



Study Plan: Bachelor of Physics

First Level:

	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites	Type of requirements (University, College, or Program)
				Lec.	Tut.	Lab	Tr			
1	MTH 1101	General Mathematics	3	3	0	0	0	---	---	College
2	CHM 1100	General Chemistry (1)	3	2	0	2	0	---	---	College
3	ENGL 1102	English Language (1)	4	2	0	4	0	---	---	College
4		University Elective Course from Group (1)	2							University
5		University Elective Course from Group (1)	2							University
6		University Elective Course from Group (2)	2							University
7		University Elective Course from Group (3)	3							University
Total			19							

Second Level:

	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites	Type of requirements (University, College, or Program)
				Lec.	Tut.	Lab	Tr			
1	ENGL 1103	English Language (2)	4	2	0	4	0	ENGL 1102	---	College
2	BIO 1101	Principles of Biology	3	2	0	2	0	---	---	College
3	MTH 1102	Differential Calculus	3	3	0	0	0	MTH 1101	---	College
4	PHS 1100	General Physics (1)	3	2	0	2	0	---	---	College
5	MTH 1171	General Statistics	3	3	0	0	0	---	---	College
6	BUS 1102	Principles of Project Management	2	2	0	0	0	---	---	University
Total			18							



Third Level:

	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites	Type of requirements (University, College, or Program)
				Lec.	Tut.	Lab	Tr			
1	MTH 1203	Integral Calculus	3	3	0	0	0	MTH 1102	---	Program
2	PHS 1201	General Physics (2)	3	2	0	2	0	PHS 1100	---	Program
3	PHS 1211	Classical Mechanics (1)	3	3	0	0	0	PHS 1100	---	Program
4	PHS 1214	Safety and Physics Lab Management	3	0	0	0	6	---	---	Program
5	PHS 1213	Waves and Vibrations	3	3	0	0	0	PHS 1100	---	Program
6	CIS 1210	Principles of Artificial Intelligence in Science	2	2	0	0	0	---	---	Program
Total			17							

Fourth Level:

	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites	Type of requirements (University, College, or Program)
				Lec.	Tut.	Lab	Tr			
1	MTH 1284	Introduction to Differential Equations	3	3	0	0	0	MTH 1203	-	Program
2	PHS 1203	Mathematical Physics	3	3	0	0	0	PHS 1201	-	Program
3	PHS 1212	Classical Mechanics (2)	2	2	0	0	0	PHS 1211	-	Program
4	PHS 1243	Environmental Physics and Energy	4	3	0	2	0	PHS 1201	-	Program
5	PHS 1240	Electrical Circuit Analysis	3	2	0	2	0	PHS 1201	-	Program
6	PHS 1231	Electromagnetism	3	3	0	0	0	PHS 1201	-	Program
Total			18							



Fifth Level:

	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites	Type of requirements (University, College, or Program)
				Lec.	Tut.	Lab	Tr			
1	PHS 1351	Optics	3	3	0	0	0	PHS 1201	---	Program
2	PHS 1304	Computational Physics	2	1	0	2	0	PHS 1203	---	Program
3	PHS 1320	Thermal and Statistical Physics	3	3	0	0	0	PHS 1201	---	Program
4	PHS 1321	Introduction to Medical and Radiation Physics	3	3	0	0	0	PHS 1201	---	Program
5	PHS 1332	Electromagnetism Laboratory	2	0	0	4	0	PHS 1231	---	Program
6	PHS 1341	Modern Physics	3	3	0	0	0	PHS 1201	---	Program
7	PHS 1352	Measurements and Instrumentation in Physics	2	0	0	4	0	PHS 1240	---	Program
Total			18							

Sixth Level:

	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites	Type of requirements (University, College, or Program)
				Lec.	Tut.	Lab	Tr			
1	PHS 1333	Electronics	3	2	0	2	0	PHS 1231	---	Program
2	PHS 1353	Optics Lab	2	0	0	4	0	PHS 1351	---	Program
3	PHS 1342	Materials Science	4	3	0	2	0	PHS 1341	---	Program
4	PHS 1361	Solid State Physics	2	2	0	0	0	PHS 1201	---	Program
5	PHS 1322	Quantum Mechanics (1)	2	2	0	0	0	PHS 1320	---	Program
6	PHS xxx	Elective Course (Groupe A)	2							Program
Total			15							



Seventh Level:

	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites	Type of requirements (University, College, or Program)
				Lec	Tut.	Lab	Tr			
1	PHS 1491	Cooperative Training (1)	4	0	0	0	8	Pass 95 Credit Hours	PHS 1400	Program
2	PHS 1492	Scientific Writing and Physical Data Analytics	2	0	0	4	0	Pass 95 Credit Hours	---	Program
3	PHS 1400	Professional Courses	2	0	0	0	4	---	PHS 1491	University
4	PHS 1470	Nuclear Physics	2	2	0	0	0	PHS 1321	---	Program
5	PHS 1463	Solid State Physics Lab	2	0	0	4	0	PHS 1361	---	Program
6		Elective Course (Groupe B)	2							Program
Total			14							

Eighth Level:

	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites	Type of requirements (University, College, or Program)
				Lec.	Tut.	Lab	Tr			
1	PHS 1494	Cooperative Training (2)	4	0	0	0	8	PHS 1491		Program
2	PHS 1423	Quantum Mechanics (2)	3	3	0	0	0	PHS 1341	---	Program
3	PHS 1493	Research Project	3	0	0	6	0	Pass 100 Credit Hours PHS 1492	---	Program
4	PHS 1466	Introduction to Nanoscience and Nanotechnology	3	2	0	2	0	PHS 1361	---	Program
5	PHS 1467	Material Characterization and Analysis	3	2	0	2	0	PHS 1361	---	Program
Total			16							



Program Requirements (Elective Courses Group A):

The student must select (1) course (2 Credit Hours) from the list below:

#	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites
				Lec.	Tut.	Lab	Tr		
1	PHS 1354	Laser Physics and Applications	2	2	0	0	0	PHS 1351	--
2	PHS 1374	Biophysics	2	2	0	0	0	PHS 1321	--
3	PHS 1375	Semiconductors	2	2	0	0	0	PHS 1352	--
Total			2						

Program Requirements (Elective Courses Group B):

The student must select (1) course (2 Credit Hours) from the list below:

#	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites
				Lec.	Tut.	Lab	Tr		
1	PHS 1473	Seminars in Physics	2	0	0	0	4	PHS 1491	
2	PHS 1471	Radiation and Health Physics	2	2	0	0	0	PHS 1491	---
3	PHS 1472	Atomic and Molecular Spectroscopy	2	2	0	0	0	PHS 1491	---
4	PHS 1495	Selected Topics	2	2	0	0	0	PHS 1491	---
Total			2						



University Requirements (Elective Courses Group 1):

The student must select (2) courses (4 Credit Hours) from the list below Group (1):

#	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites
				Lec.	Tut.	Lab	Tr		
1	ISL 1100	The Noble Qur'an	2	2	0	0	0	--	--
2	ISL 1101	Interpretation of the Qur'an	2	2	0	0	0	--	--
3	ISL 1102	Creed and Family in Islam	2	2	0	0	0	--	--
4	ARB 1102	Arabic Language Skills	2	2	0	0	0	--	--
5	EDU 1101	History and Civilization of Kingdom of Saudi Arabia	2	2	0	0	0	--	--
6	EDU 1104	Islamic Ethics and Values	2	2	0	0	0	--	--
7	EDU 1105	Learning and Communication Skills	2	2	0	0	0	--	--
Total			4						

University Requirements (Elective Courses Group 2):

The student must select (1) course (2 Credit Hours) from the list below Group (2):

#	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites
				Lec	Tut.	Lab	Tr		
1	BUS 1101	Entrepreneurship	2	2	0	0	0	--	--
2	BUS 1103	Principles of Financial Knowledge	2	2	0	0	0	--	--
Total			2						

University Requirements (Elective Courses Group 3):

The student must select (1) course (3 Credit Hours) from the list below Group (3):

#	Course Code	Course Title	Credit Hours	Activity				Pre-requisites	Co-requisites
				Lec.	Tut.	Lab	Tr.		
1	CIS 1100	Computer Skills	3	2	0	2	0	-	-
Total			3						