



**C. U. SHAH UNIVERSITY, WADHWAN CITY**  
**FACULTY OF SCIENCES**

# B.Sc.

**SEM – III & IV**

**Teaching & Evaluation  
Scheme WEF June 2016**



**C. U. SHAH UNIVERSITY, Wadhwan City**

**Name of Program : B. Sc.**

**Name of Branch : Che/Phy/Maths**

**Semester : III & IV**

**W.E.F. – June 2016**

### **Teaching and Evaluation Scheme**

**Before the third semester starts student has to choose their Core (Principal) Subject in which he/she wants the B. Sc. Degree. Also he/she has to choose a core subsidiary subject.**

Students who take **Chemistry** as Core subject (Principal) can opt only Physics as Core subject (subsidiary) (CP Group).

Students who take **Mathematics** as Core subject (Principal) can opt Physics as a Core subject (subsidiary) (MP Group) or Statistics as a Core subject (subsidiary) (MS Group).

Students who take **Physics** as Core subject (Principal) can opt Mathematics or Chemistry as Core subject (subsidiary) (MP or CP Group).

#### **Notes:**

- Course selections should be in such a way that none of the subject of courses is repeated in whole selection.
- Allotment will be based on the availability of the seats in the respective subject /course purely on merit basis.
- Elective Subject (Discipline specific) will remain same for Semester I & II but student can change it in Semester III & IV.

#### **Teaching & Learning Methodology:-**

- Faculty member/s shall explain in a class room using black board/white board, multimedia projector, chart, model etc.
- Assignments will be given to students for active learning.
- During Laboratories: The faculty may use software of related subject along with the laboratory equipment and laboratories will be conducted in batches. There will be curve tracing and problem solving sessions in Mathematics laboratories. In higher semesters the physics and mathematics practical should be done using C-language or C++ language or Scilab or Matlab or FORTRAN.



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## Teaching and Evaluation Scheme

Sr. No.	Brach Code	Subject Code	Subject Name	Teaching hours/week				Credit	Evaluation Scheme/semester								
				Th	Tu	Pr	Total		Theory				Practical				Total Marks
									Sessional Exam		University Exam		Internal		University		
									Marks	Hrs	Marks	Hrs	Pr	TW			
<b>Mathematics Core Compulsory Courses (For MP and MS Group)</b>																	
1	02, 03	4SC03ADC1	Advanced Calculus	3	0	0	3	3	30	1.5	70	3	--	--	--	100	
2		4SC03LIA1	Linear Algebra-I	3	0	0	3	3	30	1.5	70	3	--	--	--	100	
3		4SC03MAP1	Mathematics Practical-III	0	0	6	6	3	--	--	--	--	20	10	70	100	
<b>Mathematics Core Elective Courses (to choose any one of the below two subjects) (For MP and MS Group)</b>																	
4	02, 03	4SC03NUA1	Numerical Analysis	3	0	0	3	3	30	1.5	70	3	--	--	--	100	
5		4SC03LAS1	Logic and Sets	3	0	0	3	3	30	1.5	70	3	--	--	--	100	
<b>Statistics Core Compulsory Courses (For MS Group)</b>																	
6	02	4SC03DSP1	Descriptive Statistics and Probability Theory	3	0	0	3	3	30	1.5	70	3	--	--	--	100	
7		4SC03STM1	Statistical Methods	3	0	0	3	3	30	1.5	70	3	--	--	--	100	
8		4SC03STI1	Statistical Inference	3	0	0	3	3	30	1.5	70	3	--	--	--	100	
9		4SC03STP1	Statistics Practical-I	0	0	6	6	3	--	--	--	--	20	10	70	100	
<b>Physics Core Compulsory Courses (For MP and CP Group)</b>																	
10	01, 02, 03	4SC03TPS1	Thermal Physics and Statistical Mechanics	3	0	0	3	3	30	1.5	70	3	--	--	--	100	
11		4SC03ELM1	Electricity and Magnetism	3	0	0	3	3	30	1.5	70	3	--	--	--	100	
12		4SC03PPR1	Physics Practical-III	0	0	6	6	3	--	--	--	--	20	10	70	100	

<b>Physics Core Elective Courses (to choose any one of the below two subjects) (For MP and CP Group)</b>																
13	01, 02, 03	4SC03EMP1	Elements of Modern Physics	3	0	0	3	3	30	1.5	70	3	--	--	--	100
14		4SC03REE1	Renewable Energy and Energy Harvesting	3	0	0	3	3	30	1.5	70	3	--	--	--	100
<b>Chemistry Core Compulsory Courses(For CP Group)</b>																
15	01, 03	4SC03OCH1	Organic Chemistry-I	3	0	0	3	3	30	1.5	70	3	--	--	--	100
16		4SC03ICH1	Inorganic Chemistry-I	3	0	0	3	3	30	1.5	70	3	--	--	--	100
17		4SC03PRC1	Chemistry Practical-III	0	0	6	6	3	--	--	--	--	20	10	70	100
<b>Chemistry Core Elective Courses (to choose any one of the below two subjects)(For CP Group)</b>																
18	01, 03	4SC03PCH1	Physical Chemistry-I	3	0	0	3	3	30	1.5	70	3	--	--	--	100
19		4SC03ANC1	Analytical Chemistry-I	3	0	0	3	3	30	1.5	70	3	--	--	--	100
<b>Compulsory English Course for all students(For MP and CP Group)</b>																
20	01,02,03	4SC03CSE2	Communication Skills in English-I	2	0	0	2	2	30	1.5	70	3	--	--	--	100
<b>(MP Group) Total:</b>				<b>20</b>	<b>0</b>	<b>12</b>	<b>32</b>	<b>26</b>	<b>210</b>	<b>--</b>	<b>490</b>	<b>--</b>	<b>40</b>	<b>20</b>	<b>140</b>	<b>900</b>
<b>(CP Group) Total:</b>				<b>20</b>	<b>0</b>	<b>12</b>	<b>32</b>	<b>26</b>	<b>210</b>	<b>--</b>	<b>490</b>	<b>--</b>	<b>40</b>	<b>20</b>	<b>140</b>	<b>900</b>
<b>(MS Group) Total:</b>				<b>20</b>	<b>0</b>	<b>12</b>	<b>32</b>	<b>26</b>	<b>210</b>	<b>--</b>	<b>490</b>	<b>--</b>	<b>40</b>	<b>20</b>	<b>140</b>	<b>900</b>



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## Teaching and Evaluation Scheme

Sr. No.	Brach Code	Subject Code	Subject Name	Teaching hours/week				Credit	Evaluation Scheme/semester							
				Th	Tu	Pr	Total		Theory				Practical		Total Marks	
									Sessional Exam		University Exam		Internal			University
									Marks	Hrs	Marks	Hrs	Pr	TW		
<b>Mathematics Core Compulsory Courses (For MP and MS Group)</b>																
1	02, 03	4SC04DIC1	Differential and Integral Calculus	3	0	0	3	3	30	1.5	70	3	--	--	--	100
2		4SC04LIA1	Linear Algebra-II	3	0	0	3	3	30	1.5	70	3	--	--	--	100
3		4SC04MAP1	Mathematics Practical-IV	0	0	6	6	3	--	--	--	--	20	10	70	100
<b>Mathematics Core Elective Courses (to choose any one of the below two subjects) (For MP and MS Group)</b>																
4	02, 03	4SC04NUM1	Numerical Methods	3	0	0	3	3	30	1.5	70	3	--	--	--	100
5		4SC04MAF1	Mathematical Finance	3	0	0	3	3	30	1.5	70	3	--	--	--	100
<b>Statistics Core Compulsory Courses (For MS Group)</b>																
6	02	4SC04SSD1	Sample Surveys and Design of Experiments	3	0	0	3	3	30	1.5	70	3	--	--	--	100
		4SC04ASM1	Advanced Statistical Methods	3	0	0	3	3	30	1.5	70	3	--	--	--	100
7		4SC04STP1	Statistics Practical-II	0	0	6	6	3	--	--	--	--	20	10	70	100
<b>Statistics Core Elective Courses (to choose any one of the below two subjects)(For MS Group)</b>																
10	02	4SC04QRT1	Queueing and Reliability Theory	3	0	0	3	3	30	1.5	70	3	--	--	--	100
11		4SC04APS1	Applied Statistics	3	0	0	3	3	30	1.5	70	3	--	--	--	100
<b>Physics Core Compulsory Courses(For MP and CP Group)</b>																
12	01, 02, 03	4SC04WAO1	Waves and Optics	3	0	0	3	3	30	1.5	70	3	--	--	--	100
13		4SC04ADE1	Analog and Digital Electronics	3	0	0	3	3	30	1.5	70	3	--	--	--	100

14		4SC04PPR1	Physics Practical-IV	0	0	6	6	3	--	--	--	--	20	10	70	100
<b>Physics Core Elective Courses (to choose any one of the below two subjects)(For MP and CP Group)</b>																
15	01, 02, 03	4SC04APO1	Applied Optics	3	0	0	3	3	30	1.5	70	3	--	--	--	100
16		4SC04WEF1	Weather Forecasting	3	0	0	3	3	30	1.5	70	3	--	--	--	100
<b>Chemistry Core Compulsory Courses(For CP Group)</b>																
17	01, 03	4SC04OCH1	Organic Chemistry-II	3	0	0	3	3	30	1.5	70	3	--	--	--	100
18		4SC04ICH1	Inorganic Chemistry-II	3	0	0	3	3	30	1.5	70	3	--	--	--	100
19		4SC04PRC1	Chemistry Practical-IV	0	0	6	6	3	--	--	--	--	20	10	70	100
<b>Chemistry Core Elective Courses (to choose any one of the below two subjects)(For CP Group)</b>																
20	01, 03	4SC04PCH1	Physical Chemistry-II	3	0	0	3	3	30	1.5	70	3	--	--	--	100
21		4SC04IDC1	Industrial Chemistry-I	3	0	0	3	3	30	1.5	70	3	--	--	--	100
<b>Compulsory English Course for all students(For MP and CP Group)</b>																
22	01,02, 03	4SC04CSE1	Communication Skills in English-II	2	0	0	2	2	30	1.5	70	3	--	--	--	100
<b>(MP Group) Total:</b>				<b>20</b>	<b>0</b>	<b>12</b>	<b>32</b>	<b>26</b>	<b>210</b>	<b>--</b>	<b>490</b>	<b>--</b>	<b>40</b>	<b>20</b>	<b>140</b>	<b>900</b>
<b>(CP Group) Total:</b>				<b>20</b>	<b>0</b>	<b>12</b>	<b>32</b>	<b>26</b>	<b>210</b>	<b>--</b>	<b>490</b>	<b>--</b>	<b>40</b>	<b>20</b>	<b>140</b>	<b>900</b>
<b>(MS Group) Total:</b>				<b>20</b>	<b>0</b>	<b>12</b>	<b>32</b>	<b>26</b>	<b>210</b>	<b>--</b>	<b>490</b>	<b>--</b>	<b>40</b>	<b>20</b>	<b>140</b>	<b>900</b>