

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018 - 2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Miss. P. D. Pati

Department : Biotechnology (Entm)

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc I Biotech (Ent) Sem I	Bio-Technique and Instrumentation DSC - A	Unit I :- Protein Purification (centrifugation)	AU covered	—	
		Unit II :- Microscopy UV- visible spectroscopy	AU covered	—	
	Practical	Practical :- 08	AU covered	—	
B.Sc I Biotech (Ent) Sem II	Cell Biology DSC - B	Unit I :- Cell structure Nucleus	AU covered	—	
		Unit II :- Cytoskeleton assembly.	AU covered	—	
	Practical	Practical :- 03	AU covered	—	

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc II Biotech (Ent) Sem III	Plant Tissue Culture psc-1350 c	Unit I :- Introduction Culture, Laboratory Culture Medium, Organogenesis	All covered	—	
		Unit II :- Anther & Pollen Culture, Micropropagation	All covered	—	
B.Sc II Biotech (Ent) Sem IV	Animal Tissue culture psc 1350 D	Unit I :- Introduction, Cell culture, Culture Media	All covered	—	
		Unit II :- scale up animal cell culture stem cell technology	All covered	—	
	Practical	Total Practical :- 10	All covered	—	

S. K. S.  
HEAD

DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(Signature of the Head of Dept.)



~~P. D. Patil~~  
MS. P. D. Patil  
(Signature of the Teacher)

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018 - 2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : ms. Parya. D. Patil

Department : Biotechnology (Ent)

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc III Biotech (Ent) Sem IV	Application of Biotechnology in Agriculture OSE 1357 E	Unit I :- Crop Improvement Somatic hybridization Cytoplasm Conservation	AU covered	—	
		Unit II :- Biofertilizer Bio pesticide	AU covered	—	
	Practical	Practical :- 06	AU covered	—	
B.Sc III Biotech (Ent) Sem VI	Application of Biotechnology in health OSE 1357 F	Unit I :- stem cells Transgenic technology Vaccines	AU covered	—	
		Unit II :- Monoclonal Antibodies, Gene Therapy Public health	AU covered	—	









# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018 - 20 19

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Vinaya Namdev More

Department : Biotechnology (Entire)

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
BSC-I	DSC-A Microbiology (sem-I)	unit-1 - Microbiology History, definition types of MoS.	All covered	—	
		unit-2 - bacterial taxonomy, nutrition sterilization, stain & staining procedure.	All covered.	—	
	(sem-II)	unit-1 - culture media & pure culture tech, methods for pure culture	All covered	—	
		unit-2 - Air, water & Medical microbio- logy.	All covered	—	

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
Bsc-II	BSC-B45C Genetics (sem 2)	unit -1 Mendel's law of inheritance, linkage, Inter- action of gene. Unit-2- structural & numerical changes in chromosome, plasmid, re- combination in bacteria & Genetic disease	All covered	—	
			All covered	—	

(Signature of the Head of Dept.)

**HEAD**  
DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



V.N. More  
(Signature of the Teacher)  
(Miss. V. N. More)



# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018-2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Miss. V. N. More

Department : \_\_\_\_\_

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
Bsc-II	sem IV DSC1345D Immunology	Unit - I - types of Immunity, defence of cells & organs of immune system. unit - 2 - Ag & Ab, Immune response & Ag-Ab reaction	All covered	—	
Bsc-III	sem IV DSE-1356 Industrial (biotech- nology)	unit - I - Introdu- ction, screening scale up & fermentation media.	All covered	—	

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
		unit-2 - strain improvement, Downstream process & Product recovery.	All covered		
BSc-III (Sem IV)	DSE-1356 Food & Microbial technology.	Fermentation of food & Beverages, Food spoilage, preservation & toxicity. Impact of Gm food on health. Public health Principles.	All covered.		

(Signature of the Head of Dept.)

HEAD

DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



(Signature of the Teacher)  
(Miss. V. N. More)

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018 - 2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Dr. A.A. Patravale.

Department : Biotech (Entire)

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
BSc-I sem II	DSc-B chemistry	unit - 1 Fundamentals of Mechanistic chemistry. stereochemistry.	All covered.		
		Unit-2 - Titr- metric Analysis of Gravimetric Analysis, chemistry of Natural products.	All covered		

S.A.  
HEAD

DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



(Dr. A.A. Patravale)

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018-2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Miss. Kumbhar.

Department : Biotech (Entire)

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
BSC-I	DSC-A mathe- matics	Unit - 1 - Complex Numbers, Modules & argument of Complex.  Unit - 2 - Matrices & differential equation  partial differen- -tiation			



Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
BSc-I sem II	DSc-B statis- tics	unit-1 - Introduction to statistics & collection of data Graphical representation.  Unit-2 - correlation & regression, probability & testing of hypothesis. Limits of probability.			

(Signature of the Head of Dept.)

HEAD

DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



(Signature of the Teacher)

(Miss. Kumbhar)









Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
Bsc-I Sem II	Bsc-B physics	Unit-1 - optics correlated with Microscopy.	AU covered		
		Unit-2 Bio electricity			
		semiconductor devices & Digital elec- tronics.	AU covered.		

(Signature of the Head of Dept.)

HEAD

DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



(Signature of the Teacher)

(Mr. Mulla)

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018 - 2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Mr. S. G. Kulkarni

Department : Biotech (Entire)

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
Bsc-I sem I	Dsc-A Biochem.	unit-1 - origin of life, pH, pKa nucleic acids.	All covered		
		unit-2 - Carbohy- drates, lipids	All covered.		
sem II	Dsc-B biochem.	unit-1 - protein chromatography	All covered		
		unit-2 - Enzymes co-enzymes. properties type etc.	All covered.		

SH  
HEAD

DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



(Mr. S. G. Kulkarni)

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018 - 2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : A. L. Upadhye

Department : Biotechnology

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc-III	Bioinformatics	Unit I. Introduction to Bioinformatics. and Genomics.	All Covered.	—	
		Unit I & II PubMed, Primary and Secondary Databases.	All Covered.	—	
		Unit II Sequence Alignment Drug designing	All Covered	—	
		5 Practical	All Covered	—	

HEAD

DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



(Mrs A. L. Upadhye)

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018 - 2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Mrs A. L. Upadhye.

Department : Biotechnology.

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc-III	Basis in G.E	Unit I Enzymes in rDNA Technology Bacteriophage Vector.	All Covered	—	
		Unit I and II Plant Vector Nucleic Acid Hybridization.	All Covered.	—	
		Unit II DNA Sequencing. Gel Blotting Tech.	All Covered	—	
		Practicals of	All Covered	—	



Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc-III	Advances in Genetic Engineering.	Unit-I Introduction to Industrial Biotech. Isolation of Gene PCR and its Application.	All Covered	—	
		Unit-II Pt I Barcoding. Cloning methods. Screening of recombinants.	All Covered	—	
		Unit II Application of r-DNA technology	All Covered	—	
		5 Practicals	All Covered	—	

(Signature of the Head of Dept.)

HEAD  
DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



(Signature of the Teacher)

(Mrs A. L. Upadhye)

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018 - 2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Mr A. L. Upadhye

Department : Biototechnology.

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc-II	Molecular Biology I	Experimental Evidences for DNA as a genetic material	All covered	—	
	Unit II & I	Organization of genome & Nucleic Acid Biosynthesis	All covered	—	
	Unit II	DNA Replication and DNA Repair	All covered	—	
		Practicals 05	All covered	—	

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc-II	Molecular Biology II	Unit I Transcription in Pro and Eukaryotes Genetic Code.	All Covered.	—	
		Unit I & II Genetic Code. Translation in Prokaryotic & Eukaryotic Cells.	All Covered.	—	
		Unit II Regulation of gene Expression.	All Covered	—	
		Practical 05.	All Covered	—	

(Signature of the Head of Dept.)

**HEAD**  
DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



(Signature of the Teacher)

(Mrs A.L. Chaudhary)

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018 - 2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Mr A. L. Upadhye.

Department : Biotech.

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc-II Biotech Entire	Ecology	Unit - I Ecosystem, Productivity Ecological Pyramids Energy flow.	All Covered.	—	—
		Unit I and II Bio geochemical Cycle Concept - Habitat and Niche Population Ecology.	All Covered	—	
		Unit II Population growth Evolution Hardy- Weinberg law & Equation.	All Covered.	—	
		Practicals - 5	All Covered	—	



Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc-II	Environ mental Biotech.	Unit I Water pollution. Air pollution. Soil pollution.	All Covered.	—	
		Unit I and II Environmental Toxicology. Environmental Impact.	All Covered	—	
		Unit II Bioremediation Technique.	All Covered	—	
		Practical 5	All Covered	—	

(Signature of the Head of Dept.)  
**HEAD**  
 DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
 VIVEKANAND COLLEGE, KOLHAPUR  
 (EMPOWERED AUTONOMOUS)



(Signature of the Teacher)  
 (Mr A. L. Opadhye)

# VIVEKANAND COLLEGE, KOLHAPUR.

## STATEMENT OF SYLLABUS COVERED

Year : 2018-2019

Term : I<sup>st</sup> / II<sup>nd</sup>

Name of the Teacher : Mr. S.S. Sutar.

Department : Biotech (Entire)

Class	Subject	Syllabus Assigned	Syllabus Covered	Syllabus Not to Covered	Remarks
B.Sc-III Sem V	DSE- 1358 E Develop- mental biology	Unit 1 - plant development. Meristem organization plant Embrology Gamatogenesis.  Unit 2 - Animal development.  Early develop- ment Animals. Gamatogenesis Differentiation and regenera- -tion.	All covered	—	
			All Covered	—	

HEAD

DEPARTMENT OF BIOTECHNOLOGY (ENTIRE)  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



(Mr. S.S. Sutar)