



Unit Description Form

Course Description Form

Faculty of Engineering / Department of



Unit Information

Course Information

Unit Title	Digital Electronics		Unit delivery	
Unit Type	fundamental		<input checked="" type="checkbox"/> نظريه <input checked="" type="checkbox"/> حاضر <input checked="" type="checkbox"/> المختبر <input type="checkbox"/> تعليمي <input type="checkbox"/> عملي <input type="checkbox"/> Seminar	
Unit Code	WBM-42-06			
ECTS Credits	8			
SWL (ساعة / SEM)	75			
Unit level	4	Delivery Semester		
Department of Administration	Biomedical	College	Engineering	
Unit Commander	Qaiser Iyad Ahmed	E-mail Address	qayssar.ayad@uowa.edu.iq	
Title of Unit Commander	Assistant Lecturer	Unit Commander Qualifications	Master	
Unit Teacher		E-mail Address		
Peer Reviewer Name	name	E-mail Address	E-mail Address	
Date of accreditation of the Scientific Committee	26/9/2024	Version number	1.0	

Relationship with other units

Relationship with other subjects

Prerequisites Unit	No	Semester	
Common Requirements Unit	No	Semester	

Unit objectives, learning outcomes and how-to contents Course objectives, learning outcomes and instructional contents	
Objectives of the Unit Course Objectives	<p>. Understand basic principles: Understand the principles of digital electronics, such as digital logic, digital circuits, and integrated circuits.1</p> <p>Digital Circuit Design: Digital circuit design using digital logic and integrated circuits.2</p> <p>Digital circuit analysis: analysis of digital circuits to determine their performance and characteristics.3</p> <p>Development of digital systems: Development of digital systems using digital electronics.4.</p>
Unit Learning Outcomes Learning outcomes of the course	<p>Understand the basic principles of digital electronics.1</p> <p>Ability to design and implement digital electronic circuits.2</p> <p>Ability to analyze and correct errors in digital electronic circuits.3.</p>
Indicative Contents Indicative Contents	<p>1. Introduction to Digital Electronics</p> <p style="text-align: right;">Basic principles of digital electronics. 2</p> <p>3. المنطق الرقمي (AND ,OR ,NOT ,NAND ,NOR)</p> <p>4. Logic gates</p> <p>5. Digital core circuits</p>

Learning and Teaching Strategies Learning and Teaching Strategies			
Strategies	<p>Digital logic theory: the study of logic gates and logic circuits.1</p> <p>n Theory of Integrated Circuits: The Study of Digital Integrated Circuits.2</p> <p>3. Digital memory theory: the study of types of digital memory.</p> <p>4. Number Systems Theory: The study of binary and hexagonal systems.</p>		
Student Workload (SWL) The student's academic load is calculated for 15 weeks			
SWL منظم (h / sem) Regular academic load of the student during the semester	40	SWL regulator(h/s) Regular student load per week	4
SWL غير منظم (h / sem) Irregular academic load of the student during the semester	35	Unregulated SWL (h/s) Irregular student academic load per week	4
إجمالي SWL (h / sem) The student's total academic load during the semester			75

Unit Evaluation Course Evaluation

		As	Time/Number	Weight (tags)	Week due	Related learning outcomes
Formative Assessment	Contests		2	10% (10)	5, 10	LO #1 , 2, 10 and 11
	Assignments		2	10% (10)	2, 12	LO #3 , 4, 6 and 7
	Projects / Laboratory.		1	10% (10)	continuous	every
	report		1	10% (10)	13	LO #5 , 8 and 10
Final Assessment	Midterm Exam		2 hr	10% (10)	7	LO #1-7
	Final Exam		2 hours	50% (50)	16	every
			Overall Rating	100% (100 degree)		

Delivery Plan (Weekly Curriculum) Theoretical Weekly Curriculum	
week	Covered Material
Week 1	
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week 8	
Week 9	
Week 10	
Week 11	
Week 12	
Week 13	
Week 14	
Week 15	
Week 16	

Learning and Teaching Resources
Learning and Teaching Resources

	text	Available in the library?
Required texts	Clinical Biochemistry, (8 editions), by Leipencotts	Yes
Recommended texts		Yes
Websites		

Grading chart				
Grading chart				
group	degree	Appreciation	Tags (%)	definition
An-Najah Group (50 - 100)	A - Excellent	privilege	90 - 100	Outstanding Performance
	B - Very Good	Very good	80 - 89	Above average with some errors
	C - Good	Good	70 - 79	Proper work with noticeable errors
	D - Satisfactory	medium	60 - 69	Fair but with significant shortcomings
	E - sufficient	Acceptable	50 - 59	The work meets the minimum standards
Group failure (0 - 49)	FX - Failed	Deposit (in processing)	(45-49)	More work required but credit granted
	F - Failed	Failure	(0-44)	Large amount of work required
<p>Note: Signs that are more than 0.5 decimal places greater than or below the full mark will be rounded higher or lower (for example, a score of 54.5 will be rounded to 55, while a mark of 54.4 will be rounded to 54. The university has a policy of not tolerating "imminent traffic failure", so the only modification to the marks granted by the original mark(s) will be the automatic rounding described above.</p>				