

وصف المقرر لمادة

Module Information معلومات المادة الدراسية			
Module Title	Medical Electronic Systems		Module Delivery
Module Type	Core	☒ Theory ☐ Lecture ☒ Lab ☒ Tutorial ☐ Practical ☐ Seminar	
Module Code	MIET3202		
ECTS Credits	6		
SWL (hr/sem)	150		
Module Level			
Department Administering		College	College of engineering
Module Leader	Medical Electronic Systems	e-mail	ruqia_alaa_ibrahim@hilla-unc.edu.iq
Module Leader's Acad. Title		Module Leader's Qualification	
Module Tutor		e-mail	
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	15/3/2026	Version Number	

Relation with other Modules العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	Introduce the student to electronic circuits, their work and uses in the field of .medicaldevices and the mechanism of building different medical systems Learn about the applications of electronic circuits in the field of medical devices Informing and training students on the latest developments in the field of medical electronics.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	A- Cognitive goals .A1. Electronic circuit analysis .A2. Design simple and complex electronic circuits A3. The ability to give appropriate solutions to the resulting A1- Identify the components of .malfunctions in electronic circuits .basic electronic circuits and medical devices B - the skill objectives of the course . B1 - Familiarize yourself with the electrical sign drawings. B2 - Designing digital medical electronic . electrical sign drawings

	.systems with high efficiency and economic cost B 3 - Providing scientific and practical advice in the field of maintaining medical electronic circuits.
Indicative Contents المحتويات الإرشادية	C- Emotional and value goals C1- The student listens carefully to the teacher's explanation C2 - That the student be acquainted with the impact of electronic systems in C 3- Introducing the student to the components .the field of medical devices .of electronic circuits C4 - Developing curricula and laboratories in line with the labor market.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies		Daily exams, quarterly exams - laboratory reports, annual exams, scientific activities			
Student Workload (SWL) الحمل الدراسي للطالب					
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل		79	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا		5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل		71	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا		5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل		15 0			
Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	(10) %10	10 ,5	LO #1, 2, LO# 10 and 11
	Online Assignments	2	(10) %10	12 ,2	LO # 3, 4, LO# 6, 7
	Projects	1	(6) %6	Continuous	LO# 1-12
	lab	10	(10) %10	Continuous	LO# 1-12
	Report	1	(4) %4	13	LO # 5, 8, 9, 12
Summative assessment	Midterm Exam	hr 3	(10) %10	7	LO # 1-7
	Final Exam	4hr	(50) %50	16	All
Total assessment			100) %100 (Marks)		
Delivery Plan (Weekly Syllabus) المنهاج السبوعي النظري					
		Material Covered			
Week 1		Regulated power supplied .			
Week 2		Monolithic regulators			
Week 3		Additional switching regulator to pologies			
Week 4		Active filters			
Week 5		Butter worth filter practical realization			
Week 6		Band pass filter, band reject filter			
Week 7					
Week 8		.Mid-term exam			
Week 9		Active resonant and band pass filter			
Week 10-13		Active RC band pass filter			
-Week 14		Digital to analogue converters (DAC)			

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
Week 1	.Regulated power supplied
Week 2	Monolithic regulators
Week 3	Additional switching regulator topologies
Weeks 4-5	Active filters
Weeks 6-7	Butter worth filter practical realization
Weeks 8-9	Band pass filter, band reject filter
Week 10	.Mid-term exam
Week 11	Active resonant and band pass filter
Week 12	Active RC band pass filter
Weeks 13-14	Digital to analogue converters (DAC)
Learning and Teaching Resources مصادر التعلم والتدريس	

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50- 100)	A - Excellent	امتياز	100 - 90	Outstanding Performance
	B - Very Good	جيد جدا	89 - 80	Above average with some errors
	C - Good	جيد	79 - 70	Sound work with notable errors
	D - Satisfactory	متوسط	69 - 60	Fair but with major shortcomings
	E - Sufficient	مقبول	59 - 50	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(49-45)	More work required but credit awarded
	F – Fail	راسب	(44-0)	Considerable amount of work required
Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the .automatic rounding outlined above				

د. د. هارون عبد الحافظ
الحمد

عميد الكلية : أ.د. هارون عبد الحافظ شهد

رئيس القسم : أ.د. محمود شاكر نصر

رئيس القسم : أ.د. محمود شاكر نصر

م.م. رقية علاء ابراهيم

اسم التدريسي: م.م. رقية علاء ابراهيم

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