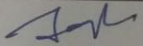
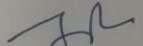
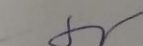
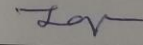
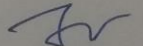
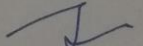
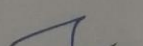
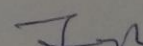
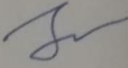
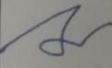
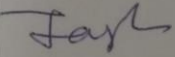
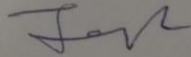


2017-2018 (Sem II, IV and VI)

Department of Biochemistry
Shivaji Collage
Syllabus completed month wise Jan- April 2018

Name of the Teachers: Dr Jayita Thakur

| Genetic Engineering and Biotechnology Semester VI (28/60 hours) | | | |
|---|---|---------------------------------------|---|
| Month | Topics Proposed | Topics Completed | Signature |
| January | Unit 6 Polymerase chain reaction | Unit 6 completed |  |
| February | Unit 7 DNA sequencing Unit 8 Expression of cloned genes | Unit 7 Completed Unit 8 Started |  |
| March | Unit 8 Expression of cloned genes Unit 9 Applications of genetic engineering in Biotechnology | Unit 8 Completed Unit 9 Started |  |
| April | Unit 9 Applications of genetic engineering in Biotechnology | Unit 9 Completed |  |
| Proteins Semester -II (30/60 hours) | | | |
| January | Unit 2 Extraction of proteins for downstream processing Unit 3 Separation techniques | Unit 2 Completed Unit 3 Started |  |
| February | Unit 3 Separation techniques Unit 7 Protein folding and conformational diseases | Unit 3 Completed Unit 7 Completed |  |
| March | Unit 8 Introduction to protein structure databases Unit 9 Myoglobin and haemoglobin | Unit 8 Completed Unit 9 Started |  |
| April | Unit 9 Myoglobin and haemoglobin Unit 10 Specialized proteins - antibodies and actin-myosin motors | Unit 9 Completed Unit 10 Completed |  |

| Immunology Semester VI (60/60 hours) | | | |
|---|--|--|---|
| Month | Topics Proposed | Topics Completed | Signature |
| January | Unit 1 Cells and organs of the immune system Unit 2 Innate immunity and leukocyte extravasation Unit 3 Immunogens and antigens | Unit 1 & 2 completed Unit 3 started |  |
| February | Unit 4 Antibody structure and function Unit 5 Generation of receptor diversity Unit 6 Biology of the B lymphocyte | Unit 3,4, 5 & 6 Completed |  |
| March | Unit 7 Complement system Unit 8 MHC complex and antigen presentation Unit 9 Biology of the T lymphocyte | Unit 7 & 8 Completed Unit 9 Started |  |
| April | Unit 10 Cell mediated cytotoxic responses Unit 11 Tolerance, autoimmunity and hypersensitivity Unit 12 Transplantation immunology and vaccines | Unit 9, 10, 11 & 12 Completed |  |

Department of Biochemistry
Shivaji Collage
Syllabus completed month wise Jan- April 2018

Name of the Teachers: Dr Rashmi Wardhan

| Genetic Engineering and Biotechnology / Semester VI (half paper shared) | | | |
|---|---|------------------------|-----------|
| Month | Topics Proposed | Topics Completed | Signature |
| January | Introduction to DNA technology (Unit 1 and 2) | Unit 1 and 2 Completed | Rwardhan |
| February | Gene Cloning of vectors in prokaryotes (unit 2) | Unit 2 Completed | Rwardhan |
| March | Cloning of genes in eukaryotes (unit 3) | Unit 3 Completed | Rwardhan |
| April | Joining of DNA fragments, various enzymes(unit 3 and 4) | Unit 3 and 4 Completed | Rwardhan |
| May | Insertional inactivation, methods for gene cloning identification (unit 5) | Unit 5 Completed | Rwardhan |
| Gene organization replication and repair / Semester -IV | | | |
| January | Structure of DNA, genes and gene organization (unit 1) | Unit 1 Completed | Rwardhan |
| February | Nucleosomes, assembly, structure and organization (unit 1 and 2) | Unit 1 and 2 Completed | Rwardhan |
| March | Replication of DNA, chemistry, various modes of replication (unit 2 and 3) | Unit 2 and 3 Completed | Rwardhan |
| April | Recombination and transposition (unit 4) | Unit 4 Completed | Rwardhan |
| May | Mutations, repair and types (unit 5) and revision of syllabus | Unit 5 Completed | Rwardhan |

Department of Biochemistry
 Shivaji Collage
 Teaching Plan, Jan- April 2018

Name of the Teachers: Dr Renu Baweja

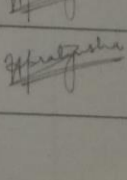
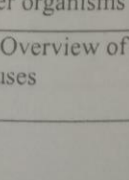
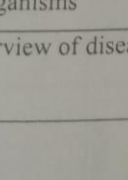
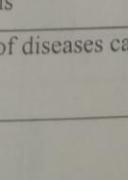
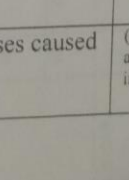
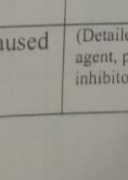
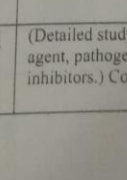
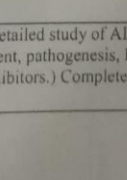
| Nutritional Biochemistry Semester VI (Shared) | | | | |
|---|-----------------|---|-----------------------|-----------|
| Month | Unit | Topics Proposed | Topics Completed | Signature |
| January | Unit 5 | Introduction to vitamins. RDA. Introduction to fat soluble vitamins. Hypervitaminosis. Structure and Function of Vitamin A and Vitamin D. | Completed as proposed | Renu |
| February | Unit 5 | Structure and Function of Vitamin K and E. Introduction to water soluble vitamins. Structure and function of Vitamin B complex | Completed as proposed | Renu |
| March | Unit 5 & Unit 3 | Structure and function of Vitamin C, folic acid and Vitamin B12. Introduction to lipids. | Completed as proposed | Renu |
| April | Unit 3 | EFA, MUFA, PUFA, SFA, Omega 3 and Omega 6 Fatty acid. Role of saturated fats, TAG, Cholesterol and Lipoproteins. Lipotropic factors. Dietary implications of fats and oils. | Completed as proposed | Renu |

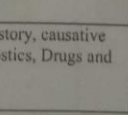
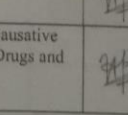
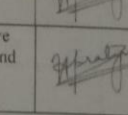
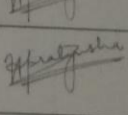
| Human Physiology Semester IV (Shared) | | | | |
|---|--------|---|-----------------------|-----------|
| Month | Unit | Topics Proposed | Topics Completed | Signature |
| January | Unit 1 | Body fluid compartments, Homeostasis, Plasma, RBCs and molecular mechanisms of blood coagulation | Completed as proposed | Renu |
| February | Unit 1 | Role of Vitamin K in Clotting, anticoagulant and fibrinolytic system. Anemia, polycythemia, hemophilia and thrombosis | Completed as proposed | Renu |
| March | Unit 3 | Mechanism of Respiration. Principles of gas exchange and transport. | Completed as proposed | Renu |
| April | Unit 3 | Regulation of respiration, Disorders of respiration | Completed as proposed | Renu |

Proteins
Semester II (Shared)

| Month | Unit | Topics Proposed | Topics Completed | Signature |
|----------|-------------------|--|-----------------------|------------|
| January | Unit 1 | Introduction to amino acids, peptides and proteins | Completed as proposed | <i>Rav</i> |
| February | Unit 5 | Covalent structures of proteins | Completed as proposed | <i>Rav</i> |
| March | Unit 6 | Three Dimensional structures of Proteins | Completed as proposed | <i>Rav</i> |
| April | Unit 4 Unit 11 | Characterization of Proteins Membrane Proteins | Completed as proposed | <i>Rav</i> |

Department of Biochemistry
Shivaji Collage
Syllabus completed month wise Jan- April 2018
Name of the Teacher: Dr V. A. Pratyusha

| Enzymes Semester II | | | |
|--|---|---|---|
| Month | Topics Proposed | Topics Completed | Signature |
| January | Unit 1 Introduction to enzymes Unit 2 Features of enzyme catalysis Unit 3 Enzyme kinetics Unit 4 Bisubstrate reactions | Unit 1-4 Completed (by Dr. Ritika Grover) |  |
| February | Unit 5 Enzyme inhibition Unit 6 Mechanism of action of enzymes | Unit 5 Completed |  |
| March | Unit 6 Mechanism of action of enzymes Unit 7 Regulation of enzyme activity | Unit 6 and 7 Completed |  |
| April | Unit 8 Involvement of coenzymes in enzyme catalysed reactions Unit 9 Applications of enzymes | Unit 8 and 9 Completed |  |
| SEC-2 Protein Purification Techniques / Semester -IV | | | |
| January | Unit 1 Preparation of the sample. | Unit 1 started by Dr. Ritika Grover |  |
| February | Ion-exchange chromatography. Gel filtration chromatography. | |  |
| March | Affinity chromatography. Electrophoresis. | Unit 1 Completed |  |
| April | Unit 2 Demonstration of High Performance Liquid Chromatography (HPLC) | Unit 2 Completed |  |

| MOLECULAR BASIS OF INFECTIOUS DISEASES Semester VI (half paper shared) | | | |
|--|---|--|---|
| Month | Topics Proposed | Topics Completed | Signature |
| January | Unit 2 Overview of diseases caused by bacteria | Unit 2 started by Dr. Ritika Grover) |  |
| February | Unit 2 Overview of diseases caused by bacteria | Unit 2 Completed |  |
| March | Unit 5 Overview of diseases caused by other organisms | Unit 5 Completed |  |
| April | Unit 3 Overview of diseases caused by Viruses | (Detailed study of AIDS, history, causative agent, pathogenesis, Diagnostics, Drugs and inhibitors.) Completed |  |

Department of Biochemistry
Shivaji Collage
Syllabus Completed Month Wise Jan- April 2018

Name of the Teachers: Dr Nidhi Chaudhary

| Molecular Basis Of Infectious Diseases / Semester VI (half paper shared) | | | |
|---|---|------------------------|------------------------|
| Month | Topics Proposed | Topics Completed | Signature |
| January | Unit 1- Classification of infectious agents | Unit 1 Continued | <i>Nidhi Chaudhary</i> |
| February | Unit 1- Classification of infectious agents Unit 3- Overview of diseases caused by Viruses | Unit 1 Completed | <i>Nidhi Chaudhary</i> |
| March | Unit - Overview of diseases caused by Viruses Unit 4- Overview of diseases caused by Parasites | Unit 3 Completed | <i>Nidhi Chaudhary</i> |
| April | Unit 4- Overview of diseases caused by Parasites | Unit 4 Completed | <i>Nidhi Chaudhary</i> |
| Metabolism Of Amino Acids And Nucleotides /Semester -IV(half paper shared) | | | |
| January | Unit 1 -Overview of amino acid metabolism | Unit 1 Completed | <i>Nidhi Chaudhary</i> |
| February | Unit 2- Catabolism of amino acids | Unit 2 Completed | <i>Nidhi Chaudhary</i> |
| March | Unit 3 - Biosynthesis of amino acids Unit 4 - Precursor functions of amino acids | Unit 3 Completed | <i>Nidhi Chaudhary</i> |
| April | Unit 4 - Precursor functions of amino acids Unit 8 - Integration of metabolism | Unit 4 and 8 Completed | <i>Nidhi Chaudhary</i> |

2018-2019 (Sem I, III and V)

Teaching Plan for the Academic Year:

Department :

| S.No. | Name of the Teacher | Name of the Paper | Class/Semester | Month | Topics/Units Planned & covered | Covered |
|----------|--|---|---|-----------------|--|------------------------|
| 1 | Dr. NEENA R. WADEHRA | Molecules of Life Full paper Advanced cell Biology | SEM-I SEM-V | July | Unit I, Unit 3, Unit 5 - Molecules of life | covered in time |
| | | | | Aug | Unit 5 - Cell cycle - overview & regulation | covered in time |
| | | | | Sept | Unit 4 - Lipids, Unit 6 - Nucleic acids | covered in time |
| | | Oct/Nov | Unit 7 - Vitamins, Unit 2 - water and unit 1 - revision | covered in time | | |
| | | Advanced cell biology Unit 5 and 6 | Sem V | July/Aug | Unit 5 - cell cycle - overview & regulation | covered in time |
| | | | | Sept | Unit 5 - mitosis - events, cytokinesis Meiosis - events, fertilization. Regulation of cell division/cell growth. | covered in time |
| Oct/Nov | Apoptosis, necrosis, stem cells, membrane of adult tissue, homeostasis, embryonic stem cells, therapy Unit 10 - cancer biology | | | covered in time | | |
| 2 | Dr. Rashmi WARDHAN | Metabolism of Carbohydrate & Lipids | Sem III | July | Basal design unit 1, unit 2 (half) | Reviewed |
| | | | | Aug. | unit - 3 (1/2), unit 5 | course covered in time |
| | | | | Sept | unit 4 + 1/2 unit 5 | course covered in time |
| | | | | Oct/Nov | unit 6 & Revision of course | course covered in time |
| | | Gene Expression & Regulation | July Sem V | July | unit-1, unit 2 (half) | Reviewed |
| | | | | Aug | unit-2, unit 3 (continuation) unit 8 (1/2) | |
| Sept/Oct | unit 4, 5 + 6 | course covered in time | | | | |
| Nov | unit 7, 1/2 8 + Revision | Reviewed | | | | |

Teaching Plan for the Academic Year:

Department :

| S.No. | Name of the Teacher | Name of the Paper | Class/Semester | Month | Topics/Units Planned | Covered |
|-------|---------------------|---|----------------|-----------|--|--|
| 1 | Dr. Darshan Malik | Hormone; Biochemistry & Function. | III | July | Hormone mediated Signalling | Hormone mediated Signalling |
| | | | | August | Hormone mediated Signalling Thyroid hormone | Hormone mediated Signalling |
| | | | | September | Thyroid hormone Hormone regulatory Ca^{2+} homeostasis | Thyroid hormone |
| | | | | October | Hormones of adrenals Reproductive hormones | Adrenals and reproductive hormones |
| | | | | November | Reproductive hormones Revision | Reproductive hormones |
| 2 | | membrane Anology & Bioenergetics | III | July | Introduction to Biomembrane Membrane structure | Intro to Biomembrane Membrane structure |
| | | | | August | membrane structure membrane dynamics Membr Transport | membrane structure membrane transport |
| | | | | September | Vesicular Transport & membrane fusion Intro to Bioenergetics, Oxidative phosphorylation | oxidative phosphorylation |
| | | | | October | Oxidative phosphorylation Photo Phosphorylation | Photo Phosphorylation |
| | | | | November | Photo Phosphorylation | |

Given receiving Received on 05/09/2018
In cell 4/9/2018

Shivaji College
Teaching Plan for the academic year 2018-19 (July-November)
Department: Biochemistry

Refresher Course in Life Sciences
attended till 7th Aug 2018.

| S. No. | Name of the teacher | Paper | Semester | Month | Units Planned | Units Covered | |
|--------|--|--|----------|-----------|---------------|---|----|
| 4. | Dr. Jayita Thakur (was on leave for refresher course, re-joined on 7 th August 2018) | Cell Biology | | August | 1 | Finished 1 started 2 | JL |
| | | | | September | 2 | Finished 2 | JL |
| | | | | October | 5 | Finished 5 | JL |
| | | | | November | | | |
| | | Metabolism of carbohydrates and lipids | | August | 7 | 7 (3/4) | JL |
| | | | | September | 8,9 | 7 (1/4), 8, 9 started | JL |
| | | | | October | 9,10 | 9 th contd, 10 th started (3/4) | JL |
| | | | | November | 11 | 10, 11 completed | JL |
| | | Concepts in Genetics | | August | 1, 2, 3, 7 | 1, 2, 3, 7 | JL |
| | | | | September | 4, 6, 8, 10 | 4, 6, 8, 10 | JL |
| | | | | October | 4, 5, 9, 11 | 5, 9, 11 | JL |
| | | | | November | 11, 12 | 12 | JL |

Teaching Plan for the Academic Year:

Department: **BIOCHEMISTRY**

| S.No. | Name of the Teacher | Name of the Paper | Class/Semester | Month | Topics/Units Planned | Covered |
|-------|---------------------|---|--|------------|---|----------------------------|
| 1 | Dr. Renu Bawaje | Hormone : Biochemistry & Function | BScCH Biochemistry II year, III Sem | July - Aug | Unit-1 : Introduction to endocrinology | Completed |
| | | | | Aug - Sept | Unit-2 : Hypothalamus & Pituitary hormones | Continued |
| | | | | Sept - Oct | Pancreatic & GI tract hormones & hormones of thyroid | Res. 25/10/18 |
| | | | | Oct - Nov | Growth factors. | |
| | | | | Nov | | |
| 2 | DR. SUNITA SINGH | Basic Microbiology | BScCH Biochemistry III year, IV Sem | July - Aug | Unit-1 : History of development of microbiology | Completed Res. |
| | | | | Aug - Sep | Unit-2 : Diversity of microbial world | Continued |
| | | | | Sept - Oct | Unit-3 : Viruses, viroids, prions, viroplasm | Res. 25/10/18 |
| | | | | Oct - Nov | Unit-3 : Viruses | |
| | | | | Nov | | |
| 2 | DR. SUNITA SINGH | IEC-1 Tools & Techniques in Biochemistry | BSc(4) BIOCHEM. II year SEM-III | JULY | UNIT-3 (Virtual Lab on Biochem) | UNIT-3 Completed 25/10/18 |
| | | | | AUGUST | UNIT-2 (Spectrophotometric techniques) | UNIT-2 Contd |
| | | | | SEPT. | UNIT-1 - (Biochemical Reagents & solutions) | Completed 25/10/18 |
| | | | | OCT. | UNIT-2. (Spectrophotometric) | Completed 25/10/18 |
| | | | | NOV. | | |
| 2 | DR. SUNITA SINGH | Advanced Cell Biology | BSc(4) BIOCHEM. II year SEM-IV | JULY | UNIT-1 - Plasma Membrane & Nuclear Transport | UNIT-1 Complete |
| | | | | AUGUST | UNIT-2 Protein folding & signaling pathways | UNIT-2 Continued |
| | | | | SEPT. | UNIT-3 - cytoskeleton metabolism & completion in time | Completed 25/10/18 |
| | | | | OCT. | UNIT-4 & 5 Cell-Cell Interaction & Advanced Membrane Cell Biology | Completed in time 25/10/18 |
| | | | | NOV. | | |

2018-2019 (Sem II, IV and VI)

DEPARTMENT

| S. No. | Name of the teacher | Name of the paper | Class/Semester | Month | Topics/Units planned | Covered |
|----------|---------------------|-----------------------|------------------|--|--|---------------------------------|
| | Dr. Neena R. Wadhwa | Enzymes Immunology | Sem II Sem VI | January | Sem II - Unit I, 2 Sem VI - Unit 8, unit 3. | covered as planned <i>RW</i> |
| February | | | | Sem II - unit 2, 3, 5 Sem VI - unit 2, unit 4, 5, 6 | covered as planned <i>RW</i> | |
| March | | | | Sem II - unit 3, 4 Sem VI - unit 7, 8, 9, 10 | covered as planned <i>RW</i> | |
| April | | | | Sem II - unit 4, 5 Sem VI - unit 10, 11, 12 | covered as planned <i>RW</i> | |

Ravale
05/02/2019

DEPARTMENT

| S. No. | Name of the teacher | Name of the paper | Class/Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|-------------------|-----------------------------------|-------|---|--------------------------|
| 1. | R. Rachmi Wadhwa | GORR | B.Sc(H) Biochemistry Sem IV | Jan | DNA Replication in Prokaryotes / Eukaryotes | completed <i>RWadhwa</i> |
| | | | | Feb | Supercoiling, Topoisomerase, Recombination, Transposon | |
| | | | | March | Three classes of Transposable elements, importance of Transposable elements, Horizontal Gene Transfer | completed <i>RWadhwa</i> |
| 2. | | GEB | B.Sc(H) Sem VI | Jan | Introduction to GEB, Cloning Vectors for Prokaryotes + Eukaryotes | completed <i>RWadhwa</i> |
| | | | | Feb | unit-3, unit-6, unit-7 | |
| | | | | March | unit-8, unit-5 | |
| | | | | April | unit-9 + revision | completed <i>RW</i> |

DEPARTMENT

| S. No. | Name of the teacher | Name of the paper | Class/Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|--------------------------|---------------------------------------|-------|---|-------------------------|
| 1. | Dr. Darshan Malik | Human Physiology | BSc(H) II nd yr Sem IV | Jan | Sem IV - Units: ①, ② & ⑤ | Units ①, ② & ⑤ |
| | | | | Feb. | Sem IV units: ③, ④ & ⑤ Sem VI units: ① & ③ | Unit - 3, 4, 5 ① & ② |
| 2. | Dr. Darshan Malik | Nutritional Biochemistry | BSc(H) III rd yr Sem VI | March | Sem IV units: ⑥, ⑦ Sem VI unit ⑧ | Unit 6, 7, 8 |
| | | | | April | Sem IV unit: ⑧ & revision Sem VI Revision & paper solution | Unit 8 & revision |
| | | | | | | |

Malik

DEPARTMENT

| S. No. | Name of the teacher | Name of the paper | Class/Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|-------------------|----------------|-------|---|--------------------------------|
| 1. | Dr. Jayla Shaker | Proteins | II | Jan | 1, 2, 3, 6 | 1, 2, 3, 4 |
| | | | | Feb | 5, 6, 8 | 5, 6, 8 started |
| | | | | March | 7, 9 (Attending orientation & Prog. 5-29 th March) | 8 (till 5 th March) |
| | | | | April | 9, 10, 11 | Completed |

Received on 11/03/2019

Jayla Shaker

DEPARTMENT BIOCHEMISTRY

| S. No. | Name of the teacher | Name of the paper | Class/Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|--------------------------|----------------|-------|--|-------------------------|
| | Ms. Usha Yadav | ENZYMES | II | JAN | UNIT 6 - Mechanism of action of enzymes | UNIT 6 & UNIT 7 (half) |
| | | GORR | IV | | UNIT 7 - Regulation of enzyme activity (All glycoch phosphoconp) | |
| | | Nutritional Biochemistry | VI | | UNIT 4 & UNIT 2 (half syllabus) | |
| | | ENZYMES | II | FEB | UNIT 5 - Fat & water soluble vitamins | Both covered as planned |
| | | GORR | IV | | UNIT 7 - Antibiotic change to drug | |
| | | Nutritional Biochemistry | VI | | UNIT 8 - Importance of coenzymes in enzyme catalyzed reactions | |
| | | ENZYMES | II | MARCH | UNIT 2 (left portion) + UNIT 5 (subpart) | Covered as planned |
| | | GORR | IV | | UNIT - 6 Minerals | |
| | | Nutritional Biochemistry | VI | | UNIT 9 - Application of enzymes (All acid phosphatase) | |
| | | ENZYMES | II | APRIL | UNIT 6 - Various modes of DNA repair (All nucleotide excision repair) | Covered as planned |
| | | GORR | IV | | UNIT 3 - diet, lipid & health (All triglycerides) | |
| | | Nutritional Biochemistry | VI | | UNIT 9 - Application of enzymes (enzyme immunoassay, all diagnostic enzymes) | |
| | | | | | UNIT 6 - Recombination repair, trans lesion DNA repair | Covered as planned |
| | | | | | UNIT 3 - Diet, lipid & health (all lipids) | |

Usha 5/2/19

Usha

Usha

Usha

Usha 5/2/19

2019-2020 (Sem I, III and V)

DEPARTMENT Biochemistry

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|--|--------------------|----------------|---|----------|
| | Dr. Neena R. Wadhwa | Advanced cell Biology $\frac{1}{2}$ paper (unit 3, 4, 5) | VI | July August | Unit 3 - Cytoskeleton and cell motility | Covered |
| | | | | Sept | Unit 4 - cell-cell interaction | proposed |
| | | | | October | Unit 5 - Cell cycle eukaryotic, events of mitosis, meiosis, regulation | proposed |
| | | | | November | Unit 5 - cell cycle cell growth, apoptosis, necrosis, stem cells, Homeostasis | proposed |

N. Wadhwa
27/08/2019

DEPARTMENT - Biochemistry

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|-------------------|--------------------|-------------|--|-----------|
| | Dr. Neena R. Wadhwa | Molecules of Life | I | July Aug | Unit I - foundation of Biochemistry Unit II - Amino acid structure and classification | completed |
| | | | | Aug | Unit I - Amino acid physical, optical and chemical properties Unit III - Carbohydrates properties | completed |
| | | | | Sept | Unit III - Carbohydrates - reactions Unit IV - Lipids - structure | proposed |
| | | | | Oct | Unit V - Nucleic acids | proposed |
| | | | | Nov | Unit VI - Vitamins | proposed |

N. Wadhwa
27/08/2019

DEPARTMENT of Biochemistry

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|----------------------------------|-----------------------------------|-----------------------------------|-------|---------------------------------|------------------------|
| 1. | Dr. Rashmi Wadhwa Asst. Prof. | Gene Expression and Regulation | IV Sem B.Sc(H) Biochemistry | July | unit I 1/2 | completed R. Wadhwa |
| | | | | Aug | unit I 1/2 unit II, + 3(1/2) | |
| | | | | Sept. | unit 3, unit 4 (1/2) | Proposed R. |
| | | | | Oct. | unit 5 + unit 6 | |
| Nov | unit 7, unit 8 | Proposed R. | | | | |

R. Wadhwa
Dr. Rashmi Wadhwa

DEPARTMENT of Biochemistry

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|---|-----------------------------------|--|-------------|--|---|
| 1. | Dr. Rashmi Wadhwa Associate Professor Biochemistry | Met. of Carbohydrates & Lipids | IV Sem III Sem B.Sc(H) Biochemistry | July | Introduction to Metabolism | completed R. W. |
| | | | | Aug | unit - I | |
| | | | | Aug sept | unit - I, unit II unit - III, unit IV | completed R. W. Proposed R. W. covered R. W. |
| | | | | Oct. Nov | unit 5 unit 6 | |

R. Wadhwa
Dr. Rashmi Wadhwa

DEPARTMENT BIOCHEMISTRY

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|------------------------------------|------------------------------|-------|----------------------------|----------------------------|
| 1. | Dr Darshan Malik | membrane Biology and Bioenergetics | BSc (H) Biochemistry Sem III | July | unit 1 | unit 1 |
| | | | | Aug | unit 1 unit 2 unit 3 | unit 1 unit 2 unit 3 |
| | | | | Sept. | unit 4 unit 5 | |
| | | | | Oct. | unit 6 unit 7 | |
| | | | | NOV | unit 8 | |

Darshan
13th Aug 2019

DEPARTMENT BIOCHEMISTRY

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|------------------------------------|------------------------------|--------|---|-------------------------|
| 2. | Dr Darshan Malik | Hormone: Biochemistry and Function | BSc (H) Biochemistry Sem III | July | Unit 2 - Part of Signalling | Part of it Completed |
| | | | | August | Unit 2 - Hormone mediated signalling | Unit -2 Part of Unit -3 |
| | | | | Sept. | Unit 3 - Part of it Unit 4 - Unit 5 | |
| | | | | Oct. | Unit 6 - Unit 7 - Unit 8 - Part of it | |
| | | | | Nov. | Unit 8 Unit 9 | |

Darshan
13th Aug 2019

DEPARTMENT

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|----------------------|-------------------|--------------------|-------|----------------------|---|
| 2. | Dr. Jayita Sharma | Cell Biology | I | July | UNIT 1 | UNIT 1 started <i>IT</i> |
| | | | | Aug. | UNIT 1 2 | UNIT 1 finished UNIT 2 started <i>IT</i> |
| | | | | Sept. | UNIT 2 6 | |
| | | | | Oct. | UNIT 6 | |

Jayita Sharma
28/08/19

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|--|-------------------------|------------------------|---|------------------------|
| 01 | Dr. Renu Bawja | Basic Microbiology (4 lectures/week) | V | July - Aug. | Unit 1 - Unit 2 Unit 3 → An introduction to viruses | covered as planned |
| | | | | Aug - Sept Oct → | Unit 3 - Unit 5 Unit 6 - Unit 7 | covered as planned |
| | | | | NOV | Revision | finish date |
| | | | | July-Aug sept-Oct | Unit 1 Unit 2 & Unit 9 | covered as planned. |
| 02 | | Homones: Biochemistry & Functions | III (10/12/13/14/15) | July-Aug sept-Oct | Unit 1 Unit 2 & Unit 9 | covered as planned. |

Renu
19/8/19

TEACHING PLAN FOR THE ACADEMIC YEAR (Semester July-Dec, 2019)
Department of Biochemistry

| S.No. | Name of the Teacher | Name of the Paper | Class/ Semester | Month | Topics/Units Planned | Covered |
|-------|---------------------|---|--|-----------|---|-----------|
| 1 | Dr.Sunita Singh | BCH DSE 6: Advanced Cell Biology | B.Sc. (Hons.) Biochemistry -3 rd Year (SEM V) | July | Unit 1: Plasma Membrane & Nuclear Transport | Continued |
| | | | | August | Unit 1: Plasma Membrane & Nuclear Transport Unit 6: Cancer Biology | Completed |
| | | | | September | Unit 6: Cancer Biology Class Test /Assignment Unit 2: Protein Sorting and Secretory Pathway | --- |
| | | | | October | Unit 2: Protein Sorting and Secretory Pathway Class Test/ Assignment Unit 7: Advanced Methods in Cell Biology | --- |
| | | | | November | Revision | --- |
| 2 | Dr.Sunita Singh | BCH SEC-1: Tools and Techniques in Biochemistry | B.Sc. (Hons.) Biochemistry -2 nd Year (SEM III) | July | Unit 1: Biochemical Reagents and solutions | Continued |
| | | | | August | Unit 1: Biochemical Reagents and solutions Unit 2: Spectrophotometric Techniques | Completed |
| | | | | September | Unit 2: Spectrophotometric Techniques Class Test/ Assignment | Continued |
| | | | | October | Unit 3: Introduction and Importance of Virtual Labs in Biochemistry Class Test/ Assignment | --- |
| | | | | November | Revision | --- |

* Attending 24th Refresher Course in Life Sciences & Biotechnology at UGC-HRDC, Jawaharlal Nehru University from August 19-30, 2019.

Sunita

Department of BIOCHEMISTRY

| Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|---------------------|--------------------------------------|-------------------------------|-------|---|-----------|
| Dr. Usha Yadav | Metabolism of Carbohydrates & Lipids | II nd year Sem III | July | Unit 7 (Digestion, respiration & transport of cholesterol & TAGs) | Completed |
| | | | Aug | Unit 7 - left portion | Completed |
| | | | Sept | Unit 8 - complete | Completed |
| | | | Oct | Unit 9 - half Unit 10 | Completed |
| | | | Nov. | Unit 11 | Completed |

Usha

2019-2020 (Sem II, IV and VI)

Sem. IV & VI

TEACHING PLAN FOR THE ACADEMIC YEAR: 2019 2020 - 2020. Dr. Rashmi Wardhan

DEPARTMENT of ~~Bio~~ Biochemistry

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|--|--------------------|-------|---|-----------------------|
| 1. | Dr Rashmi Wardhan | Gene organization replication & repair (GDRR) (Full Paper) | <u>IV</u> | Jan | unit 1. Str of DNA unit 2. Genes & Genes organization | completed Rwardhan |
| | | | | Feb | unit 3. Replication of DNA unit 4. Recombination | completed Rwardhan |
| | | | | March | unit 4. Transposition unit 5. Mol. basis of Mutation | containing |
| | | | | April | unit 6. various modes of DNA repair & Revision | |
| 2. | Dr. Rashmi Wardhan | Genetic Engineering & Biotechnology (1/2 Paper) | <u>VI</u> | Jan | unit 1. Introduction to Recombinant DNA Technology | completed Rwardhan |
| | | | | Feb | unit 2. cloning vectors for Prokaryotes & Eukaryotes | completed Rwardhan |
| | | | | March | unit 3. joining of DNA fragments unit 4. Selection of Recombinants | |
| | | | | April | unit 4 - Selection & Revision of units | |

TEACHING PLAN FOR THE ACADEMIC YEAR: Dr. Darshan

DEPARTMENT

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|--------------------------|---|-------|--|-------------------------|
| 1. | Dr. Darshan Maithi | Human Physiology | BSc(H)II nd yr <u>IV</u> | Jan | Cardiovascular Physiology | Covered Unit - 2. |
| | | | | Feb | Cardiovascular Physiology, Renal | Covered Unit - 2 & 6 |
| | | | | March | Renal Physiology Musculoskeletal system | |
| | | | | April | Reproductive Physiology | |
| 2. | | Nutritional Biochemistry | BSc(H)III rd yr <u>VI</u> | Jan | unit - 1 unit - 2 | Covered unit 1 & 2 |
| | | | | Feb | unit - 3 unit - 7 | Covered unit 3 & 7 |
| | | | | March | unit - 4 unit - 5 | |
| | | | | April | unit - 6 | |

Maithi

TEACHING PLAN FOR THE ACADEMIC YEAR: Dr. Renu
 DEPARTMENT BIOCHEMISTRY

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered | | |
|--------|---------------------|-------------------|---------------------------------|-------------|----------------------|---------|--|--|
| 01 | Dr. Renu Baweja | Proteins | BScCH Biochemistry Sem II | Jan | Unit 1 | Unit 1 | | |
| | | | | Feb & March | Unit 2 | | | |
| | | | | April | Unit 3 | | | |
| | | | | | | | | |
| | | Human Physiology | BScCH Biochemistry Sem IV | Jan & Feb | Unit 1 | Unit 1 | | |
| | | | | March | Unit 3 (partial) | | | |
| | | | | April | Unit 3 and Unit 8 | | | |
| | | | | | | | | |

Rev.
(submitted on 4/3/2020)

TEACHING PLAN FOR THE ACADEMIC YEAR: JAN - MAY, 2020
 DEPARTMENT - BIOCHEMISTRY (Sem IV & VI)

| S. No. | Name of the teacher | Name of the paper | Class/ Semester | Month | Topics/Units planned | Covered |
|--------|---------------------|---|----------------------------------|-------|--|----------------|
| 1 | Dr. Usha Yadav | Protein purification techniques | III rd year Sem IV | JAN | UNIT 1 - Preparation of sample & Ion Exchange chromatography | Completed Usha |
| | | | | FEB | GPC & Affinity | Completed Usha |
| | | | | MAR | Electrophoresis | |
| 2 | Dr. Usha Yadav | Metabolism of Amino acids and Nucleotides | III rd year Sem IV | APR | UNIT 2 HPLC | |
| | | | | JAN | UNIT 1 | Completed Usha |
| | | | | FEB | UNIT 2 | Completed Usha |
| | | | | MAR | UNIT 3 | |
| 3 | Dr. Usha Yadav | Molecular Basis of Infectious Diseases | III rd year Sem VI | APR | UNIT 4 | |
| | | | | JAN | UNIT 1 and half UNIT 2 | Covered Usha |
| | | | | FEB | UNIT 2 (half) UNIT 4 (half) | Covered Usha |
| | | | | MAR | UNIT 3 & 4 (topics left) | |
| | | | | APR | UNIT 5 | |

Due to COVID-19 pandemic, syllabus was completed via online mode after mid semester break in March, 2020