Ministry of Higher Education and Scientific Research

Scientific supervision and evaluation device

Department of Quality Assurance and Academic Accreditation

Academic program description form for colleges and institutes

The university:- Nineveh University

College/Electronic Engineering

Scientific department:-Communication Engineering

Date of filling the file: 1/9/2024

Signature

Name of department head:-Ass. Prof. Mahmod Ahmed Mahmod

The date:- 1/9/2024

Signature

Name of Scientific Assistant:- Ass. Prof. Bilal Alaa aL- deen

The date:- **1/9/2024**

Check the file From:
Division of Quality Assurance and University Performance

Name of the director of the Quality Assurance and University Performance Division:-

The signature:

The Date;-

- **Authentication of the Dean**

Academic program description form

Reviewing the performance of higher education institutions

((academicprogram review))

Description of the Academic Program

This academic program description provides a summary of the most important characteristics of the program and the learning outcomes that the student is expected to achieve, demonstrating whether he or she has made the most of the opportunities available. It is accompanied by a description of each course within the program

1- Educational institution	Ninevah University/ College of Electronic Engineering
2- Scientific department/center	Communication Engineering Department
3- Name of the academic program	Communication Engineering
4- Name of the final certificate	BSC of Communication Engineering
5- School system	Annual
6- Accredited accreditation program	Institutional accreditation / ABIT
7- Other external influences	Labor Market
8- Date the description was prepared	
9- Academic Program Objectives: **The academic program of the Department of Communications Engineering aims to prepare specialized engineers in the field of communications engineering, which has witnessed rapid and extensive developments in recent decades in the fields of digital, mobile, optical, satellite, computer communications, etc. The department seeks to provide a solid scientific base for its students in specialized topics in the fields of communications engineering.**	

10- Required learning outcomes and teaching, learning and assessment methods

A- Cognitive objectives : -

A1:- Raising the intellectual level and developing the mental abilities of students through academic subjects to consolidate their engineering personality.

A2:- Raising the scientific and cognitive level of students through basic and auxiliary curricula

A3:- Developing students' leadership engineering personality through discussions and scientific activities

A4:- Informing students about the latest global developments in the field of communications engineering.

B- Skills objectives of the program

B 1. Encouraging students to learn and draw conclusions through assignments and discussions

B2. Providing students with practical skills in the field of electrical engineering and communications engineering through laboratories

B3. Providing students with the skill of working on engineering projects through the engineering projectB4. Using technological tools to analyze financial data.

B4. Acquiring the ability to analyze and solve scientific and engineering problems and innovate methods for solutions

Teaching and learning methods

.Printed and electronic curricula as well as specialized scientific programs and Internet resources

Evaluation methods

Daily, semester and annual exams, as well as through asking questions and discussions during lectures, homework and writing reports .

C- Emotional and value goals

C1. Spreading the spirit of tolerance and cooperation among students and with society and respecting other opinions

C 2. Raising students' morale and instilling pride in their major

C3. Encouraging students to develop, excel and innovate

C4. Developing artistic, sports, literary and other skills .

Teaching and learning methods

Festivals, scientific and recreational trips, celebrations on occasions and visits, and holding competitions and sports, artistic and literary activities.

Evaluation methods

Evaluation committees, awarding prizes, certificates of appreciation and official documents related to the activity in question

D- General and transferable skills (other skills related to employability and personal development).
D1. The skill of adhering to work schedules and completing tasks on time
D2. The skill of programming the completion of tasks, distributing effort over time, drawing a timeline and adhering to it
D3. Skill in dealing with managers, experts, technicians and administrators in the field of work
D4. Providing students with experience in engineering business management through the Industrial Management course.

Teaching and learning methods
Some courses, laboratories, report writing, participation in various external scientific activities, graduation research, and summer training.

Evaluation methods
1- Evaluation committees for various activities
2- Laboratory Managers
3- Summer training evaluation forms prepared by scientific and practical trainers
4- Exams and evaluation forms to be filled out by trainers in summer training

11- Program structure

Level/year	Course or course code	Courses Name	Credit hours	
			Theoretical	Practical
First Year	CE1201	Basics of Electrical Engineering	4	0
	CE1202	Physical Electronics	3	0
	CE1203	Mathematics	4	0
	CE1301	Digital Techniques	4	0
	CE1101	Computer Programming - I	2	2
	CE1204	Engineering Drawing	0	3
	CE1302	Principle of Mechanical Engineering	3	0
	CE1303	Laboratory	0	3
	CE1102	Humanitarian subject	2	0
	CE1103	English Language	2	0

Level/year	Course or course code	Courses Name	Credit hours	
			Theoretical	Practical
Second Year	CE2301	Communication Principles	4	0
	CE2302	Electronics	3	0
	CE2303	Computer Programming - II	3	2
	CE2304	Electromagnetic Fields	4	0
	CE2305	Signals & Systems	2	2
	CE2306	Digital Design	3	0
	CE2201	Engineering Analysis	4	0
	CE2307	Laboratory	0	3
	CE2202	Industrial management	2	0
	CE2101	Democracy and Freedoms	2	0

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Level/year	Course or course code	Courses Name	Credit hours	
			Theoretical	Practical
Third Year	CE3301	Microwave Engineering	4	0
	CE3302	Electronic Communication	3	0
	CE3303	Digital Communication	4	0
	CE3304	Microprocessor	4	0
	CE3201	Digital Signal Processing	3	0
	CE3305	Electronic Instrumentation	3	0
	CE3306	Control Engineering	3	0
	CE3307	Laboratory	0	6

Level/year	Course or course code	Courses Name	Credit hours	
			Theoretical	Practical
Fourth Year	CE4301	Communication Systems	4	0
	CE4302	Antennas & Propagation	4	0
	CE4303	Secure Communication	2	0
	CE4304	Satellite Communications	3	0
	CE4305	Optical Communications	3	0
	CE4306	Data Transmission & Computer Network	3	0
	CE4201	Engineering Project	0	3
	CE4307	Laboratory	0	6

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12- Planning for personal development

13 - Admission criteria (setting regulations related to admission to the college or institute)
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 Acceptance 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 and according to what is determined by the Ministry of Higher Education and Scientific Research.

14 - The most important sources of information about the program
Approved textbooks in international universities, research and electronic publications

Curriculum Skills Chart

				Required learning outcomes of the program															
Year / Level	Course code	Course Name	Essential or optional	Cognitive objectives				Program Skill Objectives				Emotional and value goals				General and transferable skills Other skills related to employability and personal development			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
First Year	CE1201	Basics of Electrical	Basic	V	V	V	V	V	V		V		V	V	V	V			V
	CE1202	Physical Electronics	Basic	V	V		V	V		V			V		V	V	V	V	
	CE1203	Mathematics	Basic	V	V			V	V		V		V	V	V	V			V
	CE1301	Digital Techniques	Basic	V	V			V	V						V	V	V		V
	CE1101	Computer Programming - I	Basic	V	V	V	V				V			V	V		V	V	V
	CE1204	Engineering Drawing	Basic	V	V	V	V			V	V		V	V	V	V			V
	CE1302	Principle of Mechanical Engineering	Basic	V			V	V	V		V	V		V			V	V	V
	CE1303	Laboratory	Basic	V	V	V	V	V			V		V	V			V	V	V
	CE1102	Humanitarian subject	Basic					V	V		V		V	V	V				
	CE1103	English Language	Basic	V	V			V	V	V	V	V		V	V	V			V

Year / Level	Course code	Course Name	Essential or optional	Cognitive objectives				Program Skill Objectives				Emotional and value goals				General and transferable skills Other skills related to employability and personal development			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
Second Year	**CE2301**	**Communication Principles**	**Basic**	V	V	V	V	V	V		V		V	V	V	V	V	V	V
	CE2302	**Electronics**	**Basic**	V	V	V	V	V	V		V			V	V	V			V
	CE2303	**Computer Programming - II**	**Basic**		V	V	V	V		V	V	V		V	V	V	V	V	V
	CE2304	**Electromagnetic Fields**	**Basic**	V	V	V	V				V		V	V	V			V	V
	CE2305	**Signals & Systems**	**Basic**			V	V	V	V		V				V		V	V	V
	CE2306	**Digital Design**	**Basic**	V	V	V	V	V		V	V				V			V	V
	CE2201	**Engineering Analysis**	**Basic**	V	V	V	V	V	V		V	V			V	V	V		V
	CE2307	**Laboratory**	**Basic**	V	V	V	V		V		V				V	V	V	V	V
	CE2202	**Industrial management**	**Basic**										V	V				V	V
	CE2101	**Democracy and Freedoms**	**Basic**										V	V	V	V	V	V	V

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Year / Level	Course code	Course Name	Essential or optional	Cognitive objectives				Program Skill Objectives				Emotional and value goals				General and transferable skills Other skills related to employability and personal development			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
Third Year	**CE3301**	**Microwave**	**Basic**	v	v	v	v	v	v		v		v	v	v	v	v	v	v
	CE3302	**Electronic Communicatio**	**Basic**	v	v	v	v			v	v		v	v	v	v	v	v	v
	CE3303	**Digital Communication**	**Basic**	v	v	v	v	v	v		v	v		v	v	v			v
	CE3304	**Microprocesso r**	**Basic**	v	v			v		v	v	v			v	v	v	v	v
	CE3201	**Digital Signal Processing**	**Basic**	v	v	v	v	v	v		v		v	v		v	v	v	v
	CE3305	**Electronic Instrumentatio**	**Basic**	v	v	v			v		v		v			v	v	v	v
	CE3306	**Control Engineering**	**Basic**	v	v	v	v	v	v		v		v		v	v	v	v	v
	CE3307	**Laboratory**	**Basic**	v	v	v	v	v	v			v	v	v	v	v	v	v	v

Year / Level	Course code	Course Name	Essential or optional	Cognitive objectives				Program Skill Objectives				Emotional and value goals				General and transferable skills Other skills related to employability and personal development			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3	D4
Fourth Year	**CE4301**	**Communication Systems**	**Basic**	V	V	V		V	V		V		V	V	V	V			
	CE4302	**Antennas & Propagation**	**Basic**	V	V	V	V	V		V	V	V		V	V	V	V	V	V
	CE4303	**Secure Communication**	**Basic**	V		V	V		V		V		V		V	V		V	V
	CE4304	**Satellite Communications**	**Basic**	V	V	V	V	V		V			V		V	V	V	V	V
	CE4305	**Optical Communications**	**Basic**	V	V	V		V	V		V		V	V	V		V	V	V
	CE4306	**Data Transmission & Computer Network**	**Basic**	V		V			V		V				V	V		V	V
	CE4201	**Engineering Project**	**Basic**	V	V		V	V	V	V	V	V	V	V	V	V	V	V	V
	CE4307	**Laboratory**	**Basic**	V	V	V	V	V	V		V		V	V	V	V		V	V