

Vivekanand College Kolhapur (Autonomous) ①

Department of Biotechnology

Annual Teaching Plan


Academic Year: 2019-20 Semester: I, III, V Department: Biotechnology sub - Biotech (optional)


Subject: Biochemistry Course Title: Peep Basics of Biotechnology paper I

Name of the teacher: Ms. Nadaf Salama Harun

Term - June - Oct.

| Month ... <u>Oct. / June / July</u> | | | Module/Unit: | Sub-units planned |
|-------------------------------------|------------|-------|---|---|
| Lectures | Practicals | Total | | |
| 12 | 2 | 14 | 1] Basis of Biotechnology - Type, Properties - Carbohydrate (Sem I) | - Type, Properties, Biological role |
| 13 | 3 | 16 | 2] Enzymology - Sem III - UNIT I | - Basis of enzyme |
| 15 | 2 | 17 | 3] cell disruption - Sem (V) - Electrophoresis | - Intro ⁿ Protein Pur. Now |
| Month ... <u>Aug.</u> | | | Module/Unit: | Sub-units planned |
| Lectures | Practicals | Total | | |
| 8 | 2 | 10 | 1] Lipids - Sem I | (Lipid classification) Properties Lipid topic |
| 14 | 3 | 17 | 2] Enzyme - Sem III - Unit II | - Kinetics, control factors affecting |
| 15 | 4 | 19 | 3] centrifugation - Sem V | - Type, Basic principle Type of centrifuge |
| Month ... <u>Sept. / Oct.</u> | | | Module/Unit: | Sub-units planned |
| 8 | 4 | 12 | 1] Basis of Biotechnology - Paper II (Sem I) | - Microscopy - Spectrophotometry |
| 8 | 4 | 12 | 2] Immobilization Bioreactors (Sem III) | - Applied Principles |
| 14 | 3 | 17 | 3] Spectroscopy and chromatography (Sem V) | - Paper, Gel |


 Name and Signature of Teacher
Miss. Nadaf Salama Harun


 Name and Signature of HoD
Ms. Nadaf Salama Harun
Head
 Department of Biotechnology (Optional)
 Vivekanand College, Kolhapur (Autonomous)



Vivekanand College Kolhapur (Autonomous),
 Department of Biotechnology
 Subject- Biotechnology (optional)

Annual Teaching Plan

Academic Year: 2019-20 Semester: II, IV, VI Department: Biotechnology (opt)
 Subject: Biotechnology Course Title: Sem II. cell Biology
 Name of the teacher: Mrs. Nadaf S.H.

Term II (Dec - May)

| Month ... Dec - Jan ... | | | Module/Unit: | Sub-units planned |
|-------------------------|------------|-------|--|--|
| Lectures | Practicals | Total | Sem II - cell Biology genetics. | - Basic of cell theory |
| 6 | 3 | 9 | Sem IV - Immunology. Sem VI - cell metabolism Virology | Unit I defense mechanism - Unit II. cell - protein me. Introduction nucleic acid |
| 8 | 4 | 12 | | |
| 13 | 4 | 17 | | |
| Month ... Feb ... March | | | Module/Unit: | Sub-units planned |
| Lectures | Practicals | Total | Sem II - study of cell organelle | Mitochondria, chloroplast, Golgi |
| 8 | 4 | 12 | Sem IV - Immunology Sem VI - Unit II | Serological test - Carbohydrate lipid metabolism |
| 10 | 3 | 13 | | |
| 12 | 2 | 14 | | |
| Month ... April ... May | | | Module/Unit: | Sub-units planned |
| 8 | 2 | 10 | Sem II - cell organelle | remaining - cell cycle mitosis, |
| 8 | 0 | 08 | Sem IV - Immunology | |
| 12 | 0 | 12 | Sem VI - Virology | - Type - reproduction. |

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Vivekanand college, Kolhapur (Autonomous)

Department of Biotechnology

Subject - (Biotechnology optional)

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Annual Teaching Plan

Academic Year: 2019-20 Semester: I, III, V Department: Biotechnology (opt.)

Subject: Biotechnology Course Title: Mob Bio & PBT

Name of the teacher: Ms. M.D. Ulape Term: I - Dec - May

| Month Dec/Jan | | | Module/Unit: | Sub-units planned |
|-------------------|------------|-------|--|-------------------|
| Lectures | Practicals | Total | Sem I - Credit I Amino Acid & proteins | |
| 08 | 3 | 5 | III - Molecular Biology - Replication (Pro & En) | |
| 5 | 2 | 7 | V - Plant Biotechnology - Intro, Lab org | |
| 5 | 3 | 8 | Medica preparation | |
| Month Feb./March | | | Module/Unit: | Sub-units planned |
| Lectures | Practicals | Total | Sem I - Credit I Proteins | |
| 08 | 3 | 11 | II - Mol. Bio - Transcription (Pro & En) | |
| 5 | 2 | 7 | III - PBT - Culture, suspension, organ culture | |
| 3 | 2 | 5 | | |
| Month April - May | | | Module/Unit: | Sub-units planned |
| Lectures | Practicals | Total | Sem I - Proteins Revision & tests | |
| 05 | 4 | 9 | II - Mol. Bio - Translation (Pro & En) | |
| 5 | 1 | 6 | III - PBT - Rep. Hybridization, Embryogenesis, Application, Revision | |
| 7 | 4 | 11 | | |

M.D. Ulape

Name and Signature of Teacher

Miss. M.D. Ulape

Note: In the above format, for each month for each teacher.

Nadaf

Name and Signature of HOD

Ms. Nadaf Salama Horur

Head

Department of Biotechnology (Optional)
Vivekanand College, Kolhapur (Autonomous)



Vivekanand College, Kolhapur (Autonomous)
 Department of Biotechnology
 Subject - (Biotechnology optional)

Annual Teaching Plan

Academic Year: 2019-20 Semester: II, IV, VI Department: Biotechnology (Opt.)

Subject: Biotech Course Title: G.E & ATC

Name of the teacher: Ms. M.D. Ulape Term II - June - Oct

| Month .. June/July | | | Module/Unit: | Sub-units planned |
|------------------------------------|------------|-------|--|-------------------|
| Lectures | Practicals | Total | Sem II - Gen Engg. IV - Gen. Engg. - Enzymes, Role, Action, VI - ATC - Intro, Lab org, Media preparation | |
| 7 | 2 | 9 | | |
| 12 | 2 | 14 | | |
| Month .. Sept Aug | | | Module/Unit: | Sub-units planned |
| Lectures | Practicals | Total | IV - G.E - Tools in GE - PCR techniques - VI - ATC - Cultures, Applications | |
| 5 | 1 | 6 | | |
| 08 | 4 | 12 | | |
| Month .. Sept/Oct | | | Module/Unit: | Sub-units planned |
| 8 | 1 | 9 | IV - G.E - Blotting Techniques VI - ATC - Cell viability, sterility testing | |
| 10 | 2 | 12 | | |

M.D. Ulape

Name and Signature of Teacher

Ms. M.D. Ulape

Note: In the above format, for each month for each teacher.

Nadaf

Name and Signature of HOD

Ms. Nadaf Salama Harun

Head

Department of Biotechnology (Optional)
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Vivekanand College Kolhapur (Autonomous)

Department of Biotechnology

③

Sub - (Biotechnology optional)

Annual Teaching Plan

Academic Year: 2019-20 Semester: I, III, IV Department: Biotechnology (opt)

Subject: Biotechnology Course Title: Instrumentation, Fermentation technology

Name of the teacher: Ms. A. B. Sanmukh Term - Dec - May

| Month .. Dec./Jan | | | Module/Unit: | Sub-units planned |
|----------------------------|------------|-------|--|-------------------|
| Lectures | Practicals | Total | Sem - I credit II III - Molecular Biology Translation IV - Introduction - Fermentation Technology | |
| 5 | 2 | 8 | | |
| 5 | 2 | 7 | | |
| 10 | 3 | 13 | | |
| Month .. Feb./March | | | Module/Unit: | Sub-units planned |
| Lectures | Practicals | Total | Sem - I section II - Enzyme (basic concept) III - Gene regulation, lac operon IV - specific fermentation | |
| 7 | 3 | 10 | | |
| 8 | 2 | 10 | | |
| 9 | - | 09 | | |
| Month .. April / May | | | Module/Unit: | Sub-units planned |
| 9 | 2 | 11 | Sem I - U.V visible spectrophotometer III - DNA repair mechanism IV - IPR | |
| 5 | 3 | 08 | | |
| 10 | - | 10 | | |

(Signature)

Name and Signature of Teacher

Ms. A. B. Sanmukh

(Signature)

Name and Signature of HoD

Mr. Nadaf Salama Harun

Head

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Vivekanand college Kolhapur (Autonomous)

Department of Biotechnology ~~optional~~

Subject - (Biotechnology optional) (6)

Annual Teaching Plan

Academic Year: 2019-20 Semester: I, IV, VI Department: Biotechnology (opt)

Subject: Biotech Course Title: G.E., Bioinformatics, Gen. biotechnology

Name of the teacher: Ms. A. B. Saranmukh

| Month Jun, July | | | Module/Unit: | Sub-units planned |
|-----------------|------------|-------|--|-------------------|
| Lectures | Practicals | Total | | |
| 7 | 1 | 8 | Sem IV - History of microbiology | |
| 6 | 2 | 8 | Sem IV - probes, blotting techniques | |
| 12 | | 12 | Sem-VI - DNA fingerprinting | |
| Month Aug | | | Module/Unit: | Sub-units planned |
| Lectures | Practicals | Total | | |
| 8 | 1 | 9 | Sem II - Structure of bacterial cell | |
| 6 | 3 | 9 | Sem IV - PCR & Types | |
| 10 | | 10 | Sem-VI - Antisense therapy, Genomics, Proteomics | |
| Month Sep, Oct | | | Module/Unit: | Sub-units planned |
| Lectures | Practicals | Total | | |
| 10 | 2 | 12 | Sem-II - Stain & staining procedure | |
| 6 | 3 | 9 | Sem IV - screening | |
| 11 | 1 | 12 | Sem-VI - Database | |

Amita
Name and Signature of Teacher
Ms. A. B. Saranmukh

Madaf
Name and Signature of HOD
Ms. Madaf Salama
Hanny

Head
Department of Biotechnology (Optional)
Vivekanand College, Kolhapur (Autonomous)

Note: In the above format, for each month for each teacher.

