	Communication Eng.	Communication Eng.			✓	
Sama Mumtaz Mohammad	Education of Science	General Physics			✓	
Shatha Mohammad Ali	Communication Eng.	Communication Eng.			✓	
Shirwan Khairaddin Yaqub	Physics Science	Quantum Gravity			✓	
Safwan Hafeedh Younis	Elect & Comm. Eng.	Elect & Comm. Eng.			✓	
Tariq Adnan Najm	Communication Eng.	Communication Eng.			✓	
Ali Abdulmuhsin Sadoon	Communication Eng.	Communication Eng.			✓	
Ali Othman Mohammad	Elect & Comm. Eng.	Computer Networks Eng.			✓	
Omar Salah Shakir	Computer Eng.	Computer Eng.			✓	
Qusay Hadi Sultan	Communication Eng.	Communication Eng.			✓	
Karam Mudhaffar Younis	Electrn. & Comm. Eng.	Elect Eng.			✓	
Laith Talal Fattah	Elect. & Comm. Eng.	Elect & Comm. Eng.			✓	
Mohammad Ameer Abd	Elect & Comm. Eng.	Computer Network Eng.			✓	
Mohammad Zuhair Mohammad	Communication Eng.	Communication Eng.			✓	
Mohammad Sameer Salim	Communication Eng.	Communication Eng.			✓	

Mohammad Abdulrahman Ahmad	Elect & Comm. Eng.	DSP / Wireless Comm. Eng.			✓	
Mohammad Manaf Hameed	Elect & Comm. Eng.	Computer Network Eng.			✓	
Mahmood Ahmad Mahmood	Elect & Comm. Eng.	Communication Eng.			✓	
Mustafa Basim Jassim	Communication Eng.	Communication Eng.			✓	
Hiba Saad Mahmood	Computer Eng.	Computer Eng.			✓	
Wasan Mamdooh Abdulatif	Elect & Comm. Eng.	Elect & Comm. Eng.			✓	

Professional Development

Mentoring new faculty members

To mentor new faculty members, they are trained through teaching methods courses held at the university, in addition to urging them to attend various seminars, lectures and continuing education courses related to the specialization and the education process.

Professional development of faculty members

The department enables and encourages staff members to pursue their postgraduate studies to gain a higher degree either in the department itself or in other universities with similar specialties. Staff members are also encouraged to apply for post-doctorate research fellowships and abroad training courses. A plan for staff member development was to open Doctorate studies in the department, which was successfully accomplished firstly in the academic year (2024-2025). In addition, and along their career in the department of communications engineering, staff members are continuously encouraged to participate in various courses and events that are held inside and outside the college and aim at raising staff knowledge and teaching skills.

Those include:

- **Continuous Learning through Specialized Workshops and Certifications**

Faculty members are encouraged to engage in advanced workshops and certifications related to emerging trends in communications technology, such as 5G, IoT, and machine learning in communication systems. This helps them stay updated with industry practices and new research methodologies.

- **Research Collaboration and Publication**

Encourage faculty members to collaborate on research projects with both national and international experts. Publishing research in high-impact journals and presenting at conferences not only enhance their academic profile but also foster a culture of innovation within the department.

- **Industry-Academia Linkages and Guest Lectures**

Develop partnerships with industry leaders to host guest lectures and offer faculty exposure to real-world applications of communication systems. Such interaction deepens faculty members' understanding of industry requirements and helps align academic curricula with current technological needs.

12. **Acceptance Criterion**

The applicant for the department must have a scientific branch preparatory certificate, in both its biological and applied sections, and have obtained a grade determined by the Central Admissions Directorate of the Ministry of Higher Education, as well as graduates of industrial preparatory schools and technical institutes within the specialization who are among the top ten, according to what is determined by the Ministry of Higher Education and Scientific Research.

13. **The most important sources of information about the program**

Detailed information about the department's programs is available on the official

University of Nineveh website, as well as the College of Electronic Engineering's website: www.uoninevah.edu.iq. Further details can be accessed in the self-evaluation report and the department's annual guide, which are included in both the university and college guides.

14. Program Development Plan

- **Curriculum Review:** Regularly updating curriculum to incorporate the latest trends in wireless communications, IoT, machine learning for communications and cybersecurity.
- **Industry Collaboration:** Developing partnerships with leading telecom companies for internships, training, and industry-oriented projects.
- **Graduation Projects Developments:** Integrating real-world communication systems design and analysis projects into final year graduation project.

Program Skills Outline

				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Course 1/Year 1	NVEECM311	Computer Science & Programming	Basic		✓	✓	✓		✓	✓	✓			✓	✓
	NVEE215	DC Circuit Analysis	Basic	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓
	NVEE206	Mathmatics I	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓		
	NV11	English	Basic	✓	✓			✓	✓	✓	✓		✓	✓	✓
	NVEE217	Digital Techniques	Basic	✓	✓			✓	✓	✓	✓				✓
	NVEE203	Mechanical Engineering Principles	Basic	✓			✓	✓	✓	✓	✓		✓	✓	
Course 2/Year 1	NVEECM321	Computer Programming I	Basic		✓	✓	✓		✓	✓	✓			✓	✓
	NVEE216	AC circuit analysis	Basic	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓
	NVEE207	Mathematics II	Basic	✓	✓	✓	✓	✓	✓				✓		
	NVEE218	Physics of Electronics	Basic	✓	✓		✓	✓	✓	✓	✓		✓		✓
	NVEE223	Digital Circuits Design	Basic	✓	✓	✓	✓	✓	✓	✓	✓				✓
	NV12	Democracy & Human Rights	Basic						✓	✓	✓		✓	✓	✓
Course 1/Year 2	NVEECM331	Communication transmission Lines	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓

	NVEE220	Electrostatic Fields	Basic	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓
	NVEE224	Electronic I	Basic	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
	NVEE208	Engineering Analysis I	Basic	✓	✓	✓	✓	✓	✓	✓	✓				✓
	NVEE210	Signals and systems I	Basic		✓	✓	✓	✓	✓	✓	✓				✓
	NVEECM333	Computer Programming II	Basic		✓	✓	✓	✓	✓	✓	✓			✓	✓
Course 2/Year 2	NVEECM341	Analog Communication	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	NVEE221	Electromagnetic Fields	Basic	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓
	NVEE225	Electronic II	Basic	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓
	NVEE209	Engineering Analysis II	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	NVEE210	Signals and systems II	Basic		✓	✓	✓	✓	✓	✓	✓				✓
	NVEE201	Engineering Drawing	Basic	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓
	NV13	The Crimes of the defunct Baath party	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
Year 3	CE3301	Microwave Engineering	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	CE3302	Electronic Communication	Basic	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓
	CE3303	Digital Communication	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	CE3304	Microprocessor	Basic	✓	✓			✓	✓	✓	✓		✓		✓
	CE3201	Digital Signal Processing	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
	CE3305	Electronic Measurements	Basic	✓	✓	✓			✓	✓	✓		✓		
	CE3306	Control Engineering	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓

	CE3307	Laboratory	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
Year 4	CE4301	Communication Systems	Basic	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓
	CE4302	Antennas & Propagation	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	CE4303	Secure Communication	Basic	✓		✓	✓		✓	✓	✓		✓		✓
	CE4304	Satellite Communications	Basic	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓
	CE4305	Optical Communications	Basic	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓
	CE4306	Data Transmission & Computer Network	Basic	✓		✓			✓	✓	✓				✓
	CE4201	Engineering Project	Basic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓