

**1<sup>st</sup> SEMESTER TEACHING PLAN (CBCS Course)****Department of Chemistry****SBMS College, Sualkuchi****Session: 2019-2020**

<b>Subject</b>	<b>Chemistry</b>	<b>Semester</b>	<b>I</b>			
<b>Course</b>	<b>B.Sc (Hons.)</b>	<b>Paper Code/Name</b>	<b>CHE-HC-1014: Inorganic Chemistry</b>			
<b>Credit</b>	<b>4 (Theory) +2 (Practical)</b>	<b>Marks</b>	<b>60 (Theory)+20(Practical)</b>			
<b>Unit</b>	<b>Course Title</b>	<b>Allotted to</b>	<b>Hours</b>	<b>Month</b>	<b>Date</b>	
1	Atomic Structure:	Dr. Bhabesh Chandra Dekha	14	Aug	02-08 to 20-08-2019	
2	Periodicity of Elements:	Dr. Bhabesh Chandra Dekha	16	Aug/Sept	21/08 to 15/09/2019	
3	Chemical Bonding:	Dr. Bhabesh Chandra Dekha	26	September / October	16-09 to 20-09-2019	
4	Oxidation-Reduction:	Dr. Bhabesh Chandra Dekha	4	October	21-09 to 30-09-2019	
<b>LAB</b>	(A) Titrimetric Analysis (B) Acid-Base Titrations (C) Oxidation-Reduction Titrimetry	Dr. Bhabesh Chandra Dekha	10 10 10	Aug Sept Oct		

# 1<sup>st</sup> SEMESTER TEACHING PLAN

Department of Chemistry

SBMS College, Sualkuchi

Session: 2019-2020

<b>Subject</b>	<b>Chemistry</b>	<b>Semester</b>	<b>I</b>		
<b>Course</b>	B.Sc (Hons,)	<b>Paper Code/Name</b>	CHE-HC-1026: Physical Chemistry		
<b>Credit</b>	4 (Theory) +2 (Practical)	<b>Marks</b>	60 (Theory)+20 (Practical)		
<b>Unit</b>	<b>Course Title</b>	<b>Allotted to</b>	<b>Hours</b>	<b>Month</b>	<b>Date</b>
<b>1</b>	Gaseous state	Mr. Kangkan K. Barua	18	Aug	02-08 to 25-08-2019
<b>2</b>	Liquid state:	Mr. Kangkan K. Barua	6	Aug	26-08 to 02-09-2019
<b>3</b>	Molecular and Crystal Symmetry	Mr. Kangkan K. Barua	6	Sept	03-09 to 09-09-2019
<b>4</b>	Solid state:	Mr. Kangkan K. Barua	10	Sept	10-09 to 23-09-2019
<b>5</b>	Ionic equilibria:	Mr. Kangkan K. Barua	20	Oct	24-09 to 31-10-2019
<b>LAB</b>	1. Surface tension measurements.	Mr. Kangkan K. Barua	10	Aug	
	2. Viscosity measurement using Ostwald's viscometer.	Mr. Kangkan K. Barua	10	Sept	
	3. Indexing of a given powder diffraction pattern of a cubic crystalline system.	Mr. Kangkan K. Barua	10	Oct	
	4. pH metry				

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SBMS College, Sualkuchi

Session: 2019-2020

Subject	Chemistry	Semester	I		
Course	B.Sc (Hons.) /Regular	Paper Code/Name	CHE-HG/RC-1026: Atomic Structure, Bonding, General Organic Chemistry & Aliphatic Hydrocarbons		
Credit	4 (Theory) +2 (Practical)	Marks	60 (Theory)+20(Prctical)		
Unit	Course Title	Allotted to	Hours	Month	Date
1	Atomic Structure	Dr. Bhabesh Ch Deka	14	Aug/ Sept	02-08 to 24-09-2019
2	Chemical Bonding and Molecular Structure	Mr. Kangkan K. Barua	16	Aug/Sept	02-08 to 24-09-2019
3	Fundamentals of Organic Chemistry	Dr. Bhabesh Ch. Deka	8	Sept/Oct	26-09to 20- 10-2019
4	Stereochemistry	Dr. Pulin Ch Sarma	10	Aug	02-08to 31- 08-2019
5	Aliphatic Hydrocarbons	Dr. Pulin Ch. Sarma	20	Oct/ Nov	01/09 to 05/11/2022
LAB	<i>Inorganic Chemistry - Volumetric Analysis</i>	Dr Bhabesh Ch Deka	15	Aug/Sept /Oct	
	<i>Organic Chemistry Practicals</i>	Dr. Pulin Ch. Sarma	15	August/S eptember /October	

**2<sup>nd</sup> SEMESTER TEACHING PLAN**  
**Department of Chemistry**  
**SBMS College, Sualkuchi**  
**Session: 2019-2020**

<b>Subject</b>	Chemistry	<b>Semester</b>	<b>II</b>		
<b>Course</b>	B.Sc (Hons,)	Paper Code/Name	CHE-HC-2016: Organic Chemistry		
<b>Credit</b>	4 (Theory) +2 (Practical)	<b>Marks</b>	60 (Theory)+20(Prctical)		
<b>Unit</b>	<b>Course Content</b>	<b>Allotted to</b>	<b>Hours</b>	<b>Month</b>	<b>Date</b>
1	Basics of Organic Chemistry	Dr. Pulin Ch. Sarma	8	January	18-01 to 31-01-2020
2	Stereochemistry:	Dr. Bhabesh Ch. Deka	16	Jan-Feb	18/01 to 28/02/20
3	Chemistry of Aliphatic Hydrocarbons	Dr. Pulin Ch. Sarma	24	Feb / Mar	01-02 to 19-03-2020
4	Aromatic Hydrocarbons	Dr. Bhabesh Ch Deka	12	March	01/03 to 19/03/2020
<b>LAB</b>	Organic Practicals	Dr. Pulin Ch. Sarma	20		18/01 to 19/03/2020
	Inorganic Practicals	Dr. Bhabesh Ch Deka	10		18/01 to 19/03/2023

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**Department of Chemistry**  
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<b>Subject</b>	Chemistry	<b>Semester</b>	<b>II</b>		
<b>Course</b>	B.Sc (Hons,)	<b>Paper Code/Name</b>	CHE-HC-2026: Physical Chemistry		
<b>Credit</b>	6 (Theory) +2 (Practical)	<b>Marks</b>	60 (Theory)+20(Prctical)		
<b>Unit</b>	<b>Course Title</b>	<b>Allotted to</b>	<b>Hours</b>	<b>Month</b>	<b>Date</b>
1	Chemical Thermodynamics	Kangkan K Barua	36	Jan	18/01 to 15/03/2020
2	Systems of Variable Composition:	Kangkan K Barua	8		16/03 28-02-2020
3	Chemical Equilibrium:	Kangkan K Barua	8		01-03 to 11-03-2020
4	Solutions and Colligative Properties:	Kangkan K Barua	8		12-03-2020 to 25-03-2020
<b>LAB</b>	Thermochemistry	Kangkan K Barua	30		18-01-2020 to 25-03-2020

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**Department of Chemistry**

**SBMS College, Sualkuchi**

**Session: 2019-2020**

Subject	Chemistry	Semester	II			
Course	B.Sc (Hons) /Regular	Paper Code/Name	CHE-HG/RC-2016: <i>S- And P-Block Elements, Transition Elements, Coordination Chemistry States Of Matter &amp; Chemical Kinetics</i>			
Credit	4 (Theory) +2 (Practical)	Marks	60 (Theory)+20(Prctical)			
Unit	Course Title	Allotted to	Hours	Month	Date	
1	<i>s- and p-Block Elements</i>	Dr. Pulin Ch. Sarma	10	Jan-Feb	18/01/2020 to 22/02/2020	
2	Transition Elements (3d series)	Dr. Bhabesh Ch. Dekka	6	Jan/feb	18/01/2020 to 12/02/2020	
3	Coordination Chemistry		14		13/02/2020 to 20/03/2020	
4	<i>Section B: Physical Chemistry-3</i>	Dr. Pulin Ch. Sarma	8	Feb/ Mar	23/02/2020 to 20/02/2020	
5	Liquids	Mr. Kangkan K Barua	6		18/01 to 11/02/2020	
6	Solids	Mr. Kangkan K Barua	8		12-02-2020 to 28/02/2020	
7	Chemical Kinetics	Mr. Kangkan K Barua	8		01/03/2020 to 20/03/2020	
LAB	<i>Section A: Inorganic Chemistry</i>	Dr. Bhabesh Ch. Dekka	15		18/01/2020 to 20/03/2020	
	<i>Section B: Physical Chemistry</i>	Mr. Kangkan K Barua	15		18/01/2023 to 20/03/2023	

### 3<sup>rd</sup> SEMESTER TEACHING PLAN

Department of Chemistry

SBMS College, Sualkuchi

Session: 2018-2019

**Subject: Chemistry (Major)**

**Paper: M-301 (Structure and Bonding)**

**Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
3.1	Atomic Structure	40	Bhabesh Ch. Deka	45	Aug and Sept	02/08 to 30/09/2018
3.2	Chemical Bonding I	20	Bhabesh Ch. Deka	20	Oct and Nov	01/10 to 10/11/2018

**Paper: M-302 (Organic Chemistry)**

**Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
3.3	Chemical Bonding II	20	Bhabesh Ch. Deka	25	Aug-Sept	02/08 to 10/09/2018
3.4	Chemical Bonding III	20	Bhabesh Ch. Deka	20	Sept- Oct	11/09 to 10/10/2018
3.5	Ionic Bonds and Solids	20	Bhabesh Ch. Deka	20	Oct - Nov	11/10 to 15/11/2018

**Subject: Chemistry (General)**

**Paper: E-301 (General Chemistry)**

**Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
3.1	Chemistry of non-transition elements I	10	Kangkan K Barua	10	Aug	02/08 to 17/09/2018
3.2	Chemistry of non-transition elements II	15	Dr Pulin Ch Sarma	15	Aug-Sept	18/08 to 10/09/2018
3.3	Transition elements	15	Kangkan K Barua	20	Sept-Oct	11/09 to 15/10/2018
3.4	Electrochemistry	20	Kangkan K Barua	25	Oct-Nov	16/10 to 15/11/2018

## 4<sup>th</sup> SEMESTER TEACHING PLAN

Department of Chemistry

SBMS College, Sualkuchi

Session: 2018-2019

**Subject: Chemistry (Major)**

**Paper: M-401 (Inorganic Chemistry)**

**Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes	Month	Date
4.1	Properties of Inorganic Compounds	25	Bhabesh Ch. Deka	30	Jan-Feb	18/01 to 05/03/2019
4.2	Chemistry of Non-transition Elements I	25	Bhabesh Ch. Deka	20	March	06/03 to 05/04/2019
4.3	Chemistry of Non-transition Elements II	15	Bhabesh Ch. Deka	10	April	06/04 to 30/04/2019

**Paper: M-402 (Inorganic Chemistry)**

**Full Marks: 60**

Unit	Course Title	Marks	Allotted to	Classes planned	Month	Date
4.4	Chemistry of Non-transition Elements (III)	10	Bhabesh Ch. Deka	10	Jan	18/01 to 05/02/2019
4.5	Chemistry of Metals	25	Bhabesh Ch. Deka	30	Feb-Mar	06/02 to 16/03/2019
4.6	Transition Metals	25	Bhabesh Ch. Deka	30	Mar-Apr	17/03 to 30/04/2019

**Subject: Chemistry (General)**

**Paper: E-401**

**Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes	Month	Date
4.1	Aliphatic and aromatic hydroxyl compounds and ethers	10	Dr. Pulin Ch Sarma	10	Jan	18/01 to 05/02/2019
4.2	Aliphatic amines and aniline	8	Dr. Pulin Ch Sarma	5	Feb	06/02 to 14/02/2019
4.3	Aliphatic and aromatic carbonyl compounds	10	Dr. Pulin Ch Sarma	10	Feb	15/02 to 28/02/2019
4.4	Aliphatic / aromatic carboxylic acids	9	Kangkan K Barua	15	Mar	01/03 to 20/03/2019
4.5	Chemical kinetics and surface chemistry	13	Kangkan K Barua	15	Mar-Apr	21/03 to 10/04/2019
4.6	Ionic equilibrium	10	K K Barua	15	Apr	11/04 to 30/04/2019



**5<sup>th</sup> SEMESTER TEACHING PLAN**  
**Department of Chemistry**  
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**Session: 2018-2019**

**Subject: Chemistry (Major)**

**Paper : M-501 (Quantum Chemistry)**

**Full Marks : 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
5.1	Quantum Theory	30	Bhabesh Ch. Deka	30	Aug-Sept	02/08 to 14/09/2018
5.2	Atomic Structure	20	Bhabesh Ch. Deka	25		15/09 to 22/10/2018
5.3	The Nature of Chemical Bond	15	Bhabesh Ch. Deka	15		23/10 to 15/11/2018

**Paper: M-502 (Physical Chemistry)**

**Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
5.4	Molecular Reaction Dynamics	15	Kangkan K Barua	20	Aug	02/08 to 31/08/2018
5.5	Photochemistry	15	Kangkan K Barua	20	Sept	01/09 to 30/09/2018
5.6	Phase	20	Kangkan K Barua	20	Oct	01/10 to 31/10/2018
5.7	Surface Chemistry	10	Kangkan K Barua	10	Oct	01/11 to 15/11/2018

**Paper : M-503 (Inorganic Chemistry)**

**Full Marks : 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
5.8	Organic Reaction Mechanisms	30	Dr. Pulin Ch. Sarma	35	Aug-Sept	02/08 to 15/09/2018
5.9	Polynuclear Aromatics, Nitro and amino comp, Organo S and organo P Compounds, Active methylene compounds and Heterocyclic compounds	30	Dr. Pulin Ch. Sarma	35	Sept-Oct	16/09 to 15/11/2018

**Paper: M-504 (Inorganic Chemistry)****Full Marks : 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
5.10	Bonding in Coordination Compounds	25	Bhabesh Ch. Deka	30	Aug and Sept	02/08 to 14/09/2018
5.11	Organometallic Compounds	25	Bhabesh Ch. Deka	30	Sept and Oct	15/09 to 31/10/2018
5.12	Bioinorganic Chemistry I	10	Bhabesh Ch. Deka	10	Nov	01/11 to 15/11/2018

**Subject: Chemistry (General)****Paper: E-501****Full Marks: 80**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
5.1	Chemistry of materials	15	Kangkan K Barua	15	Aug	02/08 to 23/08/2018
5.2	Principles of chemical analysis	15	Kangkan K Barua	15	Sept	24/08 to 15/09/2018
5.3	Principles and applications of spectroscopy-1	20	Dr Pulin Ch Sarma	15	Nov	16/09 to 05/10/2018
5.4	Unit 5.4 Principles and applications of spectroscopy-2	15	Dr Pulin Ch Sarma	15		06/10 to 27/10/2018
5.5	Nuclear chemistry	15	Kangkan K Barua	15		28/10 to 15/11/2018

**6<sup>th</sup> SEMESTER TEACHING PLAN**  
**Department of Chemistry**  
**SBMS College, Sualkuchi**  
**Session: 2018-2019**

**Subject: Chemistry (Major)**

**Paper: M-601 (Spectroscopy)**

**Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
6.1	Introduction to Spectroscopy	10	Dr. Bhabesh Ch. Deka	10	Jan	18/01 to 07/02/2019
6.2	Rotational, Vibrational and Raman Spectroscopy	20	Dr. Bhabesh Ch Deka	25	Feb-Mar	08/02 to 14/03/2019
6.3	Electronic spectroscopy	10	Dr. Bhabesh Ch Deka	13	Mar-Apr	15/03 to 03/04/2019
6.4	Spin resonance spectroscopy	10	Kangkan K Barua	12	Jan-Feb	04/04 to 20/04/2019
6.5	Mass spectroscopy	10	Dr. Pulin Ch Sarma	10	Feb-Mar	21/04 to 30/04/2019

**Paper: M-602 (Physical Chemistry)**

**Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
6.6	Solid State	20	Kangkan K Barua	20	Jan-Feb	18/01 to 18/02/2019
6.7	<u>Macromolecules and Colloids</u>	15	Kangkan K Barua	20	Feb-Mar	19/02 to 18/03/2019
6.8	<u>Statistical Thermodynamics</u>	20	Kangkan K Barua	20	Mar-Apr	19/03 to 23/04/2019
6.9	<u>Data Analysis</u>	5	Kangkan K Barua	5	Apr	24/04 to 30/04/2019

**Paper: M-603 (Organic Chemistry)****Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
6.8	Organic Photochemistry, Polymers and Fibres	20	Dr. Pulin Ch. Sarma	30	Jan-Feb	18/01 to 18/02/2019
6.9	Biochemistry	20	Dr. Pulin Ch. Sarma	20	Feb-Mar	19/02 to 18/03/2019
6.10	Natural Products and Medicinal Chemistry	20	Dr. Pulin Ch. Sarma	20	Mar-Apr	19/03 to 30/04/2019

**Paper: M-604 (Inorganic Chemistry)****Full Marks : 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
6.10	Spectra of coordination compounds	25	Bhabesh Ch. Deka	30	Jan-Feb	18/01 to 28/02/2019
6.11	Bioinorganic Chemistry II	15	Bhabesh Ch. Deka	10	Mar	01/03 to 13/03/2019
6.12	Nuclear Chemistry, Lanthanides and Actinides	25	Bhabesh Ch. Deka	30	Mar-Apr	14/03 to 30/04/2019

**Subject: Chemistry (General)****Paper: E-601****Full Marks: 60**

Unit	Course Title	Marks	Allotted to	No. of Classes planned	Month	Date
6.1	Industrial Chemistry – Inorganic Polymers	20		20	Jan-Feb	18/01 to 28/02/2019
6.2	Industrial Chemistry- Organic Polymers	20	Dr Pulin Ch Sarma	20	Mar	01/03 to 25/03/2019
6.3	Environmental Chemistry	20	Bhabesh Ch Deka	30	Jan-Apr	25/03 to 30/04/2019