MEENAKSHI CHANDRASEKARAN COLLEGE OF ARTS AND SCIENCE

(Affiliated to Bharathidasan University, Tiruchirappalli)
(UGC Recognized 2(f) & 12(B) Institution)

PROGRAM OUTCOME M.Sc., MICROBIOLOGY

PO1	Use specialized microbiology knowledge from a variety of areas to critically assess and evaluate microbiological, environmental and health-related issues.
PO2	Function effectively as teams to plan tasks, execute them to achieve the set goal, and analyze risk and uncertainties involved in the environment, health, and allied sectors.
PO3	Demonstrate proficiency in regular and specialized microbiological laboratory abilities relevant to microbiological research or clinical procedures, such as laboratory safety and properly reporting
PO4	Communicate scientific concepts, experimental data, and analytical reasoning in both spoken and written form.
PO5	Practice the adaptability required for careers in microbiology.

COURSE : MEDICAL MICROBIOLOGY SUB CODE:P16MB41

CO1	Explain sophisticated information about human microbial flora features.
CO2	Recognize medical bacteriology, including morphology, cultural and biochemical properties,
CO3	Apply medical mycology, including morphology, cultural and biochemical traits, pathogenesis, lab
CO4	Define medical virology, such as morphology, cultural and biochemical features, pathophysiology,
CO5	Development of antibiotic-resistant organisms

PO →	**PO2**	**PO3**	**PO4**	**PO5**
CO1	2	2	2	1
CO2	2	3	3	2
CO3	2	1	2	1
CO4	2	1	2	2
CO5	3	3	3	1
AVERAGE	**2.2**	**2**	**2.4**	**1.4**

INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO		
	SEMINAR (5)	**ASSIGNMENT (5)**
CO1	**1**	**1**
CO2	**1**	**1**
CO3	**1**	**1**
CO4	**1**	**1**
CO5	**1**	**1**
TOTAL	**5**	**5**

SNO	**REG. NO**	**NAME**	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**

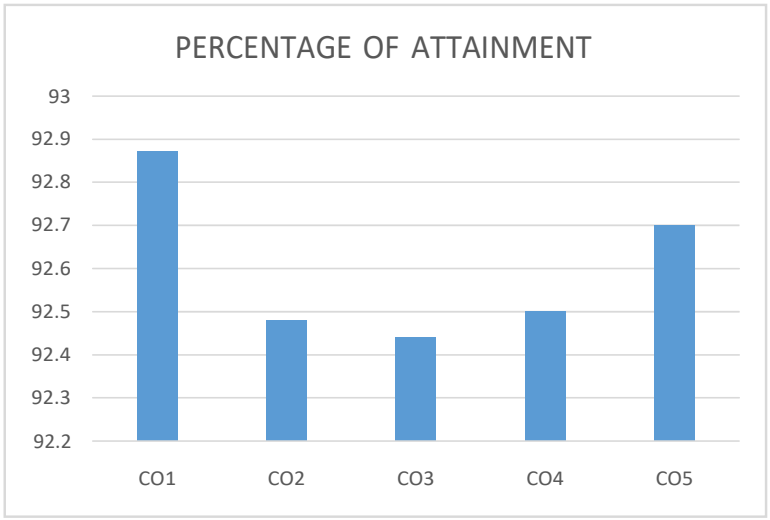
1	P20392515	AKALYA.K	4	4	4	4	4
2	P20392501	ARULSELVI.A	4	5	5	5	5
3	P20392502	DHANUSHA.P	3	3	4	5	4
4	P20392503	DHIVYABHARATHI .A	4	4	3	4	4
5	P20392504	GAYATHRI.T	4	4	4	4	4
6	P20392505	JAYA DEVI.P	5	4	4	4	4
7	P20392506	KALAISELVI.K	4	5	5	5	5
8	P20392507	KALVIKKARASI.B	4	4	4	5	5
9	P20392508	MANJU.D	4	5	5	5	5
`10	P20392509	NISHANTHINI.M	3	5	3	5	3
11	P20392510	PAVITHA.A	4	4	4	4	4
12	P20392511	PRIYA.V	4	3	4	4	4
13	P20392512	ROHINI.M	3	4	4	4	4
14	P20392513	SANTHIYA.S	3	4	4	4	4
15	P20392514	SARMILA.M.R	5	4	5	5	4
		AVERAGE	**3.87**	**4.13**	**4.13**	**4.47**	**4.20**

EXPECTED	**INT. EXAM+ SEMINAR+**	**TOTAL**
CO1	**3.94**	**#REF!**
CO2	**3.61**	**78.61**
CO3	**3.58**	**78.58**
CO4	**3.63**	**78.63**
CO5	**3.8**	**78.8**

COURSE ATTAINMENT FOR B.SC., MICROBIOLOGY
SUBJECT NAME :MEDICAL MICROBIOLOGY
SUBJECT CODE :P16MB41
F STUDE 36

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	92.87
CO2	92.48

CO3	92.44
CO4	92.5
CO5	92.7

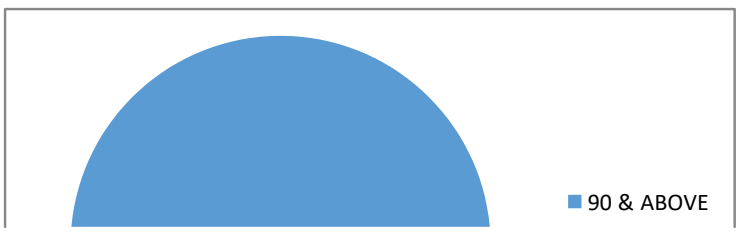


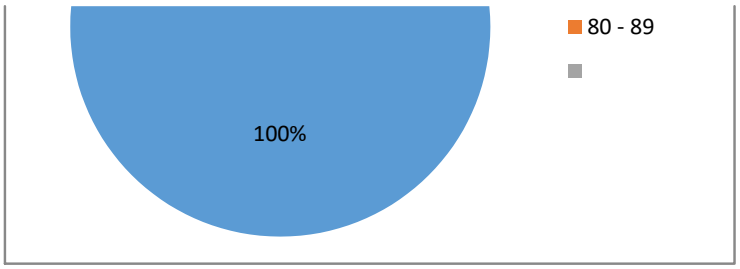
COURSE ATTAINMENT FOR M.Sc.MICROBIOLOGY

SUBJECT NAME: MEDICAL MCROBIOLOGY
SUBJECT CODE: P16MB22
NO. OF STUDENTS:23

COURSE OUTCOME ASSESSMENT		
CATEGORY (MARKS)		**STATUS**
90 & ABOVE		**OUTSTANDING**
80 - 89		**EXCELLENT**
70 - 79		**DISTINCTION**
60 - 69		**VERY GOOD**
50 - 59		**GOOD**
40 - 49		**AVERAGE**
BELOW 40		**RA**

COURSE OUTCOME ASSESSMENT IN PERCENTAGE		
CATEGORY (MARKS)		**STATUS**
90 & ABOVE		DISTINCTION
80 - 89		VERY GOOD





ME B.Sc.,MICROBIOLOGY

PO1	Demonstrate holistic knowledge on the various facets of microbiology.
PO2	Make use of fundamental skills such as cultivating microorganisms, keeping bacteria, handling microbes safely, following proper microbiological procedures, and so on.
PO3	Analyze microbe-related problems, communicate them to peers/team members/other stakeholders and
PO4	Apply microbiological principles to a wide range of fields such as medicine, industry, environment,
PO5	Demonstrate key practical competences in dealing with microorganisms for research purposes.

COURSE : FUNDAMENTALS OF MICROBIOLOGY SUB CODE:16SCCMB1

CO1	Identify the basic concepts and ranges of agricultural and environmental microbiologyIdentify the basic concepts and ranges of agricultural and environmental microbiology
CO2	Find information about plant disease control methods, pathogen entry, symptoms, and the disease cycle.
CO3	Understand microbial ecology and microorganisms that live in harsh settings
CO4	Demonstrate key practical competences in dealing with microorganisms for research purposes.
CO5	Understand the historical Developments in Microbiology.

PO →	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	2	1
CO2	3	2	3	3	2
CO3	3	2	1	2	1
CO4	3	2	1	2	2
CO5	3	3	3	3	1
AVERAGE	**3**	**2.2**	**2**	**2.4**	**1.4**

ISTRIBUTION FOR EACH COURSE OUTCOME

CO	**INTERNAL (25)**			
	UNIT TEST (15)	**SEMINAR (5)**		
CO1	**3**	**1**		
CO2	**3**	**1**		
CO3	**3**	**1**		
CO4	**3**	**1**		
CO5	**3**	**1**		
TOTAL	**15**	**5**		

SNO	REG. NO	NAME	CO1	CO2	CO3	% TO TOTAL INTERNAL MARK
	CB21S412823	ANJALI B	4	4	4	96

2	CB21S412824	ANTHONY ANUSHIYA A	4	5	5	76
3	CB21S412825	DEEPA S	3	3	4	88
4	CB21S412826	FAZILA B	4	4	3	96
5	CB21S412827	KARANSIYA S	4	4	4	76
6	CB21S412828	KAVIYA R	5	5	5	76
7	CB21S412829	KEERTHANA R	4	5	5	88
8	CB21S412830	KEERTHANA R	4	4	4	96
9	CB21S412831	KIRUTHIKA K	4	5	5	92
`10	CB21S412832	KRISHNAVENI R	4	4	4	92
11	CB21S412833	MACTHALIN HANCY Y	4	4	4	96
12	CB21S412834	MAHALAKSHMI R	4	4	4	80
13	CB21S412835	MAHDIYA A	3	4	4	80
14	CB21S412836	NIVEDHA P	3	4	4	80
15	CB21S412837	PRIYADHARSHINI K	5	5	5	76
16	CB21S412838	RANJITHA R	4	4	4	76
17	CB21S412839	RAVEENA R	5	5	5	96
18	CB21S412840	SANTHIYA S	4	5	5	76
19	CB21S412841	SARANYA H	3	3	4	88
20	CB21S412842	SATHIYA PRIYA T	4	4	3	96
21	CB21S412843	SHARMILA T	4	4	4	76
22	CB21S412844	SINTHU S	5	5	5	76
23	CB21S412845	SNEGA S	4	5	5	88
24	CB21S412846	VAITHEESHWARI S	4	4	4	80
25	CB21S412847	VINITHA S	3	4	4	80
26	CB21S412848	YOGESHWARI R	3	4	4	80
		AVERAGE	**4**	**4.29**	**4.29**	

EXPECTED ATTAINMENT IN EACH CO - 85%	**INT. EXAM+ SEMINAR+ ASSIGNMENT**	**END SEM**	**TOTAL**
CO1	4	75	79
CO2	4	75	79.29
CO3	4.29	75	79.29
CO4	4.29	75	79.52
CO5	4.52	75	75

COURSE ATTAINMENT FOR B.SC., BIOTECHNOL MICROBIOLOGY

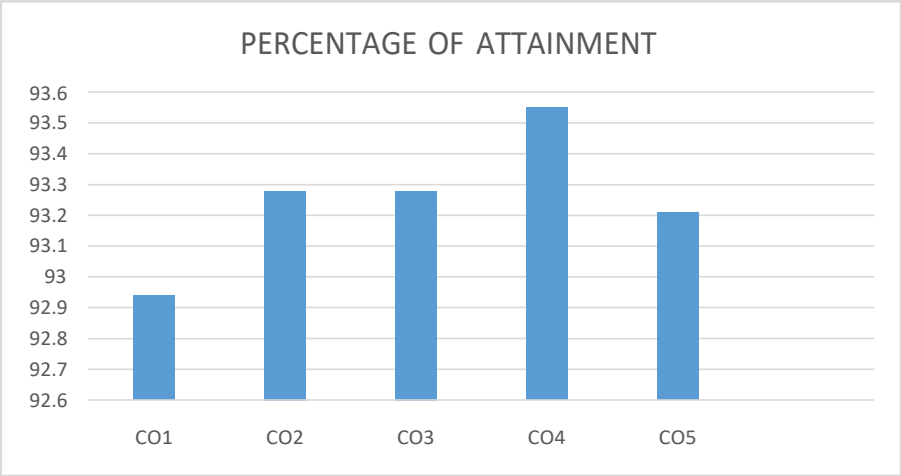
SUBJECT NAME :FUNDAMENTALS OF MICROBIOLOGY

NO.OF STUDENTS: 27

Subject Code: 16SCCMB1

COURSE OUTCOME	**PERCENTAGE OF ATTAINMENT**

CO1	92.94
CO2	93.28
CO3	93.28
CO4	93.55
CO5	93.21

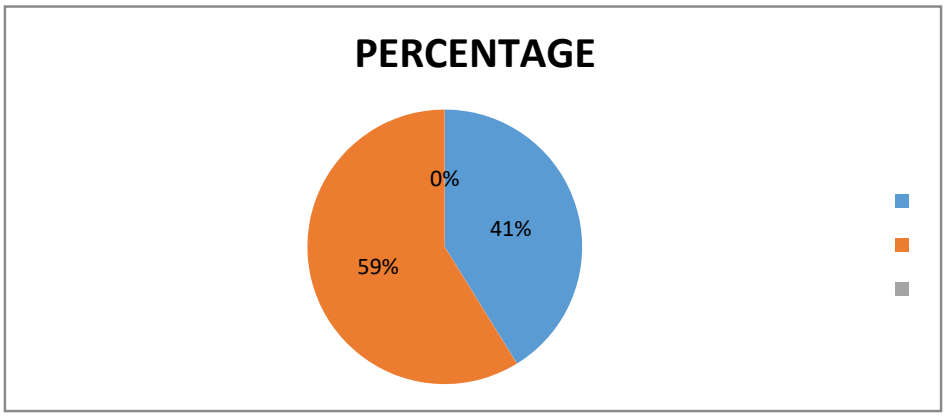


SUBJECT CODE:
16SACMB1
NO. OF STUDENTS: 17

SUBJECT NA **16SCCMB1**
SUBIECT CODE 27
NO.OF .STUDENTS:

	COURSE OUTCOME ASSESSMENT	
	NO. OF STUDENTS	**STATUS**
CATEGORY (MAR	**7**	**OUTSTANDING**
90 & ABOVE	**10**	**EXCELLENT**
80 - 89	**0**	**DISTINCTION**
70 - 79	**0**	**VERY GOOD**
60 - 69	**0**	**GOOD**
50 - 59	**0**	**AVERAGE**
40 - 49	**0**	**RA**
BELOW 40		

	COURSE OUTCOME ASSESSMENT IN PERCENTAGE	
	PERCENTAGE	**STATUS**
CATEGORY (MAR	41.17%	DISTINCTION
90 & ABOVE	58.82%	VERY GOOD
80 - 89		



PROGRAM OUTCOME B.Sc.,Microbiology

PO1	Demonstrate holistic knowledge on the various facets of microbiology.
PO2	This course is designed to given an understanding about the basics of
PO3	Make use of fundamental skills such as cultivating microorganisms, keeping bacteria, handling
PO4	Apply microbiological principles to a wide range of fields such as medicine, industry, environment,
PO5	Analyze microbe-related problems, communicate them to peers/team members/other stakeholders and

COURS

CO1	Acquire a basic knowledge of the genes and genomes of bacteria Understand the DNA replication process used by prokaryotes.
CO2	Recognize the mechanisms underlying DNA repair, transposons, and mutations
CO3	Analyze the production of proteins.
CO4	Prokaryotic and Eukaryotic DNA replication.Mechanism of DNA replication.Enzymes & proteins
CO5	Regulation of gene expression.gene loss, gene amplification, gene rearrangement.

PO →	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	2	1
CO2	3	2	3	3	2
CO3	3	2	1	2	1
CO4	3	2	1	2	2
CO5	3	3	3	3	1
AVERAGE	**3**	**2.2**	**2**	**2.4**	**1.4**

INTERNAL EXAMINATION MARK DISTRIBUTION FOR EACH COURSE OUTCOME

CO	**INTERNAL (25)**	
	UNIT TEST (15)	**SEMINAR (5)**
CO1	**3**	**1**
CO2	**3**	**1**
CO3	**3**	**1**
CO4	**3**	**1**
CO5	**3**	**1**
TOTAL	**15**	**5**

SNO	REG. NO	NAME	CO1	CO2	CO3	% TO TOTAL INTERNAL MARK
1	P20392503	DHIVYABHARATHI.A	4	4	4	92
2	P20392504	GAYATHRI.T	4	4	5	92
3	P20392505	JAYA DEVI.P	5	5	5	96
4	P20392506	KALAISELVI.K	5	5	5	100
5	P20392507	KALVIKKARASI.B	5	5	5	100
6	P20392508	MANJU.D	5	5	5	100
7	P20392509	NISHANTHINI.M	5	5	5	100
8	P20392510	PAVITHA.A	4	4	5	92
9	P20392511	PRIYA.V	5	5	4	88
10	P20392512	ROHINI.M	4	4	4	88
11	P20392513	SANTHIYA.S	4	4	4	88
12	P20392514	SARMILA.M.R	4	4	4	88

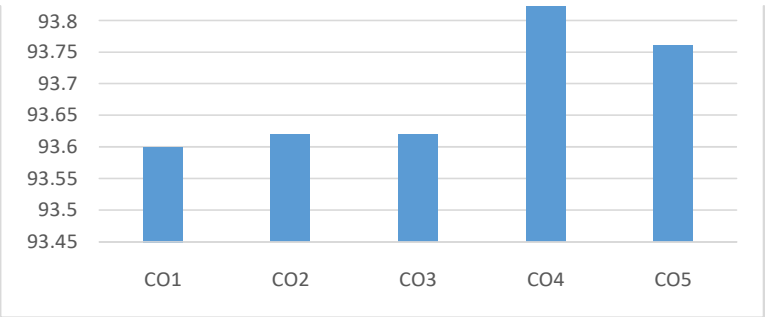
EXPECTED ATTAIMENT IN	INT. EXAM+ SEMINAR+ ASSIGNMENT	END SEM	TOTAL
CO1	**4.56**	**75**	**79.56**
CO2	**4.56**	**75**	**79.56**
CO3	**4.56**	**75**	**79.56**
CO4	**4.81**	**75**	**79.81**
CO5	**4.7**	**75**	**79.7**

COURSE ATTAINMENT SC .,MICROBIOLOGY
SUJECT NAME : MOLECULAR BIOLOGY AND MICROBIAL GENETICS
SUBJECT CODE :16SCCBT1
STUDENE:16SCCMB7

17

COURSE OUTCOME	PERCENTAGE OF ATTAINMENT
CO1	**93.6**
CO2	**93.62**
CO3	**93.62**
CO4	**93.9**
CO5	**93.76**

s

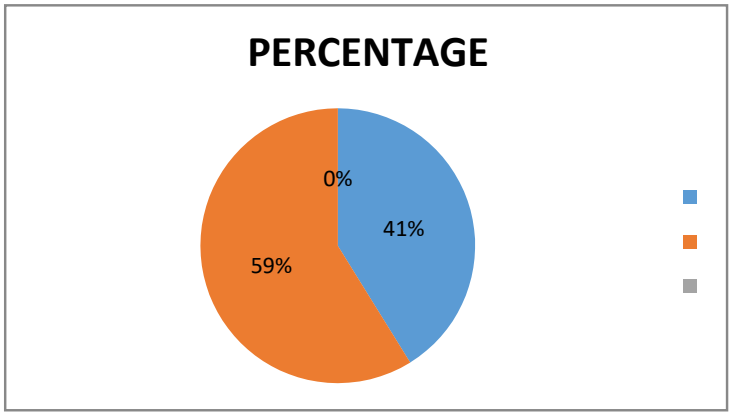


COURSE ATTAINMENT FOR B.Sc. BIOTECHNOLOGY

SUBJECT NAME: MOLECULAR BIOLOGY AND MICROBIAL GENETICS

TCOME ASSESSMENT							
GORY (MARKS)		NO. OF STUDENTS				STATUS	
) & ABOVE		0				OUTSTANDING	
80 - 89		0				EXCELLENT	
70 - 79		4				DISTINCTION	
60 - 69		7				VERY GOOD	
50 - 59		5				GOOD	
40 - 49		0				AVERAGE	
ELOW 40		0				RA	

SSESSMENT IN PERCENTAGE							
GORY (MARKS)		PERCENTAGE				STATUS	
70 - 79		25.50%				DISTINCTION	
60 - 69		43.75%				VERY GOOD	
50 - 59		31.25%				GOOD	



COME B.Sc.,Microbiology

PO1	Demonstrate holistic knowledge on the various facets of microbiology
PO2	Make use of fundamental skills such as cultivating microorganisms, keeping bacteria, handling microbes safely, following proper microbiological procedures, and so on.

PO3	PO3 Apply microbiological principles to a wide range of fields such as medicine, industry, environment, genetics, agriculture, food, and others.
PO4	Demonstrate key practical competences in dealing with microorganisms for research purposes.
PO5	Analyze microbe-related problems, communicate them to peers/team members/other stakeholders and

COURS

CO1	Describe the history of immunology and immune hematology.
CO2	Understand the immune system
CO3	Demonstrate antigens and the various types of antigens.
CO4	Explain Immunodeficiency illnesses, antigen and antibody reactions.
CO5	Recognize hypersensitivity reactions as well as the foundational ideas behind transplantation and

	PO1	**PO2**	**PO3**	**PO4**	**PO5**
CO1	3	2	2	2	1
CO2	3	2	3	3	2
CO3	3	2	1	2	1
CO4	3	2	1	2	2
CO5	3	3	3	3	1
AVERA	**3**	**2.2**	**2**	**2.4**	**1.4**

ISTRIBUTION FOR EACH COURSE OUTCOME

CO	**INTERNAL (25)**	
	UNIT TEST (15)	**SEMINAR (5)**
CO1	**3**	**1**
CO2	**3**	**1**
CO3	**3**	**1**
CO4	**3**	**1**
CO5	**3**	**1**
TOTAL	**15**	**5**

SNO	**REG. NO**	**NAME**	**CO1**	**CO2**	**CO3**	**% TO TOTAL INTERNAL MARK**
1	CB20S411666	SATHYA.V	4	4	4	92
2	CB20S411667	SHAALVI.S	4	4	5	92
3	CB20S411668	SIBI.S	5	5	5	92
4	CB20S411669	SOWMIYA.P	5	5	5	96
5	CB20S411670	SOWMIYA.R	5	5	5	100
6	CB20S411671	SUBALAKSHMI.V	5	5	5	100
7	CB20S411672	SUVETHA.T	5	5	5	100

8	CB20S411673	SWETHA.B	4	4	5	92
9	CB20S411674	SWETHA.V	5	5	4	88
10	CB20S411675	THANIKA.G	4	4	4	88
11	CB20S411677	THILAGA.M	4	4	4	88
12	CB20S411678	THINUSHIYA.P	4	4	4	88
13	CB20S411679	VEERENTHINI.G	5	5	4	88
14	CB20S411680	VIJAYALAKSHMI.D	5	5	5	96
		AVERAGE		**4.57**	**4.57**	

EXPECTED ATTAINMENT IN EACH CO - 85%	**INT. EXAM+ SEMINAR+ ASSIGNMENT**		**END SEM**	**TOTAL**
CO1	**4.56**		**75**	**79.56**
CO2	**4.56**		**75**	**79.56**
CO3	**4.56**		**75**	**79.56**
CO4	**4.81**		**75**	**79.81**
CO5	**4.7**		**75**	**79.7**

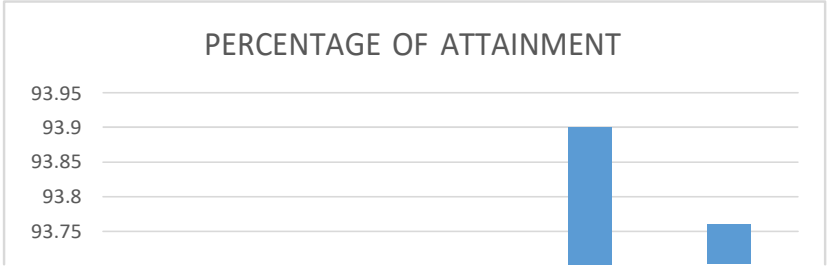
COURSE ATTAINMENT FOR B.SC., MICROBIOLOGY

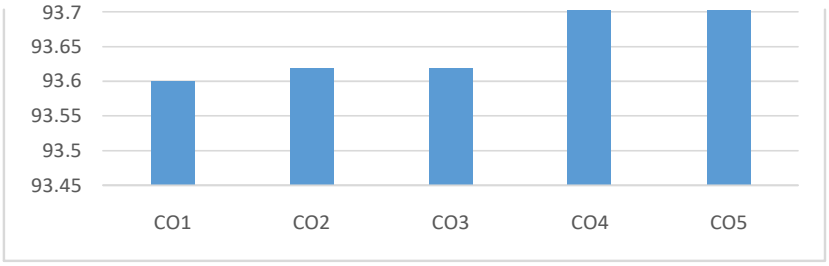
SUBJECT NAME :CELL BIOLOGY

SUBJECT CODE :16SCCBT1

F STUDENTS: 16

COURSE OUTCOME	**PERCENTAGE OF**
CO1	**93.6**
CO2	**93.62**
CO3	**93.62**
CO4	**93.9**
CO5	**93.76**

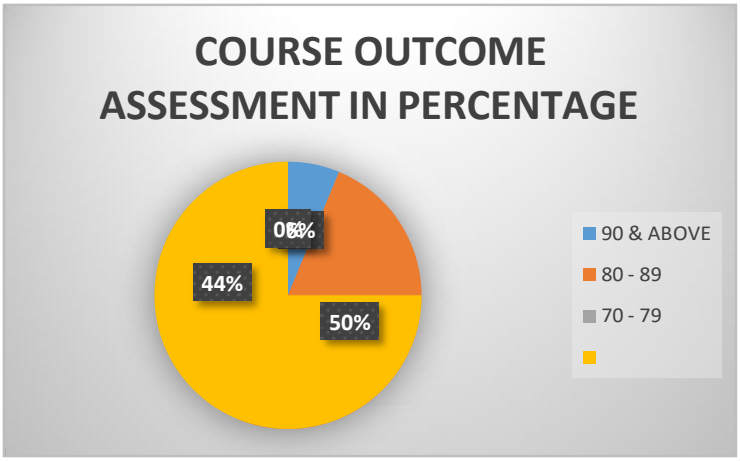




NT FOR B.Sc. MICROBIOLOGY

SUBJECT NAME: APPLIED MICROBIOLOGY
SUBJECT CODE: 16SACMB2
NO. OF STUDENTS: 16

COURSE OUTCOME ASSESSMENT CATEGORY (MARKS)	NO. OF STUDENTS	STATUS
90 & ABOVE	1	OUTSTANDING
80 - 89	8	EXCELLENT
70 - 79	7	DISTINCTION
60 - 69	0	VERY GOOD
50 - 59	0	GOOD
40 - 49	0	AVERAG
BELOW 40	0	RA



PRINCIPAL
Meenakshi Chandrasekaran
College of Arts and Science
Karambayam, Pattukkottai-614 625
Thanjavur-District