



MARUDHAR KESRI JAIN COLLEGE FOR WOMEN (Autonomous), VANIYAMBADI

PG DEPARTMENT OF CHEMISTRY

SEMSTER I

COURSE TYPE: BRIDGE COURSE 2024-2025

COURSE TITLE: FUNDAMENTALS OF BASIC CHEMISTRY

LEARNING OBJECTIVE

- To understand basics of chemistry
- To develop working skills with qualitative and quantitative.
- To acquire basic knowledge in atomic structure, periodic tables, organic compounds.

COURSE OUTLINE

Unit I: Atomic Structure

Structure of an atom, atomic number, atomic weight, stable and unstable atoms, molecules Atomic Orbitals, quantum, numbers – Azimuthal, magnetic and spin Quantum numbers and their significance. Pauli's exclusion principle, Hund's rule & Aufbau principle. Classification of s, p, d & f block elements.

Unit II: Periodic trends & Thermodynamics

Periodic table trends–Electron configuration, atomic radii, Ionization energy, Electronegativity, Electron affinity, Metallic characters. Thermodynamics- definition, types of thermodynamics laws and application of thermodynamics

Unit III: Principles Chemical Analysis

Definition - Molarity, normality and mole fraction-Types of titrimetric reactions acid - base, redox, precipitation and complex metric titrations, Indicators neutralization, redox, adsorption and metal ion indicators, Ionic bond or electrovalent bonds, covalent bonds, Vander-Waals bond, Hydrogen bonds, a hydro bond– pH, Effect of change in pH-Buffer system.

Unit IV : Organic Compounds

Carbohydrates, Lipids, Proteins, and Nucleic acids components and its uses.

Unit V: Higher studies & Job opportunities

Bachelor of Education, Post Graduation, Specialized Post Graduation, and Recruitment for Chemistry graduates - Govt Jobs, Private Jobs.

COURSE OUTCOME

- Knowledge: Students acquire theoretical knowledge and understanding of the fundamental concepts, principles and processes in main branches of chemistry
- Laboratory Skills: A much valued learning outcome of this programme is the laboratory skills that students develop during the course.
- Capacity Enhancement: Modern day scientific environment requires students to possess ability to think independently as well as be able to work productively in groups.

TEXT BOOK

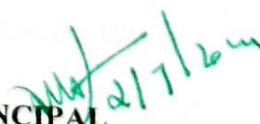
R.D.Madan

Arun Bahl and B.S Bahl

Puri Sharma

Dr.N.Karunanidhi


HOD 21/7/2024

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BRIDGE COURSE - FUNDAMENTALS OF BASIC CHEMISTRY

Name of the Handling Staff

Unit I: Atomic Structure

- Ms.S.Baranipriya

Unit II: Periodic trends & Thermodynamics

- Dr.J.Logeswari

Unit III: Principles Chemical Analysis

- Ms.S.Tamizharasi

Unit IV: Organic Compounds

- Dr.J.Logeswari

Unit V: Higher Studies and Job opportunities

- Ms.S.Baranipriya


21/7/2024
HOD

DEAN


01/07/2024


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NEED FOR BRIDGE COURSE

A bridge course in chemistry is designed to help students transition from one level of study to another, typically from high school to university or from a non-chemistry background to a chemistry-related field. The purpose of a bridge course is to:

1. Review and solidify fundamental concepts: Refresh students' knowledge of basic chemistry principles, ensuring a strong foundation for advanced studies.
2. Fill knowledge gaps: Address any deficiencies in students' prior education, ensuring they have the necessary background to succeed in higher-level courses.
3. Introduce new topics and techniques: Provide a head start on advanced chemistry concepts, laboratory techniques, and problem-solving strategies.
4. Develop skills and confidence: Enhance students' analytical, problem-solving, and communication skills, boosting their confidence in tackling chemistry challenges.
5. Prepare for university-level work: Ease the transition to university-level chemistry courses, which often have different expectations and rigor than high school classes.

By taking a bridge course, students can:

- Improve their understanding and retention of chemistry concepts
- Enhance their academic preparedness and performance
- Gain a competitive edge in their studies and future careers

Bridge courses are usually optional but highly recommended for students who want to ensure a strong foundation in chemistry or need a refresher before diving into more advanced studies.



MARUDHAR KESARI JAIN COLLEGE FOR WOMEN (AUTONOMOUS), VANIYAMBADI

PG DEPARTMENT OF CHEMISTRY

2024-2025

I B.Sc CHEMISTRY

BRIDGE COURSE TIME TABLE

Date/ Hour	I	II	III	IV	V	VI
20.06.2024	Fundamentals of Basic Chemistry Ms.S.Baranipriya	Fundamentals of Basic Chemistry Dr.J.Logeswari	Fundamentals of Basic Chemistry Ms.S.Tamizharasi	Commnucative English Ms. D.S.Shamitha	Sports	Commnucative English-Placement Ms.V.S.Lavanya
21.06.2024	Commnucative English Ms. D.S.Shamitha	Fundamentals of Basic Chemistry Dr.J.Logeswari	Fundamentals of Basic Chemistry Ms.S.Baranipriya	Commnucative English-Placement Ms.S.Puvizhi	Fundamentals of Basic Chemistry Dr.J.Logeswari	Sports
24.06.2024	Commnucative English-Placement Ms.S.Puvizhi	Fundamentals of Basic Chemistry Ms.S.Tamizharasi	Fundamentals of Basic Chemistry Ms.S.Baranipriya	Sports	Fundamentals of Basic Chemistry Ms.S.Tamizharasi	Commnucative English Ms. D.S.Shamitha
25.06.2024	Commnucative English-Placement Ms.V.S.Lavanya	Sports	Fundamentals of Basic Chemistry Ms.S.Tamizharasi	Commnucative English Ms. D.S.Shamitha	Fundamentals of Basic Chemistry Dr.J.Logeswari	Fundamentals of Basic Chemistry Ms.S.Baranipriya
26.06.2024	Fundamentals of Basic Chemistry Ms.S.Baranipriya	Fundamentals of Basic Chemistry Dr.J.Logeswari	Commnucative English Ms. D.S.Shamitha	Sports	Fundamentals of Basic Chemistry Ms.S.Tamizharasi	Commnucative English-Placement Ms.E.Nahida Tabassum


HOD 1/7/2024


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01/07/2024


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Vaniyambadi**

PG DEPARTMENT OF CHEMISTRY

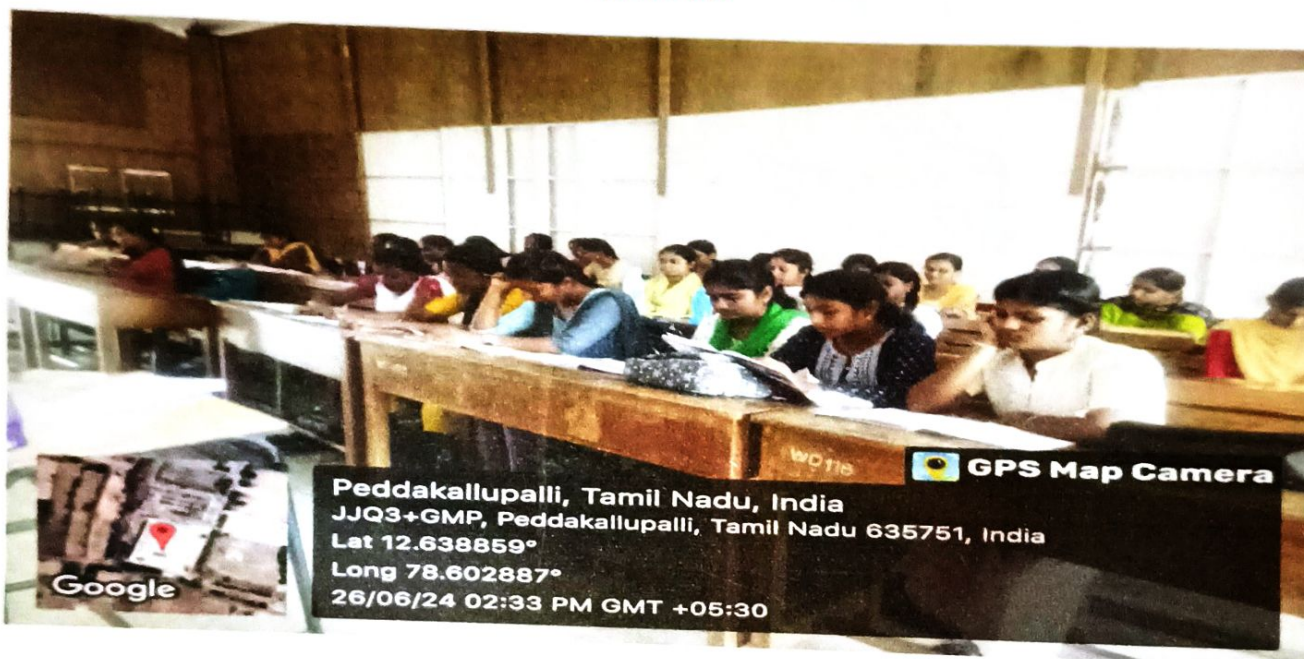
2024-2025

BRIDGE COURSE

FUNDAMENTALS OF BASIC CHEMISTRY

20.06.2024 – 26.06.2024

PHOTOS



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Vanivambadi - 035 751**



Marudhar Kesari Jain College for Women (Autonomous), Vaniyambadi

Bridge course Feedback

Department: Chemistry

Academic Year: 2024-2025

Class: I B.Sc Chemistry

Course Name: Fundamentals of Basic Chemistry

S.N o	Name of the Student	Signature				
		20.6.2024	21.6.2024	24.6.2024	25.6.2024	26.6.2024
1	ABITHYA. S	Abithya	Abithya	Abithya	Abithya	Abithya
2	AKSHAYA YADAV. K.S	Akshaya	Akshaya	Akshaya	Akshaya	Akshaya
3	BHUVANESWARI. S	S. Bhuvani	S. Bhuvani	S. Bhuvani	S. Bhuvani	S. Bhuvani
4	DEEPIKA. G	G. Deepika	G. Deepika	G. Deepika	G. Deepika	G. Deepika
5	DHARSHINI. S	S. Dharshini	S. Dharshini	S. Dharshini	S. Dharshini	S. Dharshini
6	GAJALAKSHMI. P	P. Gajalakshmi	P. Gajalakshmi	P. Gajalakshmi	P. Gajalakshmi	P. Gajalakshmi
7	GAYATHRI. M	M. Gayathri	M. Gayathri	M. Gayathri	M. Gayathri	M. Gayathri
8	JAYASHREE. S	S. Jayashree	S. Jayashree	S. Jayashree	S. Jayashree	S. Jayashree
9	KALAIVANI. D	D. Kalai Vani	D. Kalai Vani	D. Kalai Vani	D. Kalai Vani	D. Kalai Vani
10	KAMINI SRI. S	S. Kamini Sri	S. Kamini Sri	S. Kamini Sri	S. Kamini Sri	S. Kamini Sri
11	KAVIYA. A	A. Kaviya	A. Kaviya	A. Kaviya	A. Kaviya	A. Kaviya
12	KEERTHANA. K	K. Keerthana	K. Keerthana	K. Keerthana	K. Keerthana	K. Keerthana
13	KOMATHI. A	A. Komathi	A. Komathi	A. Komathi	A. Komathi	A. Komathi
14	MAHALAKSHMI. R	R. Mahalakshmi	R. Mahalakshmi	R. Mahalakshmi	R. Mahalakshmi	R. Mahalakshmi
15	MAHALAKSHMI. S	S. Mahalakshmi	S. Mahalakshmi	S. Mahalakshmi	S. Mahalakshmi	S. Mahalakshmi
16	NITHILA. J	J. Nithila	J. Nithila	J. Nithila	J. Nithila	J. Nithila

17	PADMAVATHI . S	Padma	Padma	Padma	Padma	Padma
18	PAVITHRA . S	S. Pavithra	S. Pavithra	S. Pavithra	S. Pavithra	S. Pavithra
19	PRIYA . M	M. Priya	M. Priya	M. Priya	M. Priya	M. Priya
20	PRIYADHARSHINI . N	N. Didi	N. Didi	N. Didi	N. Didi	N. Didi
21	PUSHPALATHA . V	V. Purny	V. Purny	V. Purny	V. Purny	V. Purny
22	RATCHITHA . J	J. Ratchitha	J. Ratchitha	J. Ratchitha	J. Ratchitha	J. Ratchitha
23	RESHMA . K	Reshma	Reshma	Reshma	Reshma	Reshma
24	SANDHIYA SRI . I	I. Sandhiya	I. Sandhiya	I. Sandhiya	I. Sandhiya	I. Sandhiya
25	SANJEETHA . K	K. Sanjeetha	K. Sanjeetha	K. Sanjeetha	K. Sanjeetha	K. Sanjeetha
26	SHALINI . J	J. Shalini	J. Shalini	J. Shalini	J. Shalini	J. Shalini
27	SHEEBA PARVEEN . A	Sheeba	Sheeba	Sheeba	Sheeba	Sheeba
28	SHOBIGAA . M	M. Shobi	M. Shobi	M. Shobi	M. Shobi	M. Shobi
29	SONIYA . R	R. Soniya	R. Soniya	R. Soniya	R. Soniya	R. Soniya
30	SRIMALINI . P	P. Srimalini	P. Srimalini	P. Srimalini	P. Srimalini	P. Srimalini
31	VIJAYALAKSHMI . G	G. Vijayalakshmi	G. Vijayalakshmi	G. Vijayalakshmi	G. Vijayalakshmi	G. Vijayalakshmi

S. P. Priya
2/7/24
CLASS INCHARGE

Prasanna
2/7/24
HOD

M. P. P. P.
2/7/24
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Bridge course Feedback

Department: Chemistry

Academic Year: 2024-2025

Class: I B.Sc Chemistry

Course Name: Fundamentals of Basic Chemistry

S.No	Name of the Student	Feedback
1	ABITHYA. S	very good Helped to devlope my knowledge
2	AKSHAYA YADAV. K.S	Those classes helped me to recall the 11th & 12th basics in every subject
3	BHUVANESWARI. S	Very good. help to understand well
4	DEEPIKA. G	It is very good and is useful to recall
5	DHARSHINI. S	Your teaching is Good and learnt something new.
6	GAJALAKSHMI. P	These I will learn more knowledge & extra knowledge so it useful for the syllabus.
7	GAYATHRI. M	It was useful to recall my old syllabus
8	JAYASHREE. S	It is useful to recall, very good
9	KALAIVANI. D	Very good, help to understand well.
10	KAMINI SRI. S	Good Helped to develop knowledge
11	KAVIYA. A	It is very informative and provided a basic understanding about chemistry
12	KEERTHANA. K	understood well and very useful
13	KOMATHI. A	bridge course was helped for us to learn about the basic of chemistry
14	MAHALAKSHMI. R	helps to recall the basics of chemistry and gain knowledge about it
15	MAHALAKSHMI. S	The bridge course helped me to understand about chemistry
16	NITHILA. J	Good Helped to develop my knowledge
17	PADMAVATHI. S	Very Good, Help to understand Well.

18	PAVITHRA . S	Its very effective you and help full.
19	PRIYA . M	It was really intresting to listen the class helped me to recall my syllabus.
20	PRIYADHARSHINI . N	It help to recall the subject and the Bridge course helps to memorat our studies.
21	PUSHPALATHA . V	Learn many things from these classes and it is useful for us.
22	RATCHITHA . J	The bridge course was more informative. we got knowledge about the basis of chemistry.
23	RESHMA . K	It helped us to recall the basis of class 11 th & 12 th . It was interesting & useful.
24	SANDHIYA SRI . I	I understand well and it is very useful.
25	SANJEETHA . K	The bridge course was more informative and provided basic understanding of chemistry.
26	SHALINI . J	I understand well and it is very useful.
27	SHEEBA PARVEEN . A	It is an interesting class and we study a lot of things about chemistry & importance.
28	SHOBIGAA . M	I found the bridge course really helpful. I relearned many concepts.
29	SONIYA . R	It helped me to recall my basis. It was interesting.
30	SRIMALINI . P	This bridge course was effective and help full and interesting.
31	VIJAYALAKSHMI . G	The bridge course was effective and helpful.

S. Pabithra
10/7/24
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10/7/2024
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