



Marudhar Kesari Jain College for Women, Vaniyambadi
PG & Research Department of Biochemistry
Bridge Course Syllabus 2022-2023

29 Years
of Educational
Excellence

Course Name: Career Perspectives of Biochemistry

COURSE OBJECTIVE: To Provide Elementary Knowledge/Overview of Structure and Functions and Metabolism of Biomolecule. Explain the Structure and Biochemical Functions of Different Cell Organelles of a Eukaryotic Cell.

UNIT - I : INTRODUCTION ABOUT BIOCHEMISTRY

Scope and applications of Biochemistry. Specialized areas in Biochemistry.

Course outcome: Understand the principles of various fields of Bio-chemistry and Biology (organic chemistry, analytical chemistry, biochemistry, genetics, metabolism, and molecular biology)

UNIT -II: BIOMOLECULES

- ❖ Carbohydrates
- ❖ Proteins
- ❖ Lipids
- ❖ Nucleic acids
- ❖ Vitamins and
- ❖ Minerals.

Course outcome: Biomolecular Sciences majors will be able to demonstrate foundational knowledge in Biomolecular science, including an understanding of:

- ❖ The relationship between the properties of macromolecules and cellular activities.
- ❖ The relationship between cellular activities and biological responses.
- ❖ Cell metabolism, chemical composition, physiochemical and functional organization of organelles.

UNIT -III: HEMATOLOGY

Composition and general functions of blood. Structure and functions of Hemoglobin. Normal values of Blood constituents.

Course outcome:

- ❖ Understand red cell disorders
- ❖ Understand both established information and recent clinical advances in coagulopathies, anticoagulant and thrombolytic therapies
- ❖ Understand blood and marrow morphology and hematopathology

- ❖ Understand both established information and recent clinical advances in immunohematology, bone marrow transplantation, and hematopoietic growth factors.

UNIT -IV: : IMMUNOLOGY AND PHYSIOLOGY

Antigen, Antibody, Immunity-Immune cells, Types of Immunity.

Human organs- Heart, lungs, Brain, Kidney & Liver

Course outcome:

- ❖ This course gives an overview on the immune system including organs, cells and receptors
- ❖ The students learn about molecular basis of antigen recognition, hypersensitivity reaction, antigen-antibody reactions
- ❖ The course develops in the student an appreciation for principles of immunology and its applications in treating human diseases
- ❖ The paper covers the working of internal organ and system.
- ❖ The students will be exposed to anatomy of different organs
- ❖ Paper helps the students to understand the physiological functions of the biological systems

UNIT -V: JOB OPPORTUNITIES IN BIOCHEMISTRY

Values of Higher education for job opportunities. Biotechnologist, Research Scientist, Clinical Scientist, Research Associates, Biomedical Scientist, Pharmacologist and Laboratory Technician.

Course outcome:

Expose the students to a wide range of careers that combine biology, plants and medicine.

- ❖ Develop as independent thinkers who are responsible for their own learning
- ❖ Develop transferable quantitative skills
- ❖ Be able to work with others demonstrating leadership and collaborative skills
- ❖ Apply modern instrumentation theory and practice to biochemical problems
- ❖ Recognize potential laboratory safety concerns and address them using appropriate techniques
- ❖ Produce scientific reports formatted for peer-reviewed publication, using the primary literature
- ❖ Present the results, conclusions, and relevance of scientific experiments to a specific audience

H. M. J.
HOB 18/7/22

H. M. J.
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for Women
Vanivambadi - 635 751



**Marudhar Kesari Jain College for Women,
Vaniyambadi – 635 75**
PG & Research Department of Biochemistry
Academic year 2022-2023
Bridge Course -Time Table

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Date

Day order/Hour	1	2	3	4	5
I	Major (Dr.M.Charumathy)	English	Major (Dr.M.Punithavathi)	Communicative English	Skill
II	Major (R.Malarkodi)	English	Major (Dr.M.Charumathy)	Communicative English	Skill
III	Major (M.Renuka)	English	Major (Dr.M.Charumathy)	Communicative English	Skill
IV	Major (R.Malarkodi)	English	Major (Dr.V.Devi)	Communicative English	Skill
V	Major (M.Renuka)	English	Major (Dr.M.Punithavathi)	Communicative English	Skill
VI	Major (Dr.V.Devi)	English	Major (R.Malarkodi)	Communicative English	Skill

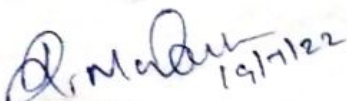
R. Manjula
HOD 19/7/21

TEACHING METHODOLOGY:

Traditional Blackboard, Power point presentation, Group Discussion, Demonstration, Team Exercise and Short Video

SUBJECT ALLOCATION

S. No	Unit	Faculty Name
1	Unit - I	Ms.R.Malarkodi
2	Unit - II	Ms.R.Malarkodi
3	Unit - III	Dr.M.Charumathy
4	Unit - IV	Ms.M.Renuka
5	Unit - V	Ms.M.Renuka

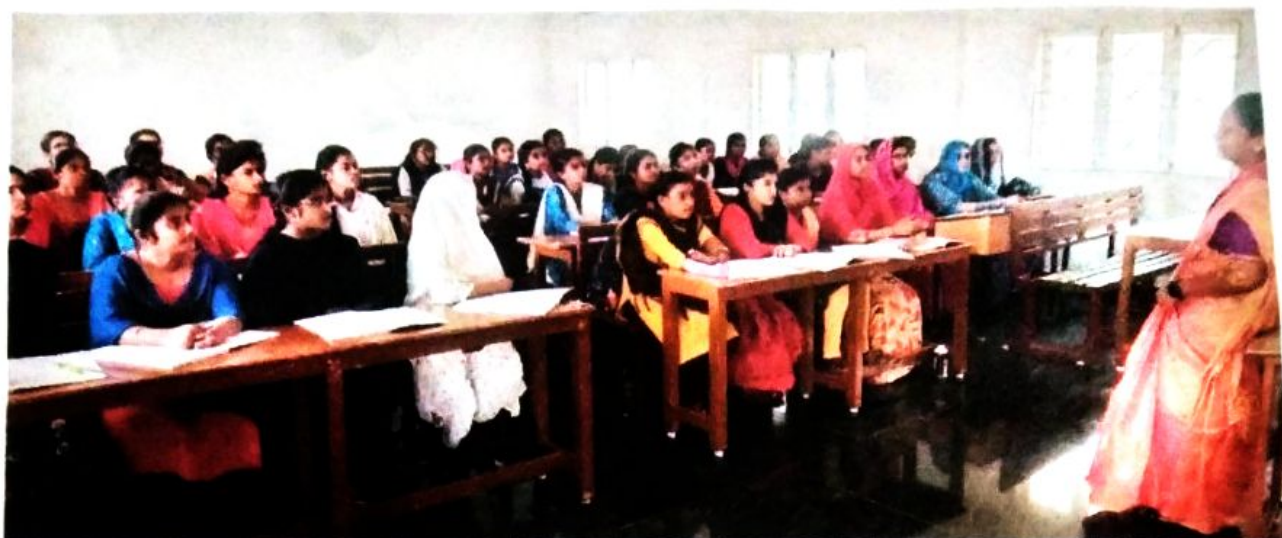

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MARUDHAR KESARI JAIN COLLEGE FOR WOMEN
DEPARTMENT OF BIOCHEMISTRY
BRIDGE COURSE PHOTOS 2022-2023

29 Years
of Educational
Excellence...



GPS MAP CAMERA

Latitude: 12.639323

Longitude: 78.6046716

Date: 26 Jul 2022

Time: 10:11 AM



P. Manel
HOD 19/7/22

M. Manel
PRINCIPAL

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BRIDGE COURSE ATTENDANCE 2022-2023

DEPARTMENT : BIOCHEMISTRY
ACADEMIC YEAR : 2022-2023
CLASS : I BSC BIOCHEMISTRY
COURSE NAME : CAREER PERSPECTIVES OF BIOCHEMISTRY

S.NO	NAME OF THE STUDENTS	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
1	ABINAYAR	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
2	ANUSHTAS	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
3	ARCHANA A	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
4	ASFIYA-AMREEN N	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
5	BOOMIKA K	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
6	CHARULATHA M	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
7	DEEPIKA M	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
8	GAYATHRI M	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
9	GOKULAPRIYA G	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
10	GOWTHAMI R	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
11	HEMA PRIYANKA B	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
12	HEMAVATHI V	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
13	JERA MAHEEN K	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
14	JANANI J	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
15	KARTHIKA GK	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
16	KAVISRI T	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
17	KEERTHANA S	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
18	KRISHIKA G	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
19	MADHUMITHA C	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
20	MADHUMITHA L	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022
21	MADHUMITHA S	25.07.2022	26.07.2022	27.07.2022	28.07.2022	29.07.2022	30.07.2022	02.08.2022	04.08.2022	05.08.2022	06.08.2022



Marudhar Kesari Jain College for Women,
Vaniyambadi
Bridge Course Feedback

30
Years
of Educational
Excellence

Department : Biochemistry
Academic Year :2022-2023
Class: I B.Sc.Biochemistry
Course Name: Career Aspects in Biochemistry

S.No	Name of the Student	Feedback
1	Nikhat Fathima. P. A	As we experienced pandemic, we lost most of topics in school. Bridge course helps to learn more things.
2	Iqra Maheen. K.	In bridge course classes, we went to know about our course deeply. We learned basics of our subject early.
3	Shafiya Samreen. A	Joyful interactions and activities have refreshed us for the new academic year.
4	Meenakehi. H	Bridge Course session helps us to gain more valuable topics.
5	Karthika. G. K.	It helped me to know the basics of my subject.
6	Kavishi. T	In Bridge Course Session we learned how to communicate in formal way with others.
7	Madhumitha. Z	It was very useful in revising the subject related topic in our subjects.
8	Prityanka. S	It gives us the appropriate benefit in learning.
9	Shwetha. R. U	We learn basics of our subject early.
10	G. Gopala Princy	This enough related time helped me to adjust with the new environment.

P. Mammik
HOD 19/7/22

M. [Signature]
PRINCIPAL 19/7/22

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