

SENARAI PENAWARAN KURSUS KEMASUKAN SEMESTER I 2017/2018

PROGRAME: BACHELOR OF SCIENCE WITH HONOURS (APPLIED PHYSICS)

PENAWARAN KURSUS SEMESTER I, 2017/2018				
Sem	Kod	COURSE NAME	COURSE TYPE	Unit Kredit
I	BAA1022	Arabic for Practical@	WU	2
	BAA2022	Arabic for Communicative Purposes@	WU	
	BAA3032	Arabic for Science @	WF	
	BIA1012	General English Proficiency*	WU	2
	BIA2012	English for Communicative Purposes*	WU	
	BIA3012	English for Academic Purposes@	WF	
	UTE1012	Ethnic Relations	WU	2
	C#####	Co-Curriculum	WU	2
	SMS1043	Statistics	WF	3
	AAD1013	Principles & Practices of Da'wah Communication	WF	3
	SFS1012	Experimental Method and Instrumentation	WP	2
	SFS1022	Introductory Mechanics	WP	2
TOTAL				18
II	BAA3032	Arabic for Science @	WF	2
	BAA4022	Bahasa Arab Akademik*	WU	
	BAA5022	Bahasa Arab Profesional*	WU	
	UTT1012	Islamic & Asian Civilizations	WU	2
	BIA2012	English for Communicative Purposes*	WU	2
	BIA3012	English for Academic Purposes@	WF	
	BIS4012	English for Science and Technology @	WU	
	SMS1033	Calculus	WF	3
	SFS1033	Mechanics	WP	3
	SFS1043	Wave and Vibration	WP	3
	SCI1033	Inorganic Physical Chemistry	WP	3
TOTAL				18
	ADA2012	Akidah Islam	WU	2

III	BAA3032	Arabic for Science @	WF	2
	BAA4022	Bahasa Arab Akademik@	WU	
	BAA5022	Bahasa Arab Profesional@	WU	
	BIA3012	English for Academic Purposes@	WF	2
	BIS4012	English for Science and Technology@	WU	
	BIS5012	Bahasa Inggeris untuk Keperluan Penyelidikan@	WU	2
	SSS2022	History and Philosophy Of Science	WF	
	SFG1013	Modern Physics	WP	3
	SFE1013	Electric and Magnet	WP	3
	SFB2013	Introduction to Materials Science	WP	3
			TOTAL	17
IV	ADT2012	Akhlak & Tasawwauif	WU	2
	LBI1012	Fiqh Ibadat dan Munakahat	WU	2
	UTK2012	Creative Thinking & Problem Solving	WU	2
	SFF2013	Optics		3
	SFS2073	Mathematics Physics	WF	3
	SFS2113	Thermodynamics	WP	3
	SFG3013	Quantum Mechanics 1	WP	3
			TOTAL	18
V	MGA1023	Principles of Business Management	WU	3
	UTH3012	Halaqah Studies	WF	2
	SSS3052	Research Methodology	WF	2
	SFE2063	Electronics	WP	3
	SFS2083	Statistical Physics	EP	3
	SFG3033	Solid State Physics	EP	3
	SFG4901	Honor Seminar	EP	1
			TOTAL	17
VI	MGC3012	Entrepreneurship	WF	2
	SFS4982	Thesis I	WP	3

SFG3033	Atomic and Molecules Physics	EP	2
SFS3113	Simulation and Programming	WP	3
	Choose only one		
	• Microelectronics:		
SFE4063	Microelectronics Devices	EP	3
SFE4083	VLSI Design	EP	3
SFE4133	Digital Electronics	EP	3
	• Material Sciences:		
SFB4063	Material Processing	EP	3
SFB4083	Electrical, Magnetic and Optical Properties of Materials	EP	3
SFB4033	Materials Evaluation and Analysis	EP	3
	• Photonics:		
SFF4023	Laser Technology	EP	3
SFF4033	Photonics Devices	EP	3
SFF4043	Optoelectronics and Communication Optics	EP	3
	• Computational Physics:		
SMG2023	Linear Algebra	EP	3
SFC4013	Partial Differential Equations	EP	3
SFC4023	Quantum Mechanics II	EP	3
	• Energy Physics:		
SFT4013	Energy Technologies	EP	3
SFT4023	Energy and Its Usage	EP	3
SFT4043	Nuclear Energy	EP	3
	• Medical Physics:		
SFP4013	Human Anatomy Physiology	EP	3

	SFP4023	Radiation Detection and Dosimetry	EP	3	
	SFP4043	Radiation Biophysics	EP	3	
TOTAL				19	
VII	SFS4984	Thesis II	WP	4	
	SFG4103	Basic Quality Control and Commercialization	EP	3	
	SFG4093	Nuclear Physics	EP	3	
	Choose only one				
		• Microelectronics:			
	SFE4071	Microelectronics Laboratory	EP	1	
	SFE4143	Analogue Electronics	EP	3	
	SFE4153	IC Fabrication and Packaging	EP	3	
		• Material Science:			
	SFB4093	Advance Material	EP	3	
	SFB4051	Material Science Laboratory	EP	1	
	SFB4073	Nanotechnologies	EP	3	
		Photonics:			
	SFF4051	Photonics Laboratory	EP	1	
	SFF4063	Biophotonics	EP	3	
	SFF4073	Optical Metrology	EP	3	
		• Computational Physics:			
	SFC4031	Computational Laboratory	EP	1	
	SFC4043	Semiconductor Quantum Structures	EP	3	
SFC4053	Computational Method in Physics	EP	3		

		• Energy Physics:		
	SFT4053	Renewable Energy	EP	3
	SFT4063	Fusion Energy	EP	3
	SFT4031	Energy Physics Laboratory	EP	1
		• Medical Physics:		
	SFP4053	Physics of Diagnostic Radiology	EP	3
	SFP4063	Physics Radiotherapy and Nuclear Medicine	EP	3
	SFP4031	Medical Physics Laboratory	EP	1
TOTAL				17
VIII	SFZ4999	Industrial Training	WF	9
TOTAL				9
TOTAL OVERALL CREDIT				133

Career in Applied Physics

Graduates of this programme can work as

1. Academics – Higher learning institutions (following pursuance of their degree qualifications to Masters or PhD levels)
2. Research Officer – Research institutes, higher learning institutions and industries
3. Science Officer - Research institutes, higher learning institutions and industries
4. Physics Teacher - Schools and colleges
5. Quality Control/Assurance and Marketing Officers – Agencies and industries