



Republic of Iraq - Ministry of Higher Education and Scientific Research
Al-Farahidi University
Bachelor's degree in Aeronautical Technical Engineering (First cycle)
Four years (Eight semesters) - 240 ECTS credits - 1 ECTS = 25 hr
Program Curriculum (2023 - 2024)

جمهورية العراق - وزارة التعليم العالي والبحث العلمي

جامعة الفراهيدي

بكالوريوس في هندسة تقنيات الطيران (الدورة الأولى)

أربع سنوات (ثمانية فصول دراسية) - 240 وحدة اوروبية - كل وحدة اوروبية = 25 ساعة

المنهاج الدراسي للعام 2023-2024



Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSW L hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)							
UGI	One	1	AFU12011	English for Academic U.		English	1						3	18	32	50	2.00	S	
		2	AFU12012	Computer Principals		English	1		2				3	48	52	100	4.00	B	
		3	AFU12013	single variable calculus		English	3				1		3	63	62	125	5.00	B	
		4	AFU12014	Workshop		English					4		3	63	62	125	5.00	C	
		5	AFU12015	physics		English	3		1		1		3	78	72	150	6.00	B	
		6	AFU12016	CAD Drawing		English			6		2		3	115	85	200	8.00	S	
							Total	8	0	9	4	4	0	18	385	365	750	30.00	
UGI	Two	1	AFU12021	Human Right and Democracy		Arabic	1					3	18	32	50	2.00	B		
		2	AFU12022	Multi-variables calculus		English	3				1		3	63	62	125	5.00	B	
		3	AFU12023	Engineering Materials		English	2						3	33	42	75	3.00	S	
		4	AFU12024	Fundamentals of Thermodynamics		English	3		1		1		3	78	72	150	6.00	S	
		5	AFU12025	Engineering Mechanics-Static		English	5				3		3	123	77	200	8.00	S	*
		6	AFU12026	Fundamentals of Electricity		English	3		1		1		3	78	72	150	6.00	B	
							Total	17	0	2	0	6	0	18	393	357	750	30.00	
UGII	Three	1	AFU12031	Fluid Mechanics -static		English	2		1		1	3	63	62	125	5.00	S		
		2	AFU12032	Fundamentals of Electronics		English	2		1		1	3	63	62	125	5.00	S		
		3	AFU12033	Theory of flight		English	4		2		1	3	108	92	200	8.00	C		
		4	AFU12034	Thermodynamic - ideal Gas		English	2		1		1	3	63	37	100	4.00	S		
		5	AFU12035	Manufacturing Processes		English	2			1		3	48	52	100	4.00	S		
		6	AFU12036	Fundamentals of Engineering Mechanics-Dynamics		English	2				1	3	48	52	100	4.00	S		
							Total	14	0	5	1	5	0	18	393	357	750	30.00	
UGII	Four	1	AFU12041	Fluid Mechanics-Dynamics		English	2		1			3	48	27	75	3.00	S		
		2	AFU12042	CAE Principals		English	1		3			3	63	62	125	5.00	S		
		3	AFU12043	Engineering Mechanics-Applied of Dynamics		English	2				1	3	48	52	100	4.00	S		
		4	AFU12044	Strength of Materials		English	4		1		2	3	108	92	200	8.00	S		
		5	AFU12045	Algebraic equations and Programming python		English	2		3			3	78	72	150	6.00	B		
		6	AFU12046	Thermodynamic - Steam		English	2		1		1	3	63	37	100	4.00	S		
							Total	13	0	9	0	4	0	18	408	342	750	30.00	

Level	Semester	No.	Module Code	Module Name in English	اسم المادة الدراسية	Language	SSWL (hr/w)						Exam hr/sem	SSWL hr/sem	USSW I hr/sem	SWL hr/sem	ECTS	Module Type	Prerequisite Module(s) Code	
							CL (hr/w)	Lect (hr/w)	Lab (hr/w)	Pr (hr/w)	Tut (hr/w)	Semn (hr/w)								
UGII	Five	1	AFU12051	Aerodynamic -Fundamentals		English	2		1				3	48	52	100	4.00	C		
		2	AFU12052	Digital Techniques & Electronic instrument system		English	4		1	1	1		3	108	67	175	7.00	S		
		3	AFU12053	Eng. & Numerical Analyses		English	6				1		3	108	92	200	8.00	B		
		4	AFU12054	Gas Dynamics		English	2			1	1		3	63	37	100	4.00	C		
		5	AFU12055	Aircraft Engines		English	2			1	1		3	63	37	100	4.00	C		
		6	AFU12056	Industrial Engineering		English	2						3	33	42	75	3.00	S		
							English	Total	18	0	2	3	4	0	18	423	327	750	30.00	
UGIII	Six	1	AFU12061	Aerodynamic -Applied		English	2		1			3	48	52	100	4.00	C			
		2	AFU12062	Mechanical Eng. Design		English	5				2		3	108	92	200	8.00	S		
		3	AFU12063	Heat Transfer		English	4		1		1		3	93	57	150	6.00	S		
		4	AFU12064	Gas Turbine Engines		English	2			1	1		3	63	37	100	4.00	C		
		5	AFU12065	Gas Dynamics-Applied		English	2			1	1		3	63	37	100	4.00	C		
		6	AFU12066	Theory of Machines		English	2		1				3	48	52	100	4.00	S		
							English	Total	17	0	3	2	5	0	18	423	327	750	30.00	
UGIV	Seven	1	AFU12071	Aircraft Structure- fundamantals		English	2		1			3	48	27	75	3.00	C			
		2	AFU12072	Aircraft Vibration		English	5		1		1		3	108	92	200	8.00	C		
		3	AFU12073	Airbus A318, A319 Aircraft system & Maintenance		English	1	1			1		3	48	52	100	4.00	C		
		4	AFU12074	Aeronautical legislation & Human Factors		English	1	1					3	33	17	50	2.00	C		
		5	AFU12075	Automatic Control		English	5		1		1		3	108	92	200	8.00	C		
		6	AFU12076	CAM (computer Aided manufacturing)		English	2		2				3	63	62	125	5.00	S		
							English	Total	16	2	5	1	2	0	18	408	342	750	30	
UGIV	Eight	1	AFU12081	Aircraft Design		English	5		1		1	3	108	92	200	8.00	C			
		2	AFU12082	Propulsion Systems		English	3	1		1	1		3	93	82	175	7.00	C		
		3	AFU12083	Aircraft Stability		English	3		1		1		3	78	72	150	6.00	C		
		4	AFU12084	Aircraft Structure- Applied		English	2		1				3	48	27	75	3.00	C		
		5	AFU12085	Airbus A320, A321 Aircraft system & Maintenance		English	1	1			1		3	48	52	100	4.00	C		
		6	AFU12086	Final Project		English				2			3	33	17	50	2.00	C		
							English	Total	14	2	3	4	3	0	18	408	342	750	30	
							Total	117	4	38	15	33	0	144	3241	2759	6000	240.0		Must be 240 ECTS
Note: The student should complete 4 weeks of Summer Internships to fulfill the requirements of the Bachelor's degree																				
Structured SWL (hr/w) type	CL	Class Lecture				Module type	B	Basic learning activities				SWL: Student Workload								
	Lab	Laboratory					C	Core learning activity				SSWL: Structured SWL								
	Pr	Practical Training					S	Support or related learning activity				USSWL: Unstructured SWL								
	Tut	Tutorial					E	Elective learning activity												
	Lect	Online lecture																		

