

**Kavayitri Bahinabai Chaudhari
North Maharashtra University, Jalgaon**



Structure of Syllabus for B. Sc.

T. Y. B. Sc.(Subject name)

Choice Based Credit System (CBCS)

2020-2021

T. Y. B. Sc. Subject Name (CBCS Structure) Semester V and VI

Preamble

Introduction

Scheme for B.Sc. Program (Faculty of Science and Technology)

		First Year				Second Year				Third Year				Total Credit value
		Semester I		Semester II		Semester III		Semester IV		Semester V		Semester VI		
		Credits each	Courses											
1	Core courses													
	(i)Theory	4	4	4	4	4	3	4	3					4X14=56
	(ii)Practical	2	4	2	4	2	3	2	3					2X14=28
2	Ability enhancement compulsory course (AECC)(2)	2	1	2	1	2	1	2	1					2 X4 = 08
3	Skill Enhancement Course (SEC) (4)					2	1	2	1					2X 2 = 04
4	Discipline Specific Core DSC													
	(i)Core I to IV									3	4	3	4	3X8=24
	(ii)Core (Practical)									2	3	2	3	2X6=12
5	Skill Enhancement Course (SEC): Skill Based course									3	1	3	1	3 X 2 = 06
6	Elective Course (any one)									3	1	3	1	3 X 2 = 06
7	Elective Audit Course (out of 3)									None Credit	Any one	None Credit	Any one	--
	Total Credit value (Credit x No. of Courses)	26		26		22		22		24		24		144

Learning Objectives

Structure of curriculum of T. Y. B. Sc. (Subject Name)

Semester V

Discipline	Course Type	Course Code	Course title	Credits	Hours/week (Clock hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	XY-501		3	3	45	40	60
	Core II	XY-502		3	3	45	40	60
	Core III	XY-503		3	3	45	40	60
	Core IV	XY-504		3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	XY-505		3	3	45	40	60
DSC Elective course	Elective Course (Any one)	XY-506 (A)		3	3	45	40	60
		XY-506 (B)						
DSC	Core (Practical)	XY-507		2	4 (per batch)	60	40	60
		XY-508		2	4 (per batch)	60	40	60
		XY-509		2	4 (per batch)	60	40	60
Non Credit Audit Course	Elective audit course (Any one)	AC-501 : A	NSS	No credit	2	30	100	--
		AC-501 : B	NCC					
		AC-501 : C	Sports					

Semester VI

Discipline	Course Type	Course Code	Course title	Credits	Hours/week (Clock hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	XY-601		3	3	45	40	60
	Core II	XY-602		3	3	45	40	60
	Core III	XY-603		3	3	45	40	60
	Core IV	XY-604		3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	XY-605		3	3	45	40	60
DSC Elective Course	Elective Course (Any one)	XY-606 (A)		3	3	45	40	60
		XY-606 (B)						
DSC	Core (Practical)	XY-607		2	4 (per batch)	60	40	60
		XY-608		2	4 (per batch)	60	40	60
		XY-609		2	4 (per batch)	60	40	60

Non Credit Audit Course	Elective audit course (Any one)	AC-601 : A	Soft skill	No credit	2	30	100	--
		AC-601 : B	Yoga					
		AC-601 : C	Practicing Cleanliness					

CA: Class assessment (Internal examination); UA: University assessment

Program specific objectives (PSO)

Program outcome (PO)

Course outcome (CO)

Course Structure:

Eligibility:

Course fee:

Duration: The duration of B.Sc. degree program shall consists of three years.

Medium of instruction: The medium of instruction for the courses shall be English.

Credit to contact hour:

Attendance:

Examination pattern

- Each theory and practical course will be of 100 marks comprising of 40 marks internal and 60 marks external examination.
- Theory examination (60 marks) will be of three hours duration for each theory course. There shall be 5 questions each carrying equal marks (12 marks each). The pattern of question papers shall be:

Internal examination (40 marks)

Practical examination

Distribution of Course papers for T. Y.B. Sc. (Subject Name) Semester: V

Discipline	Course Type	Course Code	Course title	Credits	Hours/week (Clock hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	XY-501		3	3	45	40	60
	Core II	XY-502		3	3	45	40	60
	Core III	XY-503		3	3	45	40	60
	Core IV	XY-504		3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	XY-505		3	3	45	40	60
DSC Elective course	Elective Course (Any one)	XY-506 (A)		3	3	45	40	60
		XY-506 (B)						
DSC	Core (Practical)	XY-507		2	4 (per batch)	60	40	60
		XY-508		2	4 (per batch)	60	40	60
		XY-509		2	4 (per batch)	60	40	60
Non Credit Audit Course	Elective audit course (Any one)	AC-501 : A	NSS	No credit	2	30	100	--
		AC-501 : B	NCC					
		AC-501 : C	Sports					

DSC Core Courses		
XY - 501: Course Title		
Total Hours: 45		Credits: 3
Unit	Topics	Lectures
	Course objective	
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	Learning outcomes	
	<u>After successful completion of this course, students are expected to:</u>	
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UNIT-1		
Suggested Readings	1. Lehninger, A I. (2013) Principles of Biochemistry, 6 th edn., Nelson, D L and Cox, M. M. (eds.) WH Freeman and Co., New York.	

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Note: Mandatory to complete at least 12-13 Practicals		

DSC Core (Practical)		
XY – 508: Course title		
Total Hours: 60		Credits: 4
	Topics	Lectures
	Course objectives •	
	Learning outcomes After successful completion of this course, students are expected to: •	
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Note: Mandatory to complete at least 12-13 Practicals		

DSC Core (Practical)		
XY – 509: Course title		
Total Hours: 60		Credits: 4
Experiment	Topics	Lectures
	Course objectives •	
	Learning outcomes After successful completion of this course, students are expected to: •	
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Note: Mandatory to complete at least 12-13 Practicals

Suggested Readings	<ol style="list-style-type: none"> 1. Lehninger, A I. (2013) Principles of Biochemistry, 6thedn., Nelson, D L and Cox, M. M. (eds.) WH Freeman and Co., New York. 2. Moat, A. and Foster, J. (2002) Microbial Physiology, 4thedn., Wiley Interscience Publications, New York. 3. Gottschalk, G. (1986) Bacterial Metabolism, 2ndedn., Springer-Verlag 4. 	
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Non Credit Audit Course (Any one)

AC – 501 (A/ B/ C: NSS / NCC / Sports)

Total Hours: 30	Topics	No Credits Lectures
	Course objectives	
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	Learning outcomes	
	<u>After successful completion of this course, students are expected to:</u>	
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Suggested Readings	<ol style="list-style-type: none"> 4. Lehninger, A I. (2013) Principles of Biochemistry, 6thedn., Nelson, D L and Cox, M. M. (eds.) WH Freeman and Co., New York. 5. Moat, A. and Foster, J. (2002) Microbial Physiology, 4thedn., Wiley Interscience Publications, New York. 	

	6. Gottschalk, G. (1986) Bacterial Metabolism, 2 nd edn., Springer-Verlag	
	7.	

Distribution of Course papers for T. Y.B. Sc. (Subject Name) Semester: VI

Discipline	Course Type	Course Code	Course title	Credits	Hours/week (Clock hours)	Total Teaching hours	Marks (Total 100)	
							CA	UA
DSC	Core I	XY-601		3	3	45	40	60
	Core II	XY-602		3	3	45	40	60
	Core III	XY-603		3	3	45	40	60
	Core IV	XY-604		3	3	45	40	60
DSC Skill Enhancement Course (SEC)	Skill Based	XY-605		3	3	45	40	60
DSC Elective Course	Elective Course (Any one)	XY-606 (A)		3	3	45	40	60
		XY-606 (B)						
DSC	Core (Practical)	XY-607		2	4 (per batch)	60	40	60
		XY-608		2	4 (per batch)	60	40	60
		XY-609		2	4 (per batch)	60	40	60
Non Credit Audit Course	Elective audit course (Any one)	AC-601 : A	Soft skill	No credit	2	30	100	--

DSC Core Courses		
XY - 601: Course Title		
Total Hours: 45		Credits: 3
Unit	Topics	Lectures
	Course objectives	
	•	
	Learning outcomes	
	<u>After successful completion of this course, students are expected to:</u>	
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UNIT-1		
Suggested	1. Lehninger, A I. (2013) Principles of Biochemistry, 6 th edn., Nelson,	

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Note: Mandatory to complete at least 12-13 Practicals		
Suggested Readings	<ol style="list-style-type: none"> 1. Lehninger, A I. (2013) Principles of Biochemistry, 6thedn., Nelson, D L and Cox, M. M. (eds.) WH Freeman and Co., New York. 2. Moat, A. and Foster, J. (2002) Microbial Physiology, 4thedn., Wiley Interscience Publications, New York. 3. Gottschalk, G. (1986) Bacterial Metabolism, 2ndedn., Springer-Verlag 4. 	

DSC Core (Practical course)		
XY – 608: Course title		
Total Hours: 60		Credits: 4
	Topics	Lectures
	Course objectives	
	<ul style="list-style-type: none"> • 	
	Learning outcomes	
	After successful completion of this course, students are expected to:	
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Note: Mandatory to complete at least 12-13 Practicals		
Suggested	1. Lehninger, A I. (2013) Principles of Biochemistry, 6 th edn., Nelson,	

Readings	D L and Cox, M. M. (eds.) WH Freeman and Co., New York. 2. Moat, A. and Foster, J. (2002) Microbial Physiology, 4 th edn., Wiley Interscience Publications, New York. 3. Gottschalk, G. (1986) Bacterial Metabolism, 2 nd edn., Springer-Verlag 4.	
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DSC Core (Practical course)		
XY – 609: Course title		
Total Hours: 60		Credits: 4
Experiment	Topics	Lectures
	Course objectives	
	<ul style="list-style-type: none"> 	
	Learning outcomes	
	<u>After successful completion of this course, students are expected to:</u> <ul style="list-style-type: none"> 	
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Note: Mandatory to complete at least 12-13 Practicals		
Suggested Readings	1. Lehninger, A I. (2013) Principles of Biochemistry, 6 th edn., Nelson, D L and Cox, M. M. (eds.) WH Freeman and Co., New York. 2. Moat, A. and Foster, J. (2002) Microbial Physiology, 4 th edn., Wiley Interscience Publications, New York. 3. Gottschalk, G. (1986) Bacterial Metabolism, 2 nd edn., Springer-Verlag 4.	

Non Credit Audit Course: Elective Audit Course (Any one)		
AC – 601 (A/ B/ C: Soft skill / Yoga / Practicing Cleanliness)		
Total Hours: 30		No Credits
	Topics	Lectures
	Course objectives	
	<ul style="list-style-type: none"> 	

