

# Faculty of Science

## Department of Physics

### Study Plan Guide for the Bachelor Degree in Physics

**2019 / 2020**

## Study Plan Guide for the Bachelor Degree in Physics

First Year				
First Term				
Course No.	Course Title	Hrs.	Prerequisite	Corequisite
11031101	Calculus (1)	3		
11021101	General Physics (1)	3		
11021111	General Physics Laboratory (1)	1		11021101
11011101	General Chemistry (1)	3		
11011281	General Biology (1)	3		
	University Requirement	3		
<b>Total</b>		<b>16</b>		
Second Term				
Course No.	Course Title	Hrs.	Prerequisite	Co-requisite
11021202	General Physics (2)	3	11021101	
11021212	General Physics Laboratory (2)	1		11021202
11031102	Calculus (2)	3	11031101	
06051211	Programming Fundamentals	3	01100051 or pass Computer Skills Entry Test	
11031141	Statistics and Probability	3	11031101	
	University Requirement	3		
<b>Total</b>		<b>16</b>		

## Second Year

### First Term

Course No.	Course Title	Hrs.	Prerequisite	Co-requisite
11032164	Ordinary Differential Equations	3		11032103
11022181	Mathematical Physics (1)	3	11021202	
11022161	Modern Physics	3	11021202	
11032103	Calculus (3)	3	11031202	
11022121	Optics	3	11021202	
	University Requirement	3		
<b>Total</b>		<b>18</b>		

### Second Term

Course No.	Course Title	Hrs.	Prerequisite	Co-requisite
11022181	Mathematical Physics (1)	3	11021202	
11022231	Electronics	3	11021202	
11022282	Applications of computer in Physics	3	11022161	
11022213	Intermediate Physics Laboratory	1		11022121
11022222	Vibration and Waves	3	11022181	
	Department Electives	3		
<b>Total</b>		<b>16</b>		

### Third Year

#### First Term

Course No.	Course Title	Hrs.	Prerequisite	Co-requisite
11023162	Quantum Mechanics (1)	3	11022181 11022161	
11023132	Electromagnetic (1)	3	11022181	
11023114	Electronics Laboratory	1		11022231
11023151	Classical Mechanics (1)	3	11022181	
11023123	Laser Physics	3		11023162
	University Requirement	3		
<b>Total</b>		<b>16</b>		

#### Second Term

Course No.	Course Title	Hrs.	Prerequisite	Co-requisite
11023263	Quantum Mechanics (2)	3	11023162	
11023233	Electromagnetic (2)	3	11023132	
11023241	Thermodynamics	3	11022161	
11023252	Classical Mechanics (2)	3	11023151	
11023215	Advance Physics Laboratory	2	11022231	
	University Requirement	3		
<b>Total</b>		<b>17</b>		

### Fourth Year

#### First Term

Course No.	Course Title	Hrs.	Prerequisite	Co-requisite
11024142	Statistical Mechanics	3	11023241 11023162	
11024143	Energy Physics	3	11022181 11023241	
11024124	Environment Physics	3	11023241	
	Department Electives	3		
	University Requirement	3		
	University Requirement	3		
<b>Total</b>		<b>18</b>		

#### Second Term

Course No.	Course Title	Hrs.	Prerequisite	Co-requisite
11024271	Solid State Physics	3	11023162 11023263	
08012152	Curricula of Sciences and teaching methods	3	4 <sup>th</sup> level	
	Department Electives	3		
	Department Electives	3		
	University Requirement	3		
	Free course	3		
<b>Total</b>		<b>18</b>		