Vishnu Waman Thakur Charitable Trust's

Bhaskar Waman Thakur College of Science,
Yashvant Keshav Patil College of Commerce,
Vidhya Dayanand Patil College of Arts,
(♥I♥▲ College)





PROSPECTUS
AY 2023-24

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## Preface

The Vishnu Waman Thakur Charitable Trust established the UTKARSHA JUNIOR COLLEGE in 1991 to promote the education in Virar and its adjoining rural and adivasi backward areas which had a population of over 1.5 Lac. The Junior College is affiliated to Maharashtra Board of Secondary and Higher Secondary Education. Subsequently in the year 2000-2001, the VIVA COLLEGE OF ARTS, COMMERCE & SCIENCE was established with affiliation to the University of Mumbai. The college is located in a beautiful pollution free environment of Virar (West) at a distance of about 1 km from Virar Railway Station on Western Railway. The Mandate of the Trust is to develop the college to a leading Centre of Education in its entire ramification in this region, In the last 20 years the college has made a phenomenal progress. The college is permanently unaided and affiliated to University of Mumbai. Not only this, in extra – Curricular activities the students of VIVA has won crown prizes in several of the events organized at Inter – Collegiate, District, State and National Level. The college has successfully been accredited by NAAC with "B" grade scoring a CGPA of 2.69 points with the contribution of the management, teaching and non-teaching staff members.

### **Objectives of the Trust**

The Objectives for which the Trust has been established are as under:

- 1. To spread education in all its branches.
- 2. To make such education available to all castes, creed. class or communities.



VIVA College strives to create an excellent platform for growth of student with its infrastructural facilities to give birth to an era of ACTIVE, ALERT and competitive generations.



Our mission is to provide quality education to students. To teach them the value of education and make them believe in the vivacity of Education System.

## TRUSTEES & MANAGING COMMITTEE MEMBERS

Sr. No.	Name of Trustee	Designation
1	Hon. Shri. Hitendra V. Thakur	President
2	Shri. Purushottam D. Kodolikar	Trustee, Chairman Management Committee
4	Shri. Mehul D. Thakur	Vice – President
5	Ms. Aparna P. Thakur	Secretary
6	Shri. Shikhar H. Thakur	Treasurer
7	Mrs. Pravina H. Thakur	Trustee
8	Shri Pradeep V. Tendolkar	Trustee
9	Shri. Uttung H. Thakur	Trustee
10	Shri. Rohil J. Thakur	Trustee

## MANAGEMENT SUB COMMITTEE MEMBERS

1	Shri. P.D. Kodolikar
2	Shri. Sanjeev Patil
3	Shri. Sanjay Pingulkar
4	Shri. V. S. Patil
5	Shri. S. N. Padhye
6	Shri. K. P. N. Kutty
7	Principal ( Ex-Officio, Secretary )

### AN APPEAL TO PARENTS / GUARDIANS / STUDENTS

- PARENTS / GUARDIANS / STUDENTS ARE REQUESTED TO GO THROUGH THE PROSPECTUS
  CAREFULLY.
- THE USE OF MOBILE PHONES IN THE COLLEGE CAMPUS IS STRICTLY PROHIBITED. CONSUMPTION OF TABACCO, GUTHKHA, AND ALCOHOL IS STRICTLY PROHIBITED.
- THE STUDENTS SHOULD COMPULSORILY CARRY AND WEAR THEIR IDENTITY CARD INSIDE THE COLLEGE PREMISES.
- EVALUATIONS AND THE EXAMINATIONS WILL BE HELD ACCORDING TO THE NORMS OF UNIVERSITY OF MUMBAI.
- PARENTS / GUARDIANS / STUDENTS ARE REQUESTED TO VISIT COLLEGE WEBSITE www.vivacollege.org FOR FURTHER DETAILS.

### **Rules of Discipline & Proper Conduct**

### **General Rules and Regulations**

- 1.1 Possession and Production of Identity Card: Every bonafide student of the college must wear his / her Identity Card at all times in Premises
- 1.2 A Student who is found in a tutorial batch or a division or a class, which is not meant for him / her, will be severely dealt with.
- 1.3 Students are not supposed to loiter in the corridors or in the college premises any time after classes have commenced.
- 1.4 Complete silence should be observed in the Library, Reading Room and in the classrooms.
- 1.5 Student should not invite any outsider to the college premises, classrooms, library canteen or gymkhana.
- 1.6 No fund collection is to be made by any student without prior written permission from the Principal.

- 1.7 Students should take care of their Personal belongings. The college is not responsible for any loss or damage to, the articles or valuables of the students.
- 1.8 Students should not cause any damage to college property & are expected to take care of it.
- 1.9 The Principal has the power to determine the suitable disciplinary action, for maintaining discipline and proper conduct of the students of the college.
- 1.10 Parents / Guardians are requested to go through the rules of conduct and discipline while allowing their son / daughter / ward to join the college. The students will have to submit an undertaking from their parent / guardian on the prescribed manifest or form given in the admission form that their wards would submit themselves to the normal enforcement of rules of discipline.

### 1.11 Smoking & Drugs:

- A) Smoking is strictly prohibited in the college Premises
- B) Any student having anything to do with the use of narcotic drugs will be expelled from the college and criminal proceeding will be initiated against him / her.
- C) The college being a Tobacco Free Zone, students are strictly prohibited from smoking or consuming any tobacco product in the campus.
- 2 AS PER THE PROVISONS OF PREVENTION OF FOOD ADULTERATION ACT, 1954:

  SALE OR DISTRIBUTION OF GUTKHA AND RELATED FOOD PRODUCTS IS PROHIBITED WITHIN

  100 METERS OF THE PERIPHERY OF ANY EDUCATIONAL, GOVERNMENT OR SEMI –

  GOVERNMENT INSTITUTION ANY VIOLATION OF THE ABOVE WOULD ATTRACT A PENALTY OF

  Rs. 1000/- ALONG WITH 3 YEARS RIGOROUS IMPRISONMENT.
- Expulsion: If, for any reason, in the opinion of the Principal, which shall be final, the
  continuance of the student in the college is deemed detrimental to the best interest of the
  college, the Principal may expel such a student from the college without assigning any reason
  for the decision.

- Students who are found irregular in attendance and / or misbehave in the college, will not be
  admitted to the next semester / subsequent year as the case may be, and the admission of
  such students shall be at discretion of the Principal.
  - 3. ATTENDANCE Ordinance 0.119 Relating to Attendance:
    - For granting the terms in each subject minimum attendance of 75% of the theory lectures, practical and tutorial (wherever prescribed) separately will be required out of the total number of lectures, practical and tutorials in the subject conducted in the term.
    - Similarly, a student who has been given certain class work or assignment has to complete it to the satisfaction of the concerned teacher.
    - A student who is not able to attend his / her classes regularly and / or who is not able to complete his/ her tutorial / project / assignment properly may not be permitted to appear in the examinations as per the University rules.
  - 4. Ordinance 0.125 relating to the keeping of terms to the satisfaction of the Principal of the college: -
    - To keep a term at a college or recognized institution, an undergraduate or post graduate student must complete, to the satisfaction of the Principal or the Head of Institution, the course of study at the college or institution, prescribed for such a term for which such an undergraduate or post graduate student belongs.
    - Leave of Absence: In case students who are not able to attend lectures and/or tutorials for a period exceeding a week in a term, should give intimation to the Principal of the college and take prior permission for such an absence.
    - Absence on medical or other grounds: Absence on medical or other grounds, which is given to the satisfaction of the Principal, may be considered for absence from lectures or tutorials. Yet at the time of granting the terms to a student, his/her class work and other academic inputs would be considered to be of paramount importance. Hence, a student may not be granted his/her terms even if he/she explains his / her absence on medical or other grounds. Absence should be with prior permission. In case it is due to unforeseen circumstances, an application duly supported by a medical certificate in the case of illness, or duly supported by other satisfactory evidence in the case of other reasons, must reach the Principal within a week of such occasion of absence.

### 5. DRESS CODE

Students are expected to wear decent clothes. Visitors and students are strictly prohibited from wearing the following whilst on the college premises.

**Boys: -** Caps, hats, half-pants, shorts, Bermuda, Sleeveless T-shirts.

**Girls : -** Caps, hats, half-pants, shorts, Bermuda, skin tight dresses, revealing dresses, short dresses or short skirts, sleeveless and short tops and pedal pushers, facial piercing other than that for ear-rings and nose-rings strictly prohibited.

### 6. CELL PHONES

Use of cell phones in any form during the offline lectures is strictly prohibited. Due to pandemic situation for some online learning process cell phones shall be permitted. On breach of this discipline, the cell phone holder will be liable for a penalty of Rs. 500 for the first offence. In case of a repetition of the offence, it shall be liable to confiscation.

- 7. Students are required to take adequate care of their belongings while on the college premises. Management will not be responsible for any theft/damage to the same.
- 8. Students are hereby warned not to sit on parapet walls.
- 9. Grievance redressal Cell and Woman Development Cell function in the college as per the directions of University of Mumbai.

### 10. ANTI RAGGING

Maharashtra Prohibition of Ragging Act 1999, which is in force with effect from 15th May 1999, has the following provisions for Action against "Ragging":

- a) Ragging within or outside the college is strictly prohibited.
- b) Whosoever directly or indirectly commits, participates or abets, or propagates ragging within or outside the college, on conviction, be punished with imprisonment for a term upto 2 years and / or penalty which may extend to ten thousand rupees.
- c) Any student convicted of an offence of ragging shall be dismissed from the educational institution and such students shall not be admitted in any other educational institution for a period of 5 years from the date of order of such dismissal.
- d) Whenever any student or , as the case may be, the parent or guardian or a teacher of an educational institution complains, in writing, of ragging to the head of the education institution, the head of the educational institution shall, without prejudice to the foregoing provisions, within seven days on receipt of the complaint, enquire into the matter mentioned in the complaint and if, prima facie, it is found to be true, suspend the student who is accused of the offence, and shall, immediately forward the complaint to the police station having jurisdiction over the area in which the educational institution is

- situated. If there is no substance, prima facie, in the complaint received, he/she shall intimate the fact, in writing to the complainant. The decision of the head of the educational institution shall be final.
- e) If the head of the educational institution fails or neglects to act in the manner specified in section 'd' when a complaint of ragging is made, such person shall be deemed to have abetted the offence and shall, on conviction, be punished under section "b".
- f) Additional punitive provisions stipulated by the latest order of the Supreme Court. Ragging in the College premises is an offence and stern action will be initiated against such offence.
- 11. Discipline and Action: The College attaches great importance to discipline and expects all concerned to observe scrupulously the rules and regulations made for the purpose of healthy discipline, essential for a sound education.
- a) Students shall abide by the rules and regulations, at present, in fore or that may hereafter be made for the smooth working of the college. They shall do nothing either inside or outside the college that will interfere with its orderly administration or affect its public image.
- b) These rules are applicable to all students such as present and repeaters (if they have not intimated that they have discontinued their studies) till the Transference/Leaving Certificate is issued.
- c) Nothing is to be done against the disciplinary rules of the college. The Principal shall decide whether the question involves violation of the rules and the Principal's decision in this respect shall be final.
- d) The powers relating to the disciplinary action in respect of the students of the college will rest with the Principal.
- e) The Principal has the power to determine the suitable disciplinary action, for maintaining discipline and proper conduct of the students of the college.
- f) No class socials/picnics shall be organized independently. All functions including picnics, socials etc. should be organized only with the prior permission and approval of the Principal.
- No person shall be invited to address a college meeting or society without the previous permission of the Principal. Even for college debates and discussions it is necessary to get all the subjects proposed for discussion approved previously and such debates should be held under the charge of a person approved by the Principal. Failure to observe these rules will make the student liable for disciplinary action.

- 12. Women's Development Cell: The constitution of women's development cell is as per the guidelines of Supreme Court in the Vishakha's Judgment and the University of Mumbai. This cell provides a platform for discussing contemporary issues like, Gender equality of all stake holders and so on. It also provides a mechanism to redress the cases of sexual harassment of the students, teaching & non-teaching staff of the college.
- 13. Student's Council Constitution: The student's council of the college consists of Student Representatives from each Class and ladies Representatives. Divisional and Ladies Representatives are selected amongst the student applicants, by a panel of teachers appointed for the purpose. The Chairman and General Secretary of the Student's Council are selected from amongst the Student Representatives. Student's Council organizes various activities for the overall development of Student's personality under the guidance of its Prof-In-Charge and Principal.
- 14. Notice Board: It is the responsibility of every student to read the notices displayed on the notice board by the college office from time to time. They will not be excused and no concession will be given on the grounds of ignorance due to their failure to read the notice.
- 15. College Property: Students are expected not to cause any damage to college property and are expected to take proper care of it. It should be a matter of pride and self-respect for them to keep their college premises neat and tidy. Any damage to college property is a breach of discipline and is likely to be dealt with severely.

### **Admission Rules & Regulations**

Admissions to the Degree College Courses will commence as per the Guidelines of the University of Mumbai which will be displayed on our website www.vivacollege.org from time to time.

- Eligibility and other requirements are mentioned in the Courses section in the Prospectus.
- Reservation norms as per directors of University of Mumbai, Govt, of Maharashtra are strictly followed by the college.
- The Courses, Subjects offered, Marking schemes, Examination pattern are subject to change as per the Guidelines / Circulars issued by University of Mumbai from time to time.

### **Conditions and Eligibility for Admission:**

- Admission granted to the student in this college to any class shall be only for the particular term.
   A student admitted to one class shall not get automatic admission to the higher classes/term after term or year after year.
- Admission to the higher class in the subsequent year shall be at the discretion of the Principal.
   Every student is expected to take fresh admission every year.
- Students who are found to be irregular in attendance and / or bad performance at the college will not be admitted to the 2nd Term / subsequent year as the case may be, and cases of such students shall be at the discretion of the Principal.
- Admission of students to this college to any class is subject to the Rules and Regulations contained
  in this prospectus and that of University of Mumbai framed from time to time.
- The Rules and Regulations of the University will supersede over the Rules, conditions and regulations of the college wherever dispute arises.
  - a) Admission to the college is only for a term and the continuation of admission thereafter is subject to good conduct and progress of the students.
  - b) Students once admitted will be considered as duly enrolled for the whole academic year, subject to his / her good conduct and observance of discipline, unless he / she informs the Principal in writing, his/ her intention to leave the college, latest by, a

fortnight before starting of the Second Term, failing which the college shall be entitled to recover from them the tuition fees of the Second Term.

- The Admission of those students who fail to pay their Second Term Fees within the prescribed time limit will be automatically cancelled and their names will be struck off from the rolls. He / She will however have to pay the fees for the Second Term as per clause 6 (b) above.
- When a student cancels his/ her admission immediately after admission, the fees paid by him/ her shall be refunded according to the rules prescribed by the University.
- Students coming from other schools/ Jr. Colleges in Maharashtra State recognized by the H.S.C.
   Board Mumbai will be confirmed only on receipt of their Transference / Leaving Certificates and a No Objection Certificate confirmed from the Head of the Institution concerned as per the circular no. H.S.C. /2428/304420/12.H.S.Dt. 27th April 1983 of Deputy Director of Education of Mumbai.



### Vishnu Waman Thakur Charitable Trust's Bhaskar Waman Thakur College of Science, Yashvant Keshav Patil College of Commerce, Vidya Dayanand Patil College of Arts,

Viva College Road, Virar (West), Pin - 401 303.

Fees Structu		ademic Year 2023-2024	
CLASS NAME	FEES	CLASS NAME	FEES
F.Y.B.A.	8800	F.Y.B.M.S.	18500
S.Y.B.A	8600	S.Y.B.M.S.	18300
T.Y.B.A.	9100	T.Y.B.M.S.	18700
F.Y.(FTNMP)	53500	F.Y.B.Sc.	13400
S.Y.(FTNMP)	53000	S.Y.B.Sc.	13200
T.Y.(FTNMP)	53600	T.Y.B.Sc.	14000
F.Y.BAMMC	18300	F.Y.B.Sc. [IT]	25000
S.Y.BAMMC	18200	S.Y.B.Sc. (IT)	25300
T.Y.BAMMC	19200	T.Y.B.Sc. (IT)	27500
F.Y.B.Com.	8800	F.Y.B.Sc. (CS)	29400
S.Y.B.Com.	8600	S.Y.B.Sc. (CS)	31200
T.Y.B.Com.	9900	T.Y.B.Sc. (CS)	33500
F.Y.B.Com. (A & F)	18800	F.Y.B.Sc. (BT)	29400
S.Y.B.Com. (A & F)	18600	S.Y.B.Sc. (BT)	31200
T.Y.B.Com. (A & F)	19000	T.Y.B.Sc. (BT)	33500
F.Y.B.Com. (B & I)	19800	F.Y.B.Sc. (Bio-chemistry)	18100
S.Y.B.Com. (B & I)	18600	S.Y.B.Sc. (Bio-chemistry)	17900
T.Y.B.Com. (B & I)	19500	T.Y.B.Sc. (Bio-chemistry)	18700
F.Y.B.Com. (F.M.)	18500	F.Y.B.Sc. (Data Science)	29400
S.Y.B.Com. (F.M.)	17300	S.Y.B.Sc. (Data Science)	31200
T.Y.B.Com. (F.M.)	18200	T.Y.B.Sc. (Data Science)	33500
F.Y.B.Com. (Fin.Mgmt.)	18800	F.Y.B.A. (Culinary Art)	110000
S.Y.B.Com. (Fin.Mgmt.)	18600	S.Y.B.A. (Culinary Art)	110000
T.Y.B.Com. (Fin.Mgmt.)	19500	T.Y.B.A. (Culinary Art)	110000
F.Y.B.Com. (Inv.Mgmt.)	18800	F.Y.B.Com. (E.M.E)	18500
S.Y.B.Com. (Inv.Mgmt.)	18600	S.Y.B.Com. (E.M.E)	18300
T.Y.B.Com. (Inv.Mgmt.)	19500	T.Y.B.Com. (E.M.E)	18700
M.A I	11600	M.Sc. (Anly.Chem)-I	40300
M.A II	12220	M.Sc. (Anly.Chem)-II	41800
M.Com I (Accountancy)	17300	M.Sc. (Bio-analy)-I	50800
M.Com II (Accountancy)	16800	M.Sc. (Bio-analy)-II	52300
M.Com I (Banking & Fin.)	17300	M.Sc. (Org. Chem)-I	40300
M.Com I (Banking & Fin.)	16800	M.Sc. (Org. Chem)-II	41800
M.Com I (Bus. Mgmt)	17300	M.Sc. (Phy-Electr) - 1	29300
M.Com I (Bus. Mgmt)	16800	M.Sc. (Phy-Electr) - II	30500
	44300	M.Sc. (IT) - I	38800
M.Sc. (EVS) - I M.Sc. (EVS) - II	45500	M.Sc. (IT) - II	40000
	-	M.Sc. (CS) - I	38800
M.Sc. (BT) - I	45300 46800	M.Sc. (CS) - II	40000
M.Sc. (BT) - II		Initial Control	-
F.Y.H.S	85000 85000		
S.Y.H.S	85000	E	

## ORDINANCE 5050, Appendix – A

Sr. No.	Nature of Malpractice	Quantum of Punishment
1	Possession of Copying Material	Annulment of the performance of the student at the University / College / Institution examination in full. (Note: This quantum of punishment shall apply also to the following categories of malpractices at Sr. No. (2) To Sr. No. (12) in addition to the punishment prescribed thereat.)
2	Actual copying from the copying material.	Exclusion of the student from University or College or Institution examination for two additional Examinations (BOTH THE STUDENTS.)
3	Possession of another student's answer book.	Exclusion of the student from University or College or Institution examination for two additional Examinations (BOTH THE STUDENTS.)
4	Possession of another student's answer book + Actual evidence of copying therefrom.  Mutual / Mass copying	Exclusion of the student from University or College or Institution examination for two additional examinations (BOTH THE STUDENTS.
5		Exclusion of the student from University or College or Institution examination for three additional examinations .
6	(i) Struggling out or struggling in of answer book as copying material.	Exclusion of the student from University or College or Institution examination for four additional examinations.
	(ii) Struggling in of written answer book based on the question paper set at the examination.	Exclusion of the student from University or College or Institution examination for four additional examinations.
	(iii) Struggling in of written answer book and forging signature of the Jr. Supervisor thereon.	Exclusion of the student from University or College or Institution examination for four additional examinations.
7	Attempt to forge the signature of the Jr. Supervisor on the answer book supplement.	Exclusion of the student from University or College or Institution examination for four additional examinations.
8		Exclusion of the student from University or College or Institution examination for four additional examinations.

9		Exclusion of the student from University or College or Institution examination for four additional examinations.
10	person's connected with the conduct of examinations.	Exclusion of the student from University or College or Institution examination for four additional examinations. (Note: This money shall be credited to the Vice-Chancellor' Fund.)
11		Exclusion of the student from University or College or Institution examination for four additional examinations.
12	Institution examination.	Exclusion of the student from University or College or Institution examination for five additional examinations (Both the students if impersonator is University or College or Institution student.)
	Institution student at S.S.C.	Exclusion of the student from University or College or Institution examination for four additional Examinations.
13		Annulment of the performance of the Student at the University or College or Institution examination in full.
14	the clothes while in	Annulment of the performance of the Student at the University or College or Institution examination in full.
15	categories.	Annulment of the performance of the Student at   the University or College or Institution examination in full and severe punishment depending upon the gravity of the offence.

16. If on previous occasion disciplinary action was taken against a student for malpractice used at examination and he/she is caught again for malpractices used at the examinations, in this event he/she shall be dealt with severely. Enhanced punishment can be imposed on such students. This enhanced punishment may extend to double the punishment provided for the offence, when committed at the second or subsequent examination.

- 17. Practical / Dissertation / Project report Examination: Student involved in malpractices at Practical / Dissertation / Project report examinations shall be dealt with as per the punishment provided for the theory examination.
- 18. The Competent Authority, in addition to the above mentioned punishments, may impose a fine on the student declared guilty.

Note: (The term "Annulment of Performance in full" includes performance of the student at the theory as well as Annual Practical examination but does not include performance at term work. Project work with its term work, oral or Practical and dissertation examinations unless malpractice used there.)

### **Rules & Regulation of Examinations**

### **Examination: Medium of Instruction and Examination:**

- (Vide University Circular No. 187 of dated 3rd April 1979) Students of the B.Com Degrees under the three year degree pattern desirous of answering their paper/ papers through the medium of Marathi, Hindi will be permitted, at their option to do so, though might have received instruction through English Medium for the papers and vice versa.
- Rules of Examinations, Standards of Passing and Award of Classes:
   Ordinances and Regulations with Respect to (CBSGS) For the Programmes under the Faculty of Arts, Commerce & Science with effect from the Academic year 2011-12
- R. 8433: The definitions of the key terms used in the Credit Based Semester and Grading System introduced from the academic year 2011-12 are as under:
- Program: A Program is a set of courses that are linked together in an academically meaningful way and generally ends with the award of a Certificate or Diploma or Degree depending on the level of Knowledge attained and the total duration of study B.Com.
- Course: -A 'course' corresponds to the word 'subject' used in many universities. A course is learning topics taken from a certain knowledge domain, at a certain level. All the learning topics included in a course must necessarily have academic coherence, that is, there must be a common thread linking the various components of a course. A number of linked courses considered together are in practice, a 'program'.

- Module and Unit: A course which is generally an independent entity having its own separate identity, is also often referred to as a 'Module' in today's parlance, especially when we refer to a 'modular curricular structure'. A module may be studied in conjunction with other learning modules or studied independently. A topic within a course is treated as a Unit.
- Credit Point: Credit Point refers to the 'Workload' of a learner and is an index of the number of learning hours deemed for a certain segment of learning. These learning hours may include a variety of learning activities like reading, reflecting, discussing, attending lectures / counseling sessions, watching especially prepared videos, writing assignments, preparing for examinations, etc.Credits assigned for a single course always pay attention to how many hours it would take for a learner to complete a single course successfully. A single course should have, by and large, may be assigned anywhere between 2 to 8 credit points wherein 1 credit is construed as corresponding to approximately 30 to 40 learning hours.

Credit completion and Credit accumulation: Credit completion or Credit acquisition shall be considered to take place after the learner has successfully cleared all the evaluation criteria with respect to a single course. Thus, a learner who successfully completes a 4 CP (Credit Point) course may be considered to have collected or acquired 4 credits. His level of performance above the minimum prescribed level (viz. grades / marks obtained) has no bearing on the number of credits collected or acquired. A learner keeps on adding more and more credits as he completes successfully more and more courses. Thus the learner 'accumulates' course wise credits.

- If the examinee is not satisfied with the marks awarded, he/she may independently apply for Photocopy/ revaluation to the college in the prescribed form within the period and in the manner prescribed. This revaluation facility shall be for theory papers only of all the examinations conducted by the college on behalf of the University for the respective current session. A candidate can apply for the revaluation of the answer book of the subject only if he/she has secured at least 20% of the total marks in that subject or 40% of the marks required for passing in the said subject, whichever is less or the grade equivalent to the above criteria where grades are assigned to the theory papers.
- The non-refundable prescribed fees of Rs.100/- for Photocopy & 500/- for Revaluation per subject per answer book for the purpose shall be paid by the examinee. The said fee shall

be remitted by cash or by D.D. drawn in favour of the Principal of respective college to which the candidate has registered for the said course in the current session. The examinees from the reserved categories shall be given fifty per cent (50%) concession, provided a certified copy of the caste certificate is enclosed.

• The prescribed application form for revaluation of answer book duly filled in and signed by the applicant examinee only is to be submitted to the concerned college office along with the statement of marks, prescribed fees as above and question paper/s for which he/she intends to apply for revaluation, within seven (07) working days from the date of the declaration of the result of the respective examination or from the date on which the college issued the statement of marks, whichever is later. Incomplete form and form not accompanied by relevant documents may be rejected without assigning any reason whatsoever.

### **Decisions Regarding Credit, Grading & Semester System:**

Decisions of University Grants Commission(UGC) for introducing the semester and choice based credit system in all central, state and deemed universities and institutions of higher learning in the country under the Eleventh Five –Year Plan.(D.O.NO.F.1-2/2008-XI Plan dated January 31,2008 from the Chairman, UGC) The decision of implementation of Credit & Grade point system has been passed by the Academic Council at its meeting held on 10th June, 2010 & subsequently the Management Council gave the concurrence at its meeting held on 18th July, 2010, after suggesting minor changes with the help of Deans of the concerned faculties and resolved to implement it from the Academic Year 2011-12.

### **Concept of Credit System:**

Involves breaking down the curriculum into measurable units that can be combined to get a degree / diploma. • A 'Credit' is generally a 'Value' used to measure a students work load in terms of learning time required to complete course units, resulting in learning outcomes. Credit is used in higher education to summarized and describe an amount of learning. The number of credits awarded to a learner is determined by Credit Value or Credit Points assigned to a particular course. It is a way of expressing the 'learner's workload'. (Student's) It affords more flexibility to the learner's allowing them to choose interdisciplinary courses. One (01) Credit is thirty (30) learning hours. Credit once gained cannot be lost.

### **Types of Credit Transfer:**

Lateral or horizontal: - Credit transfer from one programme to another programme of same-level e.g. B.A. (Mass Media) from one University to B.M.M. of Mumbai University. Vertical: - It is also referred as 'Career Laddering'. Credit Transfer from one programme to another programme of higher level. It provides an upward mobility to learner. E.g. Diploma in Engineering gets direct admission to the second Year Engineering of UG programme.

Intra-institutional Credit Transfer: -When the process of Credit Transfer takes place within a University or Institution called as Intra Institutional Credit Transfer.

Inter-Institutional Credit Transfer: -When the process of Credit Transfer takes place across two or more University or Institution called as Inter-Institutional Credit Transfer.

### **Grade Cards:**

• The result gazetteer and the format of the Grade Cards for the semesters conducted by colleges on behalf of the University will be Uniform for all the Colleges/ Institutions. The Grade Cards will be printed along with the marks shown for all the concerned courses in the programme. The Grade Cards will be issued to the learners who will qualify all the courses with Credit Earned and the remark as 'SUCESSFUL'. The SGPA will be calculated only for the learners who will qualify in all the courses and accordingly the Grade will be awarded to them. In case a learner/s is not qualified in a particular course/s of a programme, he/she shall be allowed to accumulate the credits of qualified courses only of the said programme and the Grade Card will be issued with 'Credit Accumulate' and the remark as 'UNSUCESSFUL'

Implementation: The Semester, Credit and Grading system has been implemented for all the Under Graduate (UG) programmes under the faculty of Arts, Commerce and Science from the academic year 2011-12. The system will be implemented for semester –I for the newly admitted learner (students) and it will be subsequently implemented. The Semester, Credit and Grading System will be implemented for the Post Graduate (PG) programmes under the Faculty of Arts, Commerce and Science after the decision of the Academic Council.

## **CONVENTIONAL COURSES OFFERED**

FACULTY	DEGREE
Arts	B.A. in Economics, English Literature, History, Political Science, Psychology
Commerce	B. Com. (Bachelor of Commerce)
Science	B.Sc. in Chemistry, Physics, Mathematics, Botany, Zoology

## **SELF- FINANCE COURSES OFFERED**

FACULTY	DEGREE		
Arts	Bachelor of Arts in Multimedia and mass communication (BAMMC), Film Television & New Media Production (FTNMP), Culinary Arts		
Science	B. Sc. Biotechnology, Computer Science, Information Technology, Biochemistry, Data Science, Hospitality Studies		
Commerce	B. Com. in Banking & Insurance (BCBI), Accounting & Finance(BCAF), Financial Markets(BFM), Financial Management (BFMG), Investment Management (BIM), Environment Management & Economics(BEME), Management Studies(BMS)		

## **POST GRADUATE COURSES**

M.A. Economics	M.Sc. (Biotechnology)
M. Com. (Accountancy)	M.Sc. (Bio analytical Sciences)
M. Com. (Banking & Finance)	M. Sc. (Chemistry)
M.Com.(Business Management)	M. Sc. (Analytical Chemistry)
M.Sc. (Information Technology)	M.Sc. (Environmental Sciences)
M. Sc. (Computer Science)	M. Sc. (Physics)

## **INTAKE CAPACITY (COURSEWISE)**

## **UNDER GRADUATE COURSES (FIRST YEAR)**

Sr. No.	Name of Programme	No. of Seats Available
1	B.A.	360
2	B.A.(Film, Media & Television Production)	60
3	B.A.M.M.C.	180
4	B. A Culinary Arts	60
5	B.Com-General	1800
6	B. Com Accounting & Finance	240
7	B. Com Banking & Insurance	180
8	B. Com Financial Markets	180
9	B. Com Financial Management	60
10	B. Com Investment Management	60
11	B. Com Environmental Management & Economics	60
12	B.M.S.	240
13	B. Sc	360
14	B. Sc Computer Science	144
15	B. Sc Information Technology	360
16	B. Sc Biotechnology	70
17	B. Sc Biochemistry	35
18	B. Sc Data Science	60
19	B.Sc Hospitality Studies	120

## POST GRADUATE COURSES (PART I)

Sr. No.	Name of Programme	No. of Seats Available
1	M.A. (Economics)	60
2	M.Com-Accountancy	60
3	M. Com - Banking & Finance	60
4	M.Com - Business Management	60
5	M.Sc. – IT	40
6	M.Sc. – Computer Science	20
7	M. Sc Biotechnology	40
8	M. Sc Organic Chemistry	40
9	M. Sc. – Physics	40
10	M. Sc Environmental Science	20
11	M. Sc Analytical Chemistry	40
12	M. Sc Bio analytical Sciences	20

## **ARTS FACULTY**

## Bachelor of Arts (Marathi & English medium)

Eligibility: H.S.C. Passed in any Faculty

An academic year is divided into two semesters and an examination is conducted at the close of each semester. Each paper will carry 100 marks, Theory Semester Pattern.

### **Passing Standards:**

Total Marks: Min 40 out of 100

FC Subject- Theory paper min 30 out of 75 & internal assessment min 10 out of 25

### F.Y.B.A. – List of Subject

	Semester I	Semester II		
Sr. No.	Subject	Credits	Subject	Credits
1.	Foundation Course Regular/NSS/NCC- I	02	Foundation Course Regular/NSS/NCC- I	02
2.	Communication Skills in English	02	Communication Skills in English	02
3.	Hindi Compulsory/ Marathi Compulsory	02	Hindi Compulsory/ Marathi Compulsory	02
4.	Economics Paper-I (Micro Economics)	03	Economics Paper-II (Micro Economics)	03
5.	English Literature Paper- I (Introduction to Prose and Fiction)	03	English Literature Paper- I (Introduction to Prose and Fiction)	03
6.	Political Science Paper-I (Indian Political System)	03	Political Science Paper-I (Indian Political Process)	03
7.	History Paper I History of Modern India (1857-1947)	03	History Paper I History of Modern India (Society and Economy)	03
8.	Psychology Paper-I (Fundamentals of Psychology - I)	03	Psychology Paper-I (Fundamentals of Psychology -II)	03

## S.Y.B.A. – List of Subjects

	Semester III		Semester IV		
Sr. No.	Subject	Credits	Subject	Credits	
1.	Foundation Course Regular/NSS/NCC- II	02	Foundation Course Regular/NSS/NCC- II	02	
2.	Applied components- Mass Communication (English)/ Demography (Marathi)	02	Applied components- Mass Communication (English)/ Demography(Marathi)	02	
3.	Optional Subject History II- Landmarks in World history (1300-1945)		Optional Subject History II- Landmarks in World history (1300-1945)	03	
4.	History III-History of Ancient India (From earliest time to 1000A.D.)	03	History III-History of Ancient India (From earliest time to 1000A.D.)	03	
5.	Economics II-Macro Economics	03	Economics II-Macro Economics	03	
6.	English Literature II - Indian Literature	03	English Literature II - Indian Literature	03	
7.	Economics III-Public Finance	03	Economics III-Indian Economy	03	
8.	English Literature III - American Literature	03	English Literature III - American Literature	03	
9.	Political Science II- Principles & Concept of Political Theory	03	Political Science II- Political Values & Ideologies	03	
10.	Political Science III- Public Administration	03	Political Science III- Indian Administration	03	
11.	Psychology - II (Social Psychology - I)	03	Psychology - II (Social Psychology - II)	03	
12.	Psychology - III (Developmental Psychology - I)	03	Psychology - III (Developmental Psychology - II)	03	

### T.Y.B.A. SUBJECT LIST

### **GROUP: - ENTIRE ECONOMICS**

SEM V	SEM VI			
Paper No	Subject Name	Credit	Subject Name	Credit
VII	MICROECONOMICS –III	04	MACROECONOMICS-III	04
VIII	ECONOMICS OF DEVELOPMENT	04	INTERNATIONAL ECONOMICS	04
IX	INDUSTRIAL AND LABOUR ECONOMICS	03	INDUSTRIAL AND LABOUR ECONOMICS	03
Х	RESEARCH METHODOLOGY	04	RESEARCH METHODOLOGY	04
ΧI	ENVIRONMENTAL ECONOMICS	04	DEVELOPMENT THEORY AND EXPERIENCE	04
XII	HISTORY OF ECONOMIC THOUGHT	03	INTERNATIONAL TRADE, POLICY AND PRACTICE	03

### **GROUP: - ECONOMICS AND POLITICS**

SEM V	SEM VI			
Paper No	Subject Name	Credit	Subject Name	Credit
VII	MICROECONOMICS –III	04	MACROECONOMICS-III	04
VIII	ECONOMICS OF DEVELOPMENT	04	INTERNATIONAL ECONOMICS	04
IX	INDUSTRIAL AND LABOUR ECONOMICS	03	INDUSTRIAL AND LABOUR ECONOMICS	03
IV	WORLD POLITICS	04	INDIA IN WORLD POLITICS	04
V	WESTERN POLITICAL THOUGHT		INDIAN POLITICAL THOUGHT	04
VI	POLITICS OF MODERN MAHARASHTRA	03	DETERMINANTS OF POLITICSOF MAHARASHTRA	03

### **GROUP: - ECONOMICS AND HISTORY**

SEM V		SEM VI		
Paper No	Subject Name	Credit	Subject Name	Credit
VII	MICROECONOMICS –III	04	MACROECONOMICS-III	04
VIII	ECONOMICS OF DEVELOPMENT	04	INTERNATIONAL ECONOMICS	04
IX	INDUSTRIAL AND LABOUR ECONOMICS	03	INDUSTRIAL AND LABOUR ECONOMICS	03
IV	HISTORY OF MEDIEVAL INDIA (1000 CE – 1526 CE)	04	HISTORY OF MEDIEVAL INDIA (1526 CE – 1707 CE)	04
V	HISTORY OF MODERN MAHARASHTRA (1818 CE-1960 CE)	04	HISTORY OF CONTEMPORARY INDIA (1947 CE- 2000 CE)	04
VI	INTRODUCTION TO ARCHAEOLOGY	03	INTRODUCTION TO MUSEOLOGY AND ARCHIVAL SCIENCE	03

### **GROUP: - HISTORY- POLITICS**

SEM V		SEM VI		
Paper No	Subject Name	Credit	Subject Name	Credit
IV	HISTORY OF MEDIEVAL INDIA (1000 CE – 1526 CE)	04	HISTORY OF MEDIEVAL INDIA (1526 CE – 1707 CE)	04
V	HISTORY OF MODERN MAHARASHTRA (1818 CE-1960 CE)	04	HISTORY OF CONTEMPORARY INDIA (1947 CE- 2000 CE)	04
VI	INTRODUCTION TO ARCHAEOLOGY	03	INTRODUCTION TO MUSEOLOGY AND ARCHIVAL SCIENCE	03
IV	WORLD POLITICS	04	INDIA IN WORLD POLITICS	04
V	WESTERN POLITICAL THOUGHT	04	INDIAN POLITICAL THOUGHT	04
VI	POLITICS OF MODERN MAHARASHTRA	03	DETERMINANTS OF POLITICSOF MAHARASHTRA	03

### **GROUP: - ENGLISH LITERATURE AND HISTORY**

SEM V			SEM VI	
Paper No	Subject Name	Credit	Subject Name	Credit
IV	16 <sup>TH</sup> AND 18 <sup>TH</sup> CENTURY ENGLISH LITERATURE- I	04	16 <sup>TH</sup> AND 18 <sup>TH</sup> CENTURY ENGLISH LITERATURE- II	04
V	LITERARY CRITICISM - I	04	LITERARY CRITICISM - II	04
VI	GRAMMAR AND ART OF WRITING - I	03	GRAMMAR AND ART OF WRITING - II	03
IV	HISTORY OF MEDIEVAL INDIA (1000 CE – 1526 CE)	04	HISTORY OF MEDIEVAL INDIA (1526 CE – 1707 CE)	04
V	HISTORY OF MODERN MAHARASHTRA (1818 CE-1960 CE)	04	HISTORY OF CONTEMPORARY INDIA (1947 CE- 2000 CE)	04
VI	INTRODUCTION TO ARCHAEOLOGY	03	INTRODUCTION TO MUSEOLOGY AND ARCHIVAL SCIENCE	03

**GROUP: - ENGLISH LITERATURE AND POLITICS** 

SEM V		SEM VI		
Paper No	Subject Name	Credit	Subject Name	Credit
IV	16 <sup>TH</sup> AND 18 <sup>TH</sup> CENTURY ENGLISH LITERATURE- I	04	16 <sup>TH</sup> AND 18 <sup>TH</sup> CENTURY ENGLISH LITERATURE- II	04
V	LITERARY CRITICISM - I		LITERARY CRITICISM - II	04
VI	GRAMMAR AND ART OF WRITING  – I		GRAMMAR AND ART OF WRITING - II	03
IV	WORLD POLITICS	04	INDIA IN WORLD POLITICS	04
V	WESTERN POLITICAL THOUGHT	04	INDIAN POLITICAL THOUGHT	04
VI	POLITICS OF MODERN MAHARASHTRA	03	DETERMINANTS OF POLITICSOF MAHARASHTRA	03

## **GROUP: - ENGLISH LITERATURE AND ECONOMICS**

SEM V		SEM VI		
Paper No	Subject Name	Credit	Subject Name	Credit
IV	16 <sup>TH</sup> AND 18 <sup>TH</sup> CENTURY ENGLISH LITERATURE- I	04	16 <sup>TH</sup> AND 18 <sup>TH</sup> CENTURY ENGLISH LITERATURE- II	04
V	LITERARY CRITICISM - I	04	LITERARY CRITICISM - II	04
VI	GRAMMAR AND ART OF WRITING - I	03	GRAMMAR AND ART OF WRITING - II	03
VII	MICROECONOMICS –III	04	MACROECONOMICS-III	04
VIII	ECONOMICS OF DEVELOPMENT	04	INTERNATIONAL ECONOMICS	04
IX	INDUSTRIAL AND LABOUR ECONOMICS	03	INDUSTRIAL AND LABOUR ECONOMICS	03

### **GROUP: - ENGLISH LITERATURE AND PSYCHOLOGY**

SEM V		SEM VI		
Paper No	Subject Name	Credit	Subject Name	Credit
IV	16 <sup>TH</sup> AND 18 <sup>TH</sup> CENTURY ENGLISH LITERATURE- I	04	16 <sup>TH</sup> AND 18 <sup>TH</sup> CENTURY ENGLISH LITERATURE- II	
V	LITERARY CRITICISM - I	04	LITERARY CRITICISM - II	04
VI	GRAMMAR AND ART OF WRITING - I	03	GRAMMAR AND ART OF WRITING - II	03
IV	PSYCHOLOGICAL TESTING AND STATISTICS - I	04	PSYCHOLOGICAL TESTING AND STATISTICS - II	04
V	ABNORMAL PSYCHOLOGY - I	04	ABNORMAL PSYCHOLOGY - II	04
VI	INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY -	03.5	INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY - II	03.5

## **BA (Film, Television & New Media Production)**

### 3 Years Integrated Program -Six Semesters

Eligibility: 12<sup>th</sup> Pass (Arts, Commerce and Science)

No. of Seats: 60

Exam: Written exam 60 Marks and 40 Marks practical (assignments/projects, tests and class performance)
Professional options: Writer, Director, Editor, Sound designer, Production Manager/Designer, various opportunities in Television channels & Film companies

### **Coursed offered**

B.A. (Film, Television & New Media production)

### **Bachelor of Arts**

(Film, Television & New Media Production)

A candidates for being eligible for admission to the three-year integrated course leading to the Degree of BA (Film, Television & New Media Production), shall be required to have passed the Higher Secondary School Certificate Examination (Academic or Vocational Stream) conducted by different Divisional Boards of Maharashtra State Board of Secondary and Higher Secondary Education or an Examinations of any another University or Body recognized as equivalent thereof by the Senate of the University of Mumbai

Eligibility for admission: 12th pass (Any stream)

## B.A. (Film, Television, and New Media production) FYFT&NMP

No.of courses	Semester1	Credit	No of courses	Semester2	Credit
1	Effective communication Skills	3	1	Basics of Post Production	3
2	Introduction to History of Art/Storytelling	3	2	History of Non-Fiction Films	3
3	Initiation to Literature &Creative Writing	3	3	Writing For Visual Media	3
4	Basics of Photography	3	4	Importance of Sound and Sound SFX	3
5	Film Appreciation - Genres	3	5	Basics of Cimematography-1	3
6	Graphic Designing (Photoshop,Illustrator,etc)	5	6	Practical Filmmaking 1 (Only Non-Fiction Film)	5
	Total credit	20		Total credit	20

### SYFT&NMP

No of courses	Semester3	Credit	No of courses	Semester4	Credit
1	Introduction of Direction for TV	3	1	Introduction to Direction for Films	3
2	Basics of Cinematography-2	3	2	Basics of Visual Communication/Film	3
3	Understanding TV Formats and Genres	3	3	Convergence and Basics of Web	3
4	Concepts of Storyboarding	3	4	Concepts of Post Production and Computer Graphics	3
5	Graphic and Post Production(Flash, Editing Software, After Effects)	3	5	Drama Production/Writing for Visual	3
6	TV Production/Ad Filmmaking	5	6	Intermediate Practical Filmmaking	5
	Total credit	20		Total credit	20

### TYFT&NMP

No of courses	Semester5	Credit	No of courses	Semester6	Credit
1	Laws Related to Films, TV & Internet	3	1	Final Project-Short Film(10 to 15 minutes)	20
2	New Media Theory and Practice(With Advance Web Design and app Making)	3			
3	Aspects of Media Production(Set Design, Makeup, etc, Line Production, Logistics, etc)/Understanding Indian Contemporary Cinema	3			
4	Introduction to Production Management	3			
5	Trends and Technology in Film and Television(will include overview of media)	3			
6	Advance Practical Filmmaking	5			
	Total credit	20		Total credit	20

<sup>#</sup> Subject to change as per University of Mumbai guidelines

# BA in Multimedia and Mass Communication (BAMMC)

### **English & Marathi**

### **Objectives:**

- To produce graduates with strong academic knowledge and professional skills.
- To produce good students who contribute positively to the society and be the watchdog for the society.
- The course is designed to educate students for significant careers in media world.

**Eligibility:** Passed H.S.C with minimum 40% Examination (Arts, Commerce, Science) of Maharashtra State Board of Higher Secondary Education or any other examination recognized as equivalent thereto.

**Structure:** This is a semester pattern Degree in which examination is conducted & result is declared at the end of each semester. Each subject has an examination of 100 marks comprising 25 marks of Internal Assessment (Project, Presentation and Case studies etc.) & 75 marks of Theory paper.

Passing Standard: The learners to pass a course shall have to obtain a minimum of 40% marks in aggregate for each course where the course of Internal Assessment and Semester End Examination. The learners shall obtain a minimum of 40% marks (i.e. 10 out of 25) in the internal Assessment and 40% marks in the Semester End Examination (i.e. 30 out of 75) separately, to pass the course and minimum of grade E to pass a particular semester. A learner will be said to have passed the course if the learner passes the internal Assessment and Semester End Examination together.

FYBAMMC SEMESTER – I								
Title	Credit	Paper	Name of the Course (English)	Name of the Course (Marathi)	Course Code			
AECC	03	01	Effective Communication - I	प्रभावी सवांद कौशल्य १	BAMMEC-101			
AEEC	02	02	Foundation Course - I	पायाभूत अभ्यास १	BAMMFC-102			
DSC	04	03	Visual Communication	दृश्य संवाद	BAMMVC-103			
DSC CORE I	E I 08 (4×2)	04	Fundamental of Mass Communication	जण संवादाची मुलतत्वे	BAMMFMC-104			
DSC CORE II		05	Current Affairs	चालू घडामोडी	BAMMCA-105			
DSE	03	06	History of Media	माध्यमांचा इतिहास	ВАММНМ-106			
	20							

FYBAMMC SEMESTER – II								
Title	Credit	Paper	Name of the Course (English)	Name of the Course (Marathi)	Course Code			
AECC	03	01	Effective Communication	प्रभावी सवांद कौशल्य २	BAMMEC-201			
AEEC	02	02	Foundation Course - II	पायाभूत अभ्यास २	BAMMFC-202			
DSC	04	03	Content Writing	आशय लेखन	BAMMCW-203			
DSC CORE III	(4×2)= 08	04	Introduction to Advertising	जाहिराती क्षेत्राची ओळख	BAMMID-204			
DSC CORE IV		05	Introduction to Journalism	पत्रकारिता क्षेत्राची ओळख	BAMMIJ-205			
DSE	03	06	Media, Gender and Culture	माध्यम, लिंगभाव आणि संस्कृती	BAMMMGC-206			
	20			_				

#### **SYBAMMC SEMESTER – III** Name of the Course Name of the Course Title Credit **Course Code** Paper (English) (Marathi) Learner should choose any one out of following elective courses विद्यार्थ्यांनी पुढीलपैकी कोणताही एक विषय अभ्यासासाठी निवडायचा आहे. BAMMC इलेक्ट्रॉनिक मीडिया १ Electronic Media-I EM-3011 थिएटर आणि जन संवाद BAMMC Theatre and Mass TMC-Communication-I 3012 **AEEC** 02 01 रेडिओ प्रोग्रॅम प्रोडक्शन BAMMC Radio Program Production-I RPP-3013 मोशन ग्राफिक्स आणि Motion Graphics and Visual BAMMC व्हिज्युअल इफेक्ट १ Effects -I MGV-3014 Corporate कॉर्पोरेट संवाद आणि Communication BAMMC CCPR-DSC 02 जन संपर्क and DSC-C1 302 **Public Relations** $(4 \times 3) =$ माध्यम अभ्यास BAMMC 12 **DSC** 03 **Media Studies** DSC -C2 MS-303 फोटोग्राफीची तोंड Introduction to DSC-C3 **DSC** 04 BAMMC IP-304 ओळख Photography BAMMC चित्रपट संवाद १ **DSE** 04 05 Film Communication-I FCO-305 आणि संगणक BAMMC **Practical** 02 06 Computers and Multimedia-I मल्टिमीडिया १ CMM-306

#### **SYBAMMC SEMESTER - IV** Name of the Course Name of the Course Title Credit Paper Course Code (English) (Marathi) Learner should choose any one out of following elective courses पुढीलपैकी एक विषय अभ्यासासाठी असेल (जो विषय तुम्ही आधीच्या सत्रात निवडलेला असेल तोच) BAMMC EM-इलेक्ट्रॉनिक मीडिया 2 AEEC 02 **ELECTRONIC MEDIA-II** 4011 थिएटर आणि जन संवाद BAMMC Theatre Mass TMCand Communication-II 4012 01 रेडिओ प्रोग्रॅम प्रोडक्शन BAMMC Radio Program Production-II RPP-4013 मोशन ग्राफिक्स आणि Motion Graphics and Visual BAMMC व्हिज्युअल इफेक्ट 2 Effects -II MGV-4014 माध्यमांसाठी लेखन BAMMC WEM-Writing and **DSC** 02 आणि संपादन DSC -D1 Editing 402 for Media माध्यम कायदे आणि $(4 \times 3) =$ Media Laws BAMMC 12 नीतिमूल्ये **DSC** 03 and Ethics DSC -D2 MLE-403 Mass BAMMC MMR-Media जन माध्यम संशोधन **DSC** 04 Research DSC-D3 404 Film BAMMC चित्रपट संवाद 2 DSE 04 05 Communication DSC-D4 FCO-405 संगणक आणि BAMMC Computers and 02 06 **Practical** मल्टिमीडिया 2 CMM-406 Multimedia-II DRG

# TYBAMMC SEMESTER - V JOURNALISM

		T	
Course Code	Credits	Course Name (English)	Course Name (Marathi)
COMPULSORY-CORE	04X2=08 DRG	(Discipline Related Generic)	अभ्यासक्रमा मधील सर्वसामान्य विषय
BAMMC DRG-501	04	1.Reporting	बातमीदारी
BAMMC DRG-502	04	2.Investigative Journalism	शोध पत्रकारिता
ELECTIVES	03X04=12	DSE 1 B (Discipline Specific Electives) (Elect Any Four Courses From Below)	DSE 1 B (अभ्यासक्रमा नुसार विशिष्ट निवड) (खालील पैकी कोणतेही चार विषय निवडणे)
BAMMC EJFW 1B501		1.Features and Writing For Social Justice	१. सामाजिक न्यायासाठी वृत्तलेख आणि लेखन
BAMMC EJWS 1B502		2.Writing and Editing Skills	२. लेखन आणि संपादन कौशल्ये
BAMMC EJGM 1B503		3.Global Media and Conflict Resolution	३. जागतिक माध्यमे आणि संघर्ष निराकरण
BAMMC EJBF 1B504		4.Business and Financial Journalism	4.व्यवसाय आणि वित्तीय पत्रकारिता
BAMMC EJMJ 1B505		5.Mobile Journalism and New Media	५. मोबाईल पत्रकारिता आणि नव माध्यमे
BAMMC EJNM 1B506		6.News Media Management	६. वृत्त माध्यमांचे व्यवस्थापन
BAMMC EJJP 1B507		7.Journalism and Public Opinion	७. पत्रकारिता आणि जनमत
BAMMC EJML 1B508		8.Media Laws and Ethics	८. माध्यम कायदे आणि नीतिशास्त्र
TOTAL	20		

TYBAMMC SEMESTER - V ADVERTISING			
Course Code	Credits	Course Name (English)	Course Name (Marathi)
COMPULSORY-CORE	04X2=08 DRG	(Discipline Related Generic)	अभ्यासक्रमा मधील सर्वसामान्य विषय
BAMMC DRGA-501	04	1.Copy Writing	१.मसुदालेखन (कॉपीराइटिंग)
BAMMC DRGA-502	04	2. Advertising & Marketing Research	२. जाहिरात आणि विपणन संशोधन
ELECTIVES	03X04=12	DSE 1 B (Discipline Specific Electives) (Elect Any Four Courses From Below)	DSE 1 B (अभ्यासक्रमा नुसार विशिष्ट निवड) (खालील पैकी कोणतेही चार विषय निवडणे)
BAMMC EAGI 1501		1.Globalization & International Advertising	१. जागतिकीकरण आणि आंतरराष्ट्रीय जाहिरात
BAMMC EABB 1502		2.Brand Building	२. ब्रॅंड बिल्डिंग
BAMMC EAAM 1503		3.Agency Management	३. संस्था व्यवस्थापन
BAMMC EAAP 1504		4.Account Planning & Advertising	४. खाते नियोजन आणि जाहिरात
BAMMC EASM 1505		5.Social Media Marketing	५. सोशल मीडिया विपणन
BAMMC EADM 1506		6.Direct Marketing & E- Commerce	६. थेट विपणन आणि ई- कॉमर्स
BAMMC EACB 1507		7.Consumer Behaviour	७. ग्राहक वर्तवणुक
BAMMC EADF 1508		8.Documentary & Ad Film Making	८. माहितीपट आणि जाहिरात चित्रपट निर्मिती
TOTAL	20		

### TYBAMMC SEMESTER - VI JOURNALISM

Course Code	Credits	Course Name (English)	Course Name (Marathi)
COMPULSORY-CORE	04X2=08 DRG	(Discipline Related Generic)	अभ्यासक्रमा मधील सर्वसामान्य विषय
BAMMC DRG-601	04	1. Digital Media	१. डिजिटल मीडिया
BAMMC DRG-602	04	2. Newspaper And Magazine Design (Project)	२. वृत्तपत्र आणि मासिक डिझाइन (प्रकल्प)
ELECTIVES	03X04=12	DSE 1 B (Discipline Specific Electives) (Elect Any Four Courses From Below)	DSE 1 B (अभ्यासक्रमा नुसार विशिष्ट निवड) (खालील पैकी कोणतेही चार विषय निवडणे)
BAMMC EJCI 2B601		1.Contemporary Issues	१. समकालिन प्रश्न
BAMMC EJLJ2B602		2.Lifestyle Journalism	२. जीवनशैली पत्रकारिता
BAMMC EJPT2B603		3. Photo And Travel Journalism	३. फोटो आणि ट्रॅव्हल जर्नालिझम
BAMMC EJMJ 2B6504		4. Magazine Journalism	४. मासिक पत्रकारिता
BAMMC EJSJ 2B605		5.Sports Journalism	५. क्रीडा पत्रकारिता
BAMMC EJCR 2B606		6.Crime Reporting	६. गुन्हेगारी पत्रकारिता
BAMMC EJFNF 2B607		7.Fake News And Fact Checking	७. फेक बातम्या आणि वस्तुस्थिती तपासणे
BAMMC EJTJ 2B608		8.Television Journalism	८. टेलिव्हिजन पत्रकारिता
	20		

TYBAMMC SEMESTER	-	VI
ADVEDTISING		

Course Code	Credits	Course Name (English)	Course Name (Marathi)	
COMPULSORY-CORE	04X2=08 DRG	(Discipline Related Generic)	अभ्यासक्रमा मधील सर्वसामान्य विषय	
BAMMC DRGA-601	04	1. Digital Media	१. डिजिटल माध्यमे	
BAMMC DRGA-602	04	2. Advertising Design	२. जाहिराती डिझाइन	
ELECTIVES	03X04=12	DSE 1 B (Discipline Specific Electives) (Elect Any Four Courses From Below)	DSE 1 B (अभ्यासक्रमा नुसार विशिष्ट निवड) (खालील पैकी कोणतेही चार विषय निवडणे)	
BAMMC EAAC 2601		1.Advertising In Contemporary Society	१. समकालीन समाजातील जाहिराती	
BAMMC EABM 2602		2.Brand Management	२. ब्रॅंड व्यवस्थापन	
BAMMC EAMP 2603		3.Media Planning & Buying	३. माध्यम नियोजन आणि खरेदी	
BAMMC EAAS 2604		4.Advertising & Sales Promotion	४. जाहिराती आणि विक्री प्रमोशन	
BAMMC EARM 2605		5.Rural Marketing & Advertising	५. ग्रामीण विपणन आणि जाहिराती	
BAMMC EARE 2606		6.Retailing & Merchandising	६. रिटेलिंग आणि मर्चैंडाइजिंग	
BAMMC EAEM 2607		7.Entertainment & Media Marketing	७. मनोरंजन आणि माध्यम विपणन	
BAMMC EATP 2608		8.Television Program Production	८. टेलिव्हिजन प्रोग्राम प्रॉडक्शन	
TOTAL	20			

This Degree covers in depth subjects related to Advertising, Journalism, and Public Relations & Mass Communication. The students have an option of opting for either Journalism or Advertising in the Third Year. The Department has a well-equipped Audio-Visual laboratory fitted with LCD Projector, television and Music-System. The students utilize these facilities to keep themselves conversant eith the latest development around the world in the field of media & Advertising. Seminars related to Cinema, Journalism and Advertising are regularly conducted by the department.

#### For Advertising:

There is a wide scope in the field Advertising. A student completing BAMMC with specialization in Advertising can work in as:

- 1. Copywriter
- 2. Graphic Designer
- 3. Layout Designer
- 4. Media Planner
- 5. Visualizers
- 6. Art Director
- 7. Setting up a new Advertising Agency
- 8. Event planner
- 9. Creative director

#### For Journalism:

A student completing BAMMC with specialization in Journalism can work in following areas:

- 1. Reporting
- 2. Editing
- 3. Broadcast Journalism
- 4. Public Relations
- 5. Creative Writer
- 6. Feature Write
- 7. Technical Writer.
- 8. Online Journalism
- 9. Content Writer
- 10. Photographer
- 11. Video Editor
- 12. News Anchor.

## **COMMERCE FACULTY**

#### **B.Com Programme:**

Eligibility, Structure, Passing standards: -

**Eligibility**: Candidate for being eligible for admission to the third year degree course leading to Bachelor of Commerce must have passed the Higher Secondary School Certificate (Std. XII) examination conducted by the different divisional boards of the Maharashtra State Board of Secondary and Higher Secondary education.

#### OR

Must have passed Higher Secondary School Certificate (Std. XII) examination with vocational subjects / minimum competency based vocation course conducted by the different divisional boards of the Maharashtra State Board of Secondary and Higher Secondary education.

OR

Must have passed examination of another University or Board recognized as equivalent to Higher Secondary School Certificate (Std. XII) examination.

**Structure:** An academic year is divided into two semesters and an examination is conducted at the close of each semester. Each paper will carry 100 marks, Theory pattern.

#### **Passing Standards:**

Total Marks: Min 40 out of 100

FC Subject- Theory paper min 30 out of 75 & internal assessment min 10 out of 25

Under Choice Based Credit, Grading and Semester System Course Structure F.Y.B.Com (To be implemented from Academic year 2016-2017)

### F.Y. B. Com. - List of subjects

No. of Course	Semester I	Credits	No. of Courses	Semester II	Credits
1	Elective Course (EC)		1	Elective Courses (EC)	
1A	Discipline Specific Elective (DS	E Courses	1A	Discipline Specific Elective (DSE) C	Courses
1	Accountancy and Financial Management – I	03	1	Accountancy and Financial Management – II	03
1B	Discipline Related Elective (DF Course	RE)	1B	Discipline Related Elective (DRE) (	Course
2	Commerce – I	03	2	Commerce – II	03
3	Business Economics – I	03	3	Business Economics – II	03
2	Ability Enhancement Courses	(AEC)	2	Ability Enhancement Courses (AEC)	
2A	Ability Enhancement Compulsory Courses (AECC)	ent	2A	Ability Enhancement Com Courses (AECC)	pulsory
4	Business Communication – I	03	4	Business Communication – II	03
5	Environmental Studies I	03	5	Environmental Studies II	03
2B	*Skill Enhancement Courses (S	SEC)	2B	*Skill Enhancement Courses (SEC)	ı
6	Any one course from the following list of the courses	02	6	Any one course from the following list of the courses	02
3	Core Courses (CC)		3	Core Courses (CC)	
7	Mathematical and Statistical Techniques – I	03	7	Mathematical and Statistical Techniques – II	03
	Total Credits	20		Total Credits	20

	*List of Skill Enhancement Courses (SEC) for Semester I (Any One)		List of Skill Enhancement Courses (SEC) for Semester II (Any One)
1	Foundation Course – I	1	Foundation Course – II
2	Foundation Course in NSS – I	2	Foundation Course in NSS – II
3	Foundation Course in NCC –	3	Foundation Course in NCC – II
4	4 Foundation Course in Physical Education – I		Foundation Course in Physical Education – II
Note:	Course selected in Semester I v	vill c	ontinue in Semester II

### S.Y. B. Com. - List of subjects

### (To be implemented from Academic Year 2018-2019)

No. of Course	Semester III	Credits	No. of Courses	Semester IV	Credits
1	Elective Course (EC)		1	Elective Courses (EC)	
1A	Discipline Specific Elective Courses	`	1A	Discipline Specific Elective (DSE) C	ourses
1	Accountancy and Financial Management – III	03	1	Accountancy and Financial Management – IV	03
2	Financial Accounting and Auditing V – Introduction to Management Accounting	03	2	Financial Accounting and Auditing VI – Auditing	03
1B	Discipline Related Electiv Courses	e (DRE)	1B	Discipline Related Elective (DRE) C	Courses
3	Commerce – III	03	3	Commerce – IV	03
4	Business Economics – III	03	4	Business Economics – IV	03
2	Ability Enhancement Courses (AEC)		2	Ability Enhancement Courses (AEC)	
2A	*Skill Enhancement Courses Group A	(SEC)	2A	*Skill Enhancement Courses (SEC)	Group A
5	*Any one course from the following list of the courses	03	5	*Any one course from the following list of the courses	03
2B	*Skill Enhancement Courses Group B	(SEC)	2B	*Skill Enhancement Courses (SEC)	Group B
6	Any one course from the following list of the courses	02	6	Any one course from the following list of the courses	02
3	Core Courses (CC)		3	Core Courses (CC)	-
7	Business Law I	03	7	Business Law II	03
	<b>Total Credits</b>	20		Total Credits	20

	of skill Enhancement Courses (SEC) p A for Semester III (Any One)		of skill Enhancement Courses (SEC) Group A for ster IV (Any One)
1	Advertising I	1	Advertising II
2	Field Sales Management I	2	Field Sales Management II
3	Public Relations I	3	Public Relations II
4	Mass Communication I	4	Mass Communication II
5	Travel & Tourism Management Paper I	5	Travel & Tourism Management Paper II
6	Journalism I	6	Journalism II
7	Company Secretarial Practice I	7	Company Secretarial Practice II
8	Rural Development I	8	Rural Development II
9	Co-operation I	9	Co-operation II
10	Mercantile Shipping I	10	Mercantile Shipping II
11	Indian Economic Problem I	11	Indian Economic Problem II
12	Computer Programming I	12	Computer Programming II
13	Logistic and Supply Chain Management I	13	Logistic and Supply Chain Management II
14	Direct & Indirect Taxation I	14	Direct & Indirect Taxation II
Note	: Course selected in Semester III will con	tinue ii	n Semester IV

*List of skill Enhancement Courses (SEC)		*List of skill Enhancement Courses (SEC) Group B for		
Group B for Semester III (Any One)		Seme	ester IV (Any One)	
1	Foundation – III	1 Foundation – IV		
2	Foundation Course in NSS-III	2 Foundation Course in NSS-IV		
3	Foundation Course in NCC-III	3 Foundation Course in NCC-IV		
4	Foundation Course in Physical	4	Foundation Course in Physical Education—IV	
Education— III				
Note: 0	Course selected in Semester III will con	inue ir	n Semester IV	

### T.Y. B.Com.

### (To be implemented from Academic Year 2018-2019)

No. of Course	Semester V	Credits	No. of Courses	Semester VI	Credits
1	Elective Course (EC)		1	Elective Courses (EC)	
1A	Discipline Specific Electi Courses	ve (DSE)	1A	Discipline Specific Elective (DSE) Cou	ırses
1&2	*Any one group of courses from the following list of the group (A/B/C/D/E/F)	04+04	1&2	*Any one group of courses from the following list of the group (A/B/C/D/E/F)	
1B	Discipline Related Electiv Courses	ve (DRE)	1B	Discipline Related Elective (DRE) Cou	rses
3	Commerce V	03	3	Commerce VI	03
4	Business economics V	03	4	Business economics VI	03
2	<b>Ability Enhancement Cours</b>	es (AEC)	2	Ability Enhancement Courses (AEC)	
5&6	* Any two courses from the following list of the courses	03+03	5&6	* Any two courses from the following list of the courses	03+03
	Total Credits	20		Total Credits	20

* List of groups of Discipline Specific Elective			* List of groups of Discipline Specific Elective			
	Courses for semester V ( Any one group)	(DSE	(DSE) Courses for semester VI ( Any one group)			
Group	A: Advanced accountancy					
1	Financial accounting and auditing VII-	1	Financial accounting and auditing IX -			
1	Financial accounting	1	Financial accounting			
2	Financial accounting and auditing VIII-	2	Financial accounting and auditing X-			
2	Cost accounting	2	Cost accounting			
Group	B: Business management					
1	Business management paper I	1	Business management paper III			
2	Business management paper II	2	Business management paper IV			
Group	C: Banking and finance					
1	Banking and finance paper I	1	Banking and finance paper III			
2	Banking and finance paper II	2	Banking and finance paper IV			
Group	D: Commerce					
1	Commerce paper I	1	Commerce paper III			
2	Commerce paper II	2	Commerce paper IV			
Group	E: Quantities techniques					
1	Quantities techniques paper I	1	Quantities techniques paper III			
2	Quantities techniques paper II	2	Quantities techniques paper IV			
Group F: Economics						
1	Economics paper I	1	Economics paper III			
2	Economics paper II	2	Economics paper IV			
	•		•			

 $semester \ 1 \ B.com/B.M.S \ Environmental \ management \ and \ economics$ 

** List	** List Of Ability Enhancement Courses (AEC)		** List Of Ability Enhancement Courses (AEC)		
Semest	er V ( Any Two)	Semester VI ( Any Two)			
1	Trade Unionism And Industrial Relations Paper I	1	Trade Unionism And Industrial Relations Paper II		
2	Computer Systems And Applications Paper I	2	Computer Systems And Applications Paper II		
3	Export Marketing Paper I	3	Export Marketing Paper II		
4	Marketing Research Paper I	4	Marketing Research Paper II		
5	Investment Analysis And Portfolio Management Paper I	5	Investment Analysis And Portfolio Management Paper II		
6	Transport Management Paper I	6	Transport Management Paper II		
7	Entrepreneurship And M.S.S.I. Paper I	7	Entrepreneurship And M.S.S.I. Paper II		
8	International Marketing Paper I	8	International Marketing Paper II		
9	Merchant Banking Paper I	9	Merchant Banking Paper II		
10	Direct And Indirect Taxation Paper I	10	Direct And Indirect Taxation Paper II		
11	Labor Welfare And Practice Paper I	11	Labour Welfare And Practice Paper II		
12	Purchasing And Store Keeping Paper I	12	Purchasing And Store Keeping Paper II		
13	Insurance Paper I	13	Insurance Paper II		
14	Banking Law And Practice Paper I	14	Banking Law And Practice Paper II		
15	Regional P[Lanning Paper I	15	Regional P[Lanning Paper II		
16	Rural Marketing Paper I	16	Rural Marketing Paper II		
17	Elements Of Operational Research Paper I	17	Elements Of Operational Research Paper II		
18	Psychology Of Human Behavior At Work Paper I	18	Psychology Of Human Behavior At Work Paper II		

Note: Course / Subject selected in Semester V will continue in Semester VI

**B.Com.** in Financial Markets

Eligibility: A candidate for being eligible for admission to the Bachelor of Commerce (Financial Markets).

Degree Course shall have passed XII Std. Examination of the Maharashtra State Board of Secondary &

Higher Secondary Education or its equivalent and secured not less than 45% marks in aggregate at (40%

in case of reserved category) one & the same sitting.

Structure: This is a Semester pattern Degree in which examination is conducted & result is declared at

the end of each semester. Each subject has examination of 100 marks comprising 25 marks of Internal

Assessment (Projects, Presentations, and Case studies etc.) & 75 marks of Theory paper.

Passing Standards: Internal Assessment – Min. 10 out of 25

Theory Paper – Min. 30 out of 75

Total Marks – Min 40 out of 100

B. Com (Financial Markets) Programmed Under Choice Based Credit, Grading and Semester

**System Course Structure** 

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# F.Y. B.Com.

(To be implemented from Academic year 2018-2019)

No. o Course	f Semester I	Credits	No. of Courses	Semester II	Credits
1	Elective Course (EC)		1	Elective Courses (EC)	
1	Financial Accounting – I	03	1	Financial Accounting – II	03
2	Introduction to Financial System	03	2	Principles of Management	03
3	Business Mathematics	03	3	Business Statistics	03
2	Ability Enhancement Courses (AE	:C)	2	Ability Enhancement Courses (AEG	C)
2A	Ability Enhancement Compulsor (AECC)	y Courses	2A	Ability Enhancement Compulso (AECC)	ory Courses
4	Business Communication – I	03	4	Business Communication – II	03
2B	*Skill Enhancement Courses (SEC	•	2B	**Skill Enhancement Courses (SEC	
5	Any one course from the following list of the courses	02	5	Any one course from the following list of the courses	02
3	Core Courses (CC)		3	Core Courses (CC)	
6	Business Environment	03	6	Environmental Science	03
7	Business Economics – I	03	7	Computer Skills – I	03
	Total Credits	20		Total Credits	20

	*List of Skill Enhancement Courses (SEC) for		*List of Skill Enhancement Courses (SEC) for Semester II		
Semester I (Any One)		(Any One)			
1	Foundation Course – I	1	Foundation Course – II		
2	Foundation Course in NSS – I	2	Foundation Course in NSS – II		
3	Foundation Course in NCC – I	3	Foundation Course in NCC – II		
4	Foundation Course in Physical Education – I	4	Foundation Course in Physical Education – II		
No	Note: Course selected in Semester I will continue in Semester II				

# S.Y.B.Com (Financial Markets)

(To be implemented from Academic year 2018-2019)

No. of Course	Semester III	Credits	No. of Courses	Semester IV	Credits
1.	Equity Markets-I	03	1.	Equity Markets-II	03
2.	Commodity Markets	03	2.	Commodity Derivatives	03
3.	Portfolio Management	03	3.	Merchant Banking	03
4.	Foundation Course-III (Money Markets)	02	4.	Foundation Course-IV (Foreign Exchange Markets)	02
5.	Business Law-I	03	5.	Corporate Finance	03
6.	Management accounting	03	6.	Business Economics-II	03
7.	Computer Skills	03	7.	Business Law-II	03
	Total Credits	20		Total Credits	20

# T.Y.B.Com (Financial Markets)

(To be implemented from Academic year 2018-2019)

No. of Course	Semester V	Credits	No. of Courses	Semester VI	Credits
1	Elective Course (EC)		1	Elective Courses (EC)	
1, 2, 3 & 4	*Any four courses from the following list of the courses	12	1, 2, 3 & 4	*Any four courses from the following list of the courses	12
2	Core Courses (CC)		2	Core Courses (CC)	
5	Financial Derivatives	04	5	Risk Management	04
6	Business Ethics and Corporate Governance	04	6	Project Work	04
	Total Credits	20		Total Credits	20

**Note:** Project work is considered as a special course involving application of knowledge in solving / analyzing/ exploring a real life situation / difficult problem. Project work would be of 04 credits each. A projects work may be undertaken in any area of Elective Courses / Study area

*List of Elective Courses for Semester V(Any			*List of Elective Courses for Semester VI(Any Four)		
Four)					
1	Marketing in Financial Services	1	Venture capital and Private Equity		
2	Technical Analysis	2	Mutual Fund Management		
3	Corporate Accounting	3	Organizational Behavior		
4	Equity Research	4	Strategic Corporate Finance		
5	Direct Tax-Income Tax	5	Indirect Tax-GST		
6	Business Valuation	6	Corporate Restructuring		
Note	: Course / Subject selected in Semester V w	ill cont	inue in Semester VI		

## F.Y.B.Com (Accounting & Finance)

(To be implemented from Academic year 2016-2017)

# B.Com (Accounting & Finance) Programme Under Choice Based Credit, Grading and Semester System Course Structure

**Objectives & Scope:** - The objective of this Degree is to impart in depth with the rotical as well as practical knowledge to Commerce students in the area of Accounting, Auditing & Financial Management. This enables them to compete effectively in the job market.

The Degree is ideally suitable for those students who wish to pursue higher education in the form of C.A. (Chartered Accountant), C.F.A. (Chartered Financial Analysis) nd C.W.A. (Cost & Works Accountant).

**Eligibility, Structure, Passing Standards:** - 12<sup>th</sup> Passed (Std. XII) (Any faculty with minimum 45% for open category and 40% for reserved category) at FIRST attempt.

No. of Courses	Semester I	Credits	No. of Course s	Semester II	Credits
1	Elective Course (EC)		1	Elective Courses (EC)	
1	Financial Accounting (Elements of Financial Accounting) – I		1	Financial Accounting (Special Accounting Area) – II	03
2	Cost Accounting (Introduction and Element of Cost) – I	03	2	Auditing (Introduction and Planning) - I	03
3	Financial Management (Introduction to Financial Management) – I	03	3	Innovative Financial Services	03
2	Ability Enhancement Course	es (AEC)	2	Ability Enhancement Courses (AEC	<b>C)</b>
2A	Ability Enhancement Comp Courses (AECC)	ulsory	2A	Ability Enhancement Com Courses (AECC)	pulsory
4	Business Communication – I	03	4	Business Communication – II	03
2B	*Skill Enhancement Courses	(SEC)	2B	*Skill Enhancement Courses (SEC)	
5	Any one course from the following list of the courses	02	5	Any one course from the following list of the courses	02
3	Core Courses (CC)		3	Core Courses (CC)	
6	Commerce (Business Environment) – I	03	6	Business Law (Business regulatory Framework) – I	03
7	Business Economics – I	03	7	Business Mathematics	03
	Total Credits	20		Total Credits	20

*List of Skill Enhancement Courses (SEC) for Semester I (Any One)		*List of Skill Enhancement Courses (SEC) for Semester (Any One)				
1	Foundation Course – I	1	Foundation Course – II			
2	Foundation Course in NSS – I	2	Foundation Course in NSS – II			
3	Foundation Course in NCC – I	3	Foundation Course in NCC – II			
4 Foundation Course in Physical Education – I			Foundation Course in Physical Education – II			
Note	Note : Course selected in Semester I will continue in Semester II					

# S.Y.B.Com (Accounting & Finance)

No. of	Semester III	Credits	No. of	Semester IV	Credits
Course			Courses		
1	Elective Course (EC)		1	Elective Courses (EC)	
1, 2 & 3	*Any three courses from the following list of the courses	09	1, 2 & 3	*Any three courses from the following list of the courses	09
2	Ability Enhancement Course	s (AEC)	2	Ability Enhancement Courses (AEC)	
2A	Ability Enhancement Courses	s (AECC)	2A	Ability Enhancement Comp Course (AECC)	ulsory
4	Information Technology in Accountancy – I	03	4	Information Technology in Accountancy – II	03
2В	* Skill Enhancement Course (SEC)		2B	** Skill Enhancement Course (SEC)	
5	Any one Course from the following list of the course	02	5	Any one Course from the following list of the course	02
3	Core Course (CC)		3	Core Course (CC)	
6	Business Law (Business Regulatory Framework) – II	03	6	Business Law (Company Law) – III	03
7	Business Economics – II	03	7	Research Methodology in Accounting and Finance	03
	Total Credits	20		Total Credits	20

	* List of Skill Enhancement Course ( SEC) For Semester III ( Any one)		st of Skill Enhancement Course ( SEC) For ester IV ( Any one)
1	Foundation Course in Commerce (	1	Foundation Course in Management (
	Financial market operation )-III		Introduction to Management )-IV
2	Foundation Course – Contemporary Issues- III	2	Foundation Course – Contemporary Issues- IV
3	Foundation Course in NSS- III	3	Foundation Course in NSS- IV
4	Foundation Course in NCC- III	4	Foundation Course in NCC- IV
5	Foundation Course in Physical Education - III	5	Foundation Course in Physical Education – IV

	List of Electives Courses ( EC) for Semester III ( Any three )		ectives Courses (EC) for Semester IV (Any
01	Financial accounting ( Special Accounting Areas)- III	01	Financial accounting (Special Accounting Areas)- IV
02	Cost accounting ( Methods of Costing) - II	02	Management Accounting (Introduction to Management Accounting)
03	Auditing ( Techniques of auditing and Audit procedure)-II	03	Auditing – III
04	Taxation –II ( Direct Tax Paper –I)	04	Taxation – III (Direct Taxes – II)
05	Principles & Practices of banking	05	Wealth Management

Note: Course selected Semester III will Continue in Semester IV

## T.Y.B.Com (Accounting & Finance)

### (To be implemented from Academic year 2018-2019)

No. of	Semester V	Credits	No. of Courses	Semester VI	Credits
1	Elective Course (EC)		1	Elective Courses (EC)	
1, 2,3 & 4	*Any four courses from the following list of the courses	12	1, 2,3 & 4	*Any four courses from the following list of the courses	12
2	Core Courses (CC)		2	Core Courses (CC)	
5	Financial Accounting - V	04	5	Financial Accounting - VII	04
6	Financial Accounting – VI		6	Project Work	
	Total Credits	04 20		Total Credits	04

Note: Project work is considered as a special Course involving application of knowledge in solving / analyzing/ exploring a real life situation / difficult problem. Project work would be of 04 credit each. A project work may be undertaken in any area of Elective Courses/ Study Area

List of	List of Electives Courses for Semester V ( Any Four )		List of El	ectives Courses for Semester VI ( Any Four )			
01	Cost Accounting – III		01	Cost Accounting – IV			
02	Financial Management – II		02	Financial Management – III			
03	Taxation – IV (Indirect Taxes – II)		03	Taxation – V (Indirect Taxes – III)			
04	International Finance		04	Security Analysis and Portfolio Management			
05	Financial Analysis and Business Valuation		05	Management Control System			
06	Management – II (Management Applications)		06	Economics Paper – III (Indian Economy)			
Note:	Note : Course selected Semester V will Continue in Semester VI						

### F.Y. B.Com (Financial Management)

(To be implemented from Academic year 2016-2017)

**Eligibility, Structure, Passing Standards: -12**<sup>th</sup> Passed (Std. XII) (Any faculty with minimum 45% for open category and 40% for reserved category) at ONE AND SAME SITTING.

# B. Com (Financial Management) Programme Under Choice Based Credit, Grading and Semester System Course Structure

No. of Course	Semester I	Credits	No. of Courses	Semester II	Credits	
1	Elective Course (EC)		1	Elective Courses (EC)		
1	Financial Accounting – I	03	1	Financial Accounting – II	03	
2	Business Mathematics	03	2	Business Statistics	03	
3	Indian Financial system	03	3	Principles of Finance	03	
2	Ability Enhancement Courses (AEC)		2	Ability Enhancement Courses (AEC)		
2A	Ability Enhancement Co Courses (AECC)	mpulsory	2A	Ability Enhancement Cor Courses (AECC)	mpulsory	
4	Business Communication – I	03	4	Business Communication – II	03	
2B	*Skill Enhancement Courses (SE		2B	**Skill Enhancement Courses (SE	C)	
5	Any one course from the following list of the courses	02	5	Any one course from the following list of the courses	02	
3	Core Courses (CC)		3	Core Courses (CC)		
6	Business Environment	03	6	Environmental Science	03	
7	Business Economics – I	03	7	Computer Skills – I	03	
	Total Credits	20		Total Credits	20	

*List of Skill Enhancement Courses (SEC) for Semester I (Any One)		*List of Skill Enhancement Courses (SEC) for Semeste (Any One)			
1	Foundation Course – I	1	Foundation Course – II		
2	Foundation Course in NSS – I	2	Foundation Course in NSS – II		
3	Foundation Course in NCC – I	3	Foundation Course in NCC – II		
4	Foundation Course in Physical Education – I	4	Foundation Course in Physical Education – II		
Note : Course selected in Semester I will continue in Semester II					

(To be implemented from Academic year 2017-2018)

# S.Y. B.Com (Financial Management)

No. of Course	Semester III	Credits	No. of Courses	Semester IV	Credits
1	Elective Course (EC)		1	Elective Courses (EC)	
1, 2 & 3	*Any three courses from the following list of the courses	09	1, 2 & 3	*Any three courses from the following list of the courses	09
2	Ability Enhancement Course	s (AEC)	2	Ability Enhancement Courses (AEC)	
4	Entrepreneurial Development	02	4	IT in Management	02
3	Core Course (CC)		3	Core Course (CC)	
5	Management Accounting	03	6	Corporate Finance	03
6	Business Law	03	7	Corporate Law	03
7	Business Regulatory Framework	03		Office Management	03
	Total Credits	20		Total Credits	20

List of Electives Courses ( EC) for Semester III ( Any three )		List of Electives Courses ( EC) for Semester IV ( three )		
01	Corporate Accounts -I	01	Corporate Accounts –II	
02	Direct Tax-I	02	Direct Tax-II	
03	Indirect Tax -I	03	Indirect Tax –II	
04	Investment Banking	04	Investment Banking	
05	Cost Accounting -I	05	Cost Accounting –II	
Note : Course selected Semester III will Continue in Semester IV				

### **T.Y. B.Com (Financial Management)**

(To be implemented from Academic year 2018-2019)

No. of Course	Semester V	Credits	No. of Courses	Semester VI	Credits
1	Elective Course (EC)		1	Elective Courses (EC)	
1, 2, 3 & 4	*Any four courses from the following list of the courses	12	1, 2, 3 & 4	*Any four courses from the following list of the courses	12
2	Core Courses (CC)		2	Core Courses (CC)	•
5	Financial Management -I	04	5	Financial Management -II	04
6	Research Methodology in Financial Management	04	6	Project Work	04
	Total Credits	20		Total Credits	20

**Note**: Project work is considered as a special course involving application of knowledge in solving / analyzing/ exploring a real life situation / difficult problem. Project work would be of 04 credits each. A projects work may be undertaken in any area of Elective Courses / Study area

*List Four)	of Elective Courses for Semester V(Any	*List of Elective Courses for Semester VI(Any Fo			
1	Corporate Accounting - III	1	Corporate Accounting – IV		
2	Auditing -I		Auditing –II		
3	Management Information System		Financial Reporting		
4	Business Ethics		Organizational Behaviour		
5	Personal Financial Planning		Econometrics in Finance		
6	Financial Analysis and Business Valuation		Security Analysis and Portfolio Management		
Note	Note : Course / Subject selected in Semester V will continue in Semester VI				

### **F.Y. B.Com (Investment Management)**

Eligibility, Structure, Passing Standards: -12<sup>th</sup> Passed (Std. XII) (Any faculty with minimum 45% for open category and 40% for reserved category) at ONE and the SAME SITTING B.Com (Investment Management) Programme **Under Choice Based Credit, Grading and Semester System Course Structure** 

(To be implemented from Academic Year 2018-19)

Eligibility, Structure, Passing Standards: -12<sup>th</sup> Passed (Std. XII) (Any faculty with minimum 45% for open category and 40% for reserved category) at ONE and the SAME SITTING.

No. Courses	of	Semester I	Credits	No. of	Semester II	Credits
1		Elective Course (EC)		1	Elective Courses (EC)	
1		Basic of Investment and Wealth creation	03	1	Introduction to Wealth Management	03
2		Introduction to Accounting-I	03	2	Introduction to Accounting-II	03
3		Introduction to financial System	03	3	Introduction to Financial Market	03
2		Ability Enhancement Cours	es (AEC)	2	Ability Enhancement Courses (AE	C)
2A		Ability Enhance Compulsory Courses (AECC		2A	Ability Enhancement Com Courses (AECC)	pulsory
4		Business Communication – I	03	4	Business Communication – II	03
2B		*Skill Enhancement Course	s (SEC)	2B	*Skill Enhancement Courses (SEC)	
5		Any one course from the following list of the courses	02	5	Any one course from the following list of the courses	02
3		Core Courses (CC)		3	Core Courses (CC)	
6		Business Economics – I	03	6	Introduction of Financial Intermediaries	03
7		Quantitative techniques	03	7	Investment Banking	03
		<b>Total Credits</b>	20		Total Credits	20

*List of Skill Enhancement Courses(SEC)		*List Of Skill Enhancement Courses(SEC)		
for Semester I (Any One)		For	Semester II (Any One)	
1	Foundation Course – I	1	Foundation Course – II	
2	Foundation Course in NSS – I	2	Foundation Course in NSS – II	
3	Foundation Course in NCC – I	3	Foundation Course in NCC – II	
4	Foundation Course in Physical Education-I	4	Foundation Course in Physical Education – II	

### **S.Y. B.Com (Investment Management)**

(To be implemented from Academic Year- 2017-2018)

No. of Courses	Semester III	Credits	No. of Courses	Semester IV	Credits
1	Elective Courses (EC)		1	Elective Courses (EC)	
1,2 & 3	*Any three courses from the	09	1,2 & 3	**Any three courses from the	09
	following list of the courses			following list of the courses	
2	Ability Enhancement Courses (AEC)		2	Ability Enhancement Courses (AEC)	
2.4	Ability Enhancement Compulsory		2.4	Ability Enhancement Compulsory	
2A	Course (AECC)		2A	Course (AECC)	
4	Information Technology in	03	4	Information Technology in	03
	Investment Management - I			Investment Management –II	
2B	*Skill Enhancement Courses (SEC)		2B	**Skill Enhancement Courses (SEC)	
5	Any one course from the	02	5	Any one course from the	02
	following list of the courses			following list of the courses	
3	Core Courses (CC)		3	Core Courses (CC)	
6	Security Analysis and Portfolio	03	6	Security Analysis and Portfolio	03
	Management – I			Management – II	
7	Mutual Fund Management	03	7	Business Economics-II	03
Total Credi	ts	20	Total Credi	its	20

	*List of Skill Enhancement Courses (SEC)		**List of Skill Enhancement Courses (SEC)		
fo	for Semester III (Any One)		r Semester IV (Any One)		
1	Foundation Course –III	1	Foundation Course – IV		
	(An Overview of Investment Management)		(An Overview of Banking & Insurance)		
2	Foundation Course-Contemporary Issues-III	2	Foundation Course-Contemporary Issues-IV		
3	Foundation Course in NSS - III	3	Foundation Course in NSS – IV		
4	Foundation Course in NCC - III	4	Foundation Course in NCC – IV		
5	Foundation Course in Physical Education-III	5	Foundation Course in Physical Education-IV		

	*List of Elective Courses (EC) for Semester III (Any Three)		**List of Elective Courses (EC) for Semester IV (Any Three)			
1	Financial Management – I	1	Financial Management –II			
2	Cost and Management Accounting	2	Direct Taxation			
3	Fundamentals of Capital Market	3	Fundamentals of Equity Market			
4	Financial Services	4	Financial Derivatives			
5	Marketing of Investment Products		Introduction to Equity Research			
No	Note: Course selected in Semester III will continue in Semester IV					

## **T.Y. B.Com (Investment Management)**

(To be implemented from Academic Year 2018-19)

No. of Course	Semester V	Credits	No. of Courses	Semester VI	Credits	
1	Elective Course (EC)		1	Elective Courses (EC)		
1, 2,3 & 4	*Any four courses from the following list of the courses	12	1, 2,3 & 4	*Any four courses from the following list of the courses	12	
2	Core Courses (CC)		2	Core Courses (CC)		
5	International finance-I	04	5	International finance-II	04	
3	Ability Enhancement Courses	s (AEC)	3	Ability Enhancement Courses (AEC)		
6	Research methodology		6	Project Work		
		04			04	
	Total Credits	20		Total Credits 20		

Note: Project work is considered as a special Course involving application of knowledge in solving / analyzing/exploring a real life situation / difficult problem. Project work would be of 04 credit each. A project work may be undertaken in any area of Elective Courses/ Study Area

List of )	List of Electives Courses for Semester V ( Any Four )		lectives Courses for Semester VI ( Any Four )
01	Operations in equity market	01	Commodity markets and derivatives
02	Corporate accounting	02	Auditing
03	Business ethics	03	Corporate Governance
04	Risk management	04	Project management
05	Behavioral finance	05	Venture capital
06	Merchant banking-I	06	Merchant banking –II
Nata .	Course selected in Competer V will continue	a in Cama	

Note: Course selected in Semester V will continue in Semester VI

### **Bachelor of Commerce in Banking & Insurance (BCBI)**

**Eligibility:** - Minimum 45% for GENERAL Category & Minimum 40% for RESERVED Category in H.S.C. (Commerce) in aggregate AT ONE & THE SAME SITTING at first attempt.

**Structure:** - This is a Semester pattern Degree in which examination is conducted & result is declared at the end of each semester. Each subject has examination of 100 marks comprising 25 marks of Internal Assessment (Projects, Presentations, and Case studies etc.) & 75 marks of Theory paper.

**Passing Standards: -** Internal Assessment – Min 10 out of 25

Theory Paper – Min 30 out of 75 Total Marks – Min. 40 out of 100.

B.Com (Banking & Insurance) Programme at Under Choice Based Credit, Grading and Semester System Course Structure

(To be Implemented from Academic year 2016-17)

# F.Y.B. Com. (Banking & Insurance)

No. of Course	Semester I	Credits	No. of Courses	Semester II	Credits	
1	Elective Course (EC)		1	Elective Courses (EC)		
1	Environment and Management of Financial Services	03	1	Principles and Practices of Banking & Insurance	03	
2	Principles of Management	03	2	Business Law	03	
3	Financial Accounting – I	03	3	Financial Accounting – II 03		
2	Ability Enhancement Courses (A	EC)	2	Ability Enhancement Courses (AEC)		
2A	Ability Enhancement Co Courses (AECC)	mpulsory	2A	Ability Enhancement Compulsory Courses (AECC)	ent	
4	Business Communication – I	03	4	Business Communication – II	03	
2B	*Skill Enhancement Courses (SEG	C)	2B	*Skill Enhancement Courses (S	SEC)	
5	Any one course from the following list of the courses	02	5	Any one course from the <b>02</b> following list of the courses		
3	Core Courses (CC)		3	Core Courses (CC)		
6	Business Economics – I	03	6	Organizational Behaviour 03		
7	Quantitative Methods – I	03	7	Quantitative Methods – II 03		
	Total Credits	20		Total Credits	20	

	*List of Skill Enhancement Courses (SEC) for Semester I (Any One)	*List of Skill Enhancement Courses (SEC) Semester II (Any One)					
1	Foundation Course – I	1	Foundation Course – II				
2	Foundation Course in NSS – I	2	Foundation Course in NSS – II				
3	Foundation Course in NCC – I	3	Foundation Course in NCC – II				
4	Foundation Course in Physical Education – I	4	Foundation Course in Physical Education – II				
N	Note : Course selected in Semester I will continue in Semester II						

# S.Y.B. Com. (Banking & Insurance)

(To be implemented from Academic Year- 2017-2018)

No. of	Semester III	Credits	No. of	Semester IV	Credits
Courses	Courses		Courses		
1	Elective Courses (EC)		1	Elective Courses (EC)	
1,2 & 3	*Any three courses from the	09	1,2 & 3	*Any three courses from the	09
	following list of the courses			following list of the courses	
2	Ability Enhancement Courses		2	Ability Enhancement Courses	
	(AEC)			(AEC)	
2A	Ability Enhancement		2A	Ability Enhancement	
	Compulsory Course (AECC)			Compulsory Course (AECC)	
4	Information Technology in	03	4	Information Technology in	03
	Banking & Insurance- I			Banking & Insurance- II	
2B	*Skill Enhancement Courses		2B	**Skill Enhancement Courses	
	(SEC)			(SEC)	
5	Any one course from the	02	5	Any one course from the	02
	following list of the courses	following list of the courses			
3	Core Courses (CC)		3	Core Courses (CC)	
6	Financial Markets	03	6	Corporate & Securities Law	03
7	Direct Taxation	03	7	Business Economics-II	03
	Total Credits	20		Total Credits	20

	ist of Skill Enhancement Courses (SEC) for mester III (Any One)	**List of Skill Enhancement Courses (SEC) for Semester IV (Any One)			
1	Foundation Course – III (An Overview of Banking Sector)		Foundation Course - IV (An Overview of Insurance Sector)		
2	Foundation Course- Contemporary Issues- III	2	Foundation Course- Contemporary Issues-IV		
3	Foundation Course in NSS - III	3	Foundation Course in NSS – IV		
4	Foundation Course in NCC - III	4	Foundation Course in NCC – IV		
5	Foundation Course in Physical Education – III	5	Foundation Course in Physical Education – IV		

*List of Elective Courses (EC) for Semester III			**List of Elective Courses (EC) for Semester IV (Any			
(A	ny Three)	Three	2)			
1	Financial Management - I	1	Financial Management –II			
2	Management Accounting	2	Cost Accounting			
3	Organizational Behaviour	3	Entrepreneurship Management			
4	Risk Management	4	Wealth Management			
5	Mutual Fund Management	5	Customer Relationship Management			
No	te: Course selected in Semester III will continu	ie in Se	mester IV			

(To be implemented from Academic Year- 2018-2019)

No. of Courses	Semester V		No. of Courses	Semester VI	Credits
1	Elective Courses (EC)		1	Elective Courses (EC)	
1,2,3 & 4	*Any four courses from the following list of the courses	12	1,2,3 & 4	*Any four courses from the following list of the courses	12
2	Core Courses (CC)		2	Core Courses (CC)	
5	International Banking and Finance	04	5	Central Banking	04
3	Ability Enhancement Courses (AEC)		3	Ability Enhancement Courses (AEC)	
6	Research Methodology	04	6	Project work in Banking and Insurance	04
	Total Credits	20		Total Credits	20

Note: Project work is considered as a special course involving application of knowledge in solving / analyzing / exploring a real life situation / difficult problem. Project work would be of 04 credit each. A project work may be undertaken in any area of Elective Courses / Study Area.

_	may be undertaken in any area of Elective coarses / Stady / area.							
*Li	ist of Elective Courses (EC) for Semester V	**List of Elective Courses (EC) for Semester VI (A						
(A	ny Four)	Four)						
1	Financial Reporting and Analysis (Corporate	1	Security Analysis and Portfolio Management					
	Banking & Insurance)							
2	Auditing – I	2	Auditing – II					
3	Strategic Management	3	Human Resource Management					
4	Financial Services Management	4	Turnaround Management					
5	Business Ethics and Corporate Governance	5	International Business					
6	Actuarial Analysis in Banking & Insurance	6	Marketing in Banking and Insurance					
No	ote: Course selected in Semester V will continu	e in Ser	mester VI					

## **Bachelor of Commerce in Environmental Management and Economics**

Eligibility: - Minimum 45 % for GENERAL Category & Minimum 40% for RESERVED Category in H.S.C (Commerce) in aggregate AT ONE & THE SAME SITTING at First Attempt.

Structure: - This is a Semester pattern Degree in which examination is conducted & result is declared at the end of each Semester. Each Subject has examination of 100 marks comprising 25 marks of Internal Assessment Projects, Presentations and Case Studies etc.) & 75 marks of Theory paper.

Passing Standards : Internal Assessment – Min 10 out of 25 Theory Paper – Min 30 Out of 75 Total Marks

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### B.Com (Environmental Management and Economics) Programme Under Choice Based Credit, Grading and Semester System Course Structure

		Teaching I	Hours		Assess	ment Pat	tern	
Sr. No.	Subject	No. of Sessions of 90 minutes	No. of Sessions of 90 minutes per week	Contin uous Assess ment	Semeste r End Examina tion	Total Marks	Duration of Theory Paper	No of Credits
1	Introduction to Environment Management	30	2	40 IA	60 IA	100	3	2
2	Principles of Management	30	2	40 IA	60 IA	100	3	2
3	Organisational Behaviour	30	2	40 IA	60 IA	100	3	2
4	Managerial Economics	30	2	40 IA	60 IA	100	3	2
5	Financial Accounting	30	2	40 IA	60 IA	100	3	2
6	Business Communication	30	2	40 IA	60 IA	100	3	2
			Total I	No of Credit	s			12

Semester II - B.Com/B.M.S Environmental Management & Economics

		Teaching Hours		Assessment Pat	ttern			
Sr. No.	Subject	Sessions of		Continuous	Semester End Examination	Total Marks	Thoory	No of Credits
1	Ecology & Environment	30	2	40 IA	60 IA	100	3	2
2	Human Resource Management	30	2	40 IA	60 IA	100	3	2
3	Introduction to Cost Accounting		2	40 IA	60 IA	100	3	2
4	Economic Environment of Business	30	2	40 IA	60 IA	100	3	2
5	Production Management & Materials Management	30	2	40 IA	60 IA	100	3	2
6	Business Statistics	30	2	40 IA	60 IA	100	3	2
			Total No of Credits					12

		Teaching	Hours	urs Assessme				
Sr. No.	Subject	No. of Sessions of 90 minutes	No. of Sessions of 90 minutes per week	Contin uous Assess ment	Semester End Examination	Total Marks	Duratio n of Theory Paper	No of Credits
1	Environmental Economics – I	30	2	40 IA	60 IA	100	3	2
2	Marketing Management	30	2	40 IA	60 IA	100	3	2
3	Research Methods in Business	30	2	40 IA	60 IA	100	3	2
4	Global Warming & Climate Change	30	2	40 IA	60 IA	100	3	2
5	Natural Resources & Management	30	2	40 IA	60 IA	100	3	2
6	Financial Management	30	2	40 IA	60 IA	100	3	2
			Total No of Credits					12

Semester IIV - B.Com/B.M.S Environmental Management & Economics

		Teaching Hours		Assessment Pattern				
Sr. No.	Subject	No. of Sessions of 90 minutes	No. of Sessions of 90 minutes per week	Contin uous Assess ment	Semester End Examina tion	Total Marks	Duration of Theory Paper	No of Credits
1	Environmental Safety, Health & Management	30	2	40 IA	60 IA	100	3	2
2	Environmental Pollution & Management	30	2	40 IA	60 IA	100	3	2
3	Environmental Economics – II	30	2	40 IA	60 IA	100	3	2
4	Customer Relationship Management	30	2	40 IA	60 IA	100	3	2
5	Occupational Health & Safety	30	2	40 IA	60 IA	100	3	2
6	Management Information Systems	30	2	40 IA	60 IA	100	3	2
7	Project Submission – I	100 Marks					4	
			Total No of Credits					16

## Semester V – B.Com/B.M.S Environmental Management & Economics

		Teaching Hours		Assessment Pattern					
Sr. No.	Subject	No. of Sessions of 90 minutes	No. of Sessions of 90 minutes per week	Contin uous Assess ment	Semester End Examina tion	Total Marks	Duration of Theory Paper	No of Credits	
1	Environmental Impact Assessment	30	2	40 IA	60 IA	100	3	2	
2	Strategic Management	30	2	40 IA	60 IA	100	3	2	
3	Entrepreneursh ip Management	30	2	40 IA	60 IA	100	3	2	
4	Environmental Legislation	30	2	40 IA	60 IA	100	3	2	
5	Project Management	30	2	40 IA	60 IA	100	3	2	
6	Business Ethics	30	2	40 IA	60 IA	100	3	2	
			Total I	No of Credi	its			12	

# Semester VII – B.Com/B.M.S Environmental Management & Economics

		Teaching Ho	urs	Assessme	Assessment Pattern			
Sr. No.	Kubiect	No. of Sessions of 90 minutes	Sessions of	Contin Juous Assess ment	Semester End Examina tion	Total Marks	Duration of Theory Paper	No of Credits
1	Corporate Social Responsibility	30	2	40 IA	60 IA	100	3	2
2	Management	30	2	40 IA	60 IA	100	3	2
3	Environment & Eco – Tourism	30	2	40 IA	60 IA	100	3	2
4	Corporate Governance	30	2	40 IA	60 IA	100	3	2
5	Environmental Problems, Hazards & Mitigation	30	2	40 IA	60 IA	100	3	2
6	Corporate Governance	30	2	40 IA	60 IA	100	3	2
7	Project Submission – II	100 Marks						4
			Total No of C	Credits				16

### **Bachelor of Management Studies (BMS)**

**Eligibility:** - Passed H.S.C. Examination in one attempt (Arts / Commerce / Science) of Maharashtra State Board of Higher Secondary Education or any examination recognized as equivalent thereto / or Diploma in any Engineering branch.

Minimum Percentage required: Open Category 45%, Reserved Category 40%.

**Structure:** - This is a Semester pattern Degree in which Examination is conducted & result is declared at the end of each Semester. Each subject has Examination of 100 marks comprising 25 marks of Internal Assessment & 75 marks of Theory Paper.

Passing Standards: - Internal Assessment: Min 10 out of 25

Theory Paper: Min. 30 out of 75

### F.Y.BMS

	Semester I	Credits		Semester II	Credits
1.1	Introduction to Financial Accounts	03	1.1	Principles of Marketing	03
1.2	Business Law	03	1.2	Industrial Law	03
1.3	Business Statistics	03	1.3	Business Mathematics	03
1.4	Business Communication – I	03	1.4	Business Communication – II	03
1.5	Foundation Course – I	02	1.5	Foundation Course – II	02
1.6	Foundation of Human Skills	03	1.6	Business Environment	03
1.7	Business Economics – I	03	1.7	Principles of Management	03
	Total Credits	20		Total Credits	20

### Specialization to be offered to Learners from Semester III onwards:

- 1. Finance or
- 2. Marketing or
- 3. Human Resources Management

Semester	Compulsory Papers	Specialization Papers
III	5	2
IV	5	2
V	2	4
VI	1 (+Project Work)	4

Semester III		CREDITS
	Compulsory Courses	
	1. Environmental Management ( FC-III)	02
	2. Business Planning & Entrepreneurial Management	03
	3. Accounting for Managerial Decisions	03
	4. Strategic Management	03
	5. Information Technology in Business Management – I	03
	Any one Elective Group to be selected by the Learner	
	Finance Group Courses	
	1. Introduction To Cost Accounting	03
	2. Corporate Finance	03
	Marketing Group Courses	
	1. Consumer Behaviour	03
	2. Advertising	03
	Human Resources Group Courses	
	1. Recruitment and Selection	03
	2. Motivation and Leadership	03
	Total Credits	20
Semester IV		CREDITS
	Compulsory Courses	
	1. Business Economics – II	03
	2. Business Research Methods	03
	3. Ethics & Governance ( FC-IV)	02
	4. Production & Total Quality Management	03
	5. Information Technology in Business Management – II	03
	Finance Group Courses	
	1. Financial Institutions & Markets	03
	2. Auditing	03
	Marketing Group Courses	
	1. Integrated Marketing Communications	03
	2. Rural Marketing	03
	Human Resources Group Courses	
	1. Training and Development in HRM	03
	2. Change Management	03
	Total Credits	20

# T.Y.BMS

Semester V		CREDITS
	Compulsory Courses	
	1. Logistics & Supply Chain Management	04
	2. Corporate Communication & Public Relations	04
	Finance Group Courses	
	1. Investment Analysis & Portfolio Management	03
	2. Commodity & Derivatives Market	03
	3. Wealth Management	03
	4. Risk Management	03
	Marketing Group Courses	
	1. Services Marketing	03
	2. E-Commerce & Digital Marketing	03
	3. Sales & Distribution Management	03
	4. Strategic Marketing Management	03
	Human Resources Group Courses	
	1. Finance for HR Professionals & Compensation Management	03
	2. Strategic Human Resource Management & HR Policies	03
	3. Performance Management & Career Planning	03
	4. Stress Management	03
	Total Credits	20
Semester VI	Compulsory Courses	
	1. Operations Research	04
	2. Project Work	04
_	Finance Group Courses	

Strategic Financial Management	03
2. International Finance	03
3. Innovative Financial Services	03
4. Project Management	03
Marketing Group Courses	
1. Brand Management	03
2. Retail Management	03
3. International Marketing	03
4. Media Planning & Management	03
Human Resources Group Courses	
1. HRM in Global Perspective	03
2. Organizational Development	03
3. HRM in Service Sector Management	03
4. Indian Ethos in Management	03
Total Credits	20

**Objectives and Scope:** BMS Degree offers the students not only Theoretical knowledge of Management & its Functional areas like Marketing, Operations, Financial Management and Human Resource Management, but also imparts Practical knowledge through various sources, like Projects (Individual & Group), Presentations, Analysis of Real Life Case Studies & Industrial Visits in every Academic Year to reputed companies.

The main advantage of this Degree over other Professional as well as Non- Professional Degrees is that it covers many diversified subjects and does not restrict the knowledge of students to one or two particular sectors. This helps the students in availing of employment opportunities in almost any industry, whether it is Manufacturing Industry or Service Industry.

### **SCIENCE FACULTY**

**Eligibility: -** Passed H.S.C. Examination (STD XII) in Science conducted by Maharashtra State Board of Higher Secondary Education or its equivalent in Science Stream.

Passing Standards: - Theory – 40 marks out of 100
Practical – 40 marks out of 100

#### F. Y. B.Sc.

A student can opt for anyone of the following groups –

- 1. Chemistry, Physics, Mathematics.
- 2. Chemistry, Botany, Zoology.
- 3. Chemistry, Biochemistry, Botany.
- 4. Physics, Mathematics, Statistics.

In addition, one paper of Foundation Course – I is common & compulsory for all groups.

#### S.Y. B.Sc.

A student can opt for anyone of the following groups depending upon the group selected in F. Y. B. Sc.

- 1. Chemistry & Physics
- 2. Chemistry & Botany
- 3. Chemistry & Zoology
- 4. Mathematics & Physics
- 5. Chemistry & Biochemistry
- 6. Botany & Zoology

In addition, one paper of Foundation Course –II is common & compulsory for all groups.

#### T. Y. B. Sc.\*

A student can opt for any one of the following subjects as the major subject depending upon the group selected in S. Y. B. Sc. by the student –

- 1. Chemistry
- 2. Physics
- 3. Mathematics

- 4. Botany
- 5. Zoology
- 6. Biochemistry

Students will not be allowed to change the group or subject/s once selected without the permission of the Principal.

### **B.Sc.** (Biotechnology)

**O.5108 A** Candidate for being eligible for admission to the Three year Integrated course leading to the degree of Bachelor of Science (B.Sc.) must have passed Higher Secondary School Certificate Examination (Std.XII) in Science conducted by the Maharashtra State Board of Secondary and Higher Secondary Education or its equivalent in Science stream.

Admission will be on merit, based on order of preference as follows:

Aggregate Marks at H.S.C. or equivalent.

Aggregate Marks in Science Group (Physics, Chemistry and Biology).

Marks in Biology and Chemistry.

Marks in Biology.

A candidate who has not opted for Mathematics and Statistics as one of the Subject at H.S.C. (Std.XII) shall have to satisfactorily complete a course on Mathematics and Statistics (of 15 hours duration) during the academic year of First year B.Sc. in which he/she is admitted.

The University of Mumbai has introduced Choice Based Credit and Grading System (CBCGS) with effect from the academic year 2016–2017 where in the entire program is divided into Six semesters spread in the span of three years (two semesters per year). The student who enrolls for the degree program must accumulate 20 credits per term and the degree will be conferred only when the student accumulates 120 credits during the period of Six semesters

# F.Y.B.Sc. SEMESTER I and SEMESTER II (BIOTECHNOLOGY)\*

SEMESTER I			
Course Code	Course Type	Course Title	Credits
USBT101	Core Subject	Fundamentals of biotechnology-I	2
USBT102	Core Subject	Microbiology-I	2
USBT103	Core Subject	Basic Chemistry-I	2
USBT104	Core Subject	Biochemistry: Concept of Biomolecules-I	2
USBT105	Core Subject	Genetics	2
USBT106	Core Subject	Molecular biology-I	2
USBT107	Ability Enhancement Course 1 (FC I)	Ability enhancement course - Communication skills	2
USBTP101,USBT	Core Subject	Practicals of USBT101, USBT102, USBT103,	6
P102,USBTP103	Practicals	USBT104, USBT105 and USBT106	O
SEMESTER II			
Course Code	Course Type	Course Title	Credits
USBT201	Core Subject	Fundamentals of Biotechnology- II	2
USBT202	Core Subject	Cell biology and Microbiology-II	2
USBT203	Core Subject	Basic Chemistry-II	2
USBT204	Core Subject	Biochemistry: Concept of Biomolecules-II and Basic analytical techniques	2
USBT205	Core Subject	Physiology and Immunology	2
USBT206	Core Subject	Basic Computers and Biostatistics	2
	Ability	Ability enhancement course -	
USBT207	Enhancement	Sustainable development and	2
	Course 2 (FC II)	Environmental biotechnology	
USBTP201, USBTP202, USBTP203	Core Subject Practicals	Practicals of USBT201, USBT202, USBT203, USBT204, USBT205 and USBT206	6

<sup>\*</sup>The Syllabus for F.Y.B. Sc (Biotechnology) is due for revision in academic year 2021-2022

# S.Y.B.Sc. SEMESTER III and SEMESTER IV (BIOTECHNOLOGY)

SEMESTER III					
Course code	Course type	Course Title	Credits		
USBT301	Core Subject	Biophysics	2		
USBT302	Core Subject	Applied Chemistry- I	2		
USBT303	Core Subject	Immunology	2		
USBT304	Core Subject	Cell Biology and Cytogenetic	2		
USBT305	Core Subject	Molecular Biology	2		
USBT306	Skill Enhancement Elective	Bioprocess Technology	2		
USBT307	General Elective	Research Methodology	2		
USBTP301	Core Subject Practical	Practical of USBT_301 and USBT_302	2		
USBTP302	Core Subject Practical	Practical of USBT_303 and USBT_304	2		
USBTP303	Core Subject and Skill Enhancement Elective Practical	Practical of USBT_305 and USBT_306	2		

### **SEMESTER IV**

Course code	Course type	Course Title	Credits
USBT401	Core Subject	Biochemistry	2
USBT402	Core Subject	Applied Chemistry- II	2
USBT403	Core Subject	Medical Microbiology	2
USBT404	Core Subject	Environmental Biotechnology	2
USBT405	Core Subject	Biostatistics and Bioinformatics	2
USBT406	Skill Enhancement Elective	Molecular Diagnostics	2
USBT407	General Elective	Entrepreneurship Development	2
USBTP401	Core Subject Practicals	Practicals of USBT_401 and USBT_402	2
USBTP402	Core Subject Practicals	Practicals of USBT_403 and USBT_404	2
USBTP403	Core Subject and Skill Enhancement Elective Practicals	Practicals of USBT_405 and USBT_406	2

# T.Y.B.Sc. SEMESTER V and SEMESTER VI (BIOTECHNOLOGY) Revised by the University of Mumbai from the Academic year 2018-19

# TYBSC Biotechnology Course Structure Semester V

Code Course USBT	Title	Theory /Practical	Marks	Credits	Lectures & Nos of Practical
501	Cell biology	Theory	100	2.5	60
502	Medical Microbiology & Instrumentation	ineory	100	2.5	60
503	Genomes and Molecular Biology	Theory	100	2.5	60
504	Marine Biotechnology	Theory	100	2.5	60
P501+502	Cell biology+ Medical Microbiology & Instrumentation	Practical	100	3.0	72
P503+504	Molecular Biology+ Genomes and Marine Biotechnology	Practical	100	3.0	72
Applied Component	Biosafety	Theory	100	2.0	48
	Biosafety	Practical	100	2.0	48
	TOTAL		800	20	480

#### Semester VI

Code Course USBT	Title	·Theory/ Practical	Marks	Credits	& · Practical Nos of Lectures
601	Biochemistry	Theory	100	2.5	60
602	Industrial Microbiology	Theory	100	2.5	- 60
603	Pharmacology and Neurochemistry	Theory	100	2.5	60
604	Environmental Biotechnology	Theory	100	2.5	60
P 601-P 602	Biochemistry& Industrial Microbiology	Practical	100	3	72
P 603-P 604	Biotechnology (50M)+ Project work (50M) Neurochemistry and Environmental Pharmacology -	Practical	100	3	. 72
Applied component	Agribiotechnology	Theory	100	2.0	. 48
Applied component	Agribiotechnology	Practical	100	2.0	48
	TOTAL		800	20	. 480

### **Teaching pattern:**

One (01) Credit would be of thirty- forty (30-40) learning hours; of this more than fifty percent of the time will be spent on class room instructions including practical as prescribed by the University. Rest of the time spent invested for assignments, projects, journal writing, case studies, library work, industrial visits, attending seminars / workshops, preparations for examinations etc. would be considered as notional hours. The present syllabus considers (60L as class room teaching and 15 lectures as Notional hours/paper). Each lecture duration would be for 48 min additional reference books, online lectures, videos, science journals for latest/ additional information.

### **B.Sc.** (Biochemistry)

<u>Eligibility:</u> O.5108 A Candidate for being eligible for admission to the Three year Integrated course leading to the degree of Bachelor of Science (B.Sc.) must have passed Higher Secondary School Certificate Examination (Std. XII) in Science conducted by the Maharashtra State Board of Secondary and Higher Secondary Education or its equivalent in Science stream.

Admission will be on merit, based on order of preference as follows:

- ✓ Aggregate Marks at H.S.C. or equivalent.
- ✓ Aggregate Marks in Science Group (Physics, Chemistry and Biology).
- ✓ Marks in Biology and Chemistry.
- ✓ Marks in Biology.

The University of Mumbai has introduced CBSGS (Credit Based System Grading System from 2011-2012 where in the entire program is divided into six semesters spread in the span of three years (two semesters per year). The student who enrolls for the degree program has to accumulate 20 credits per term and the degree will be conferred only when the student accumulates 120 credits during the period of six semesters

The students who enroll for B.Sc Biochemistry has following combinations for the period of three years

First year- Semester I and Semester II: **Foundation course & Chemistry – Biochemistry –**Botany (2 papers + practical each)

Second year- Semester III & Semester IV : Foundation course & Chemistry – Biochemistry (3 papers + practical each)

Third year- Semester V and Semester VI \* - Syllabus under revision (2018-19)

COURSE CODE	NOMENCLATURE	CREDITS
	SEMESTER I	
USBC101	Biomolecules and Nutrition	2
	• Water	
	Amino acids and proteins	
	Carbohydrates	
USBC102	Introduction to Cell biology, Physiology and Microbiology	2
	Origin of Life & Formation of cells	
	The cell wall, cell membrane, cell organelles and cell division	
	Cell Organelles	
USBCP1	Practicals based on both courses in theory	2

COURSE CODE	NOMENCLATURE	CREDITS
	SEMESTER II	
USBCP201	Biomolecules and Nutrition	2
	• Lipids	
	Nucleic Acids	
	• Nutrition	
USBCP202	Introduction to Cell biology, Physiology and Microbiology	2
	• Nucleus	
	• Physiology	
	Introduction to Microbiology	
USBSP2	Practicals based on both courses in theory	2

(Note: In addition to above the student has to appear for a course in Chemistry, Botany and Foundation course to earn remaining 14 credits each semester)

# **B.Sc.** (Biotechnology)

The syllabus is under revision for the academic year 2018-2019

### **SEMESTER III**

Course Code & title	UNIT	TOPICS	Credits	L / Week
US BCH 301	1	Acids, bases, buffers and ionic equilibria		. 1
biophysical methods	Ш	Physicochemical principles	2	. 1
Bio-organic chemistry &	Ш	Microscopy	•	. 1
Genetics and	1	Genetics I	. 2	. 1
Physiology US BCH 302	Ш	Blood and Body fluids	۷	. 1
Fundamentals of	Ш	Biological transport mechanisms		1
US BCH 303	1	Introduction to microbiology and cell culture	2	1
Applied Biochemistry I	II	Fermentation and downstream processing		1
	III	Industrial biotechnology		. 1
US BCH P3	Pr	actical's based on both courses in theory	3	9

<sup>\*</sup> The syllabus is under revision for the academic year 2018-2019

#### **SEMESTER IV**

Course Code & Title	UNIT	TOPICS	Credits	L / Week
biophysical	_	Enzymology	2	1
	II	Plant growth regulators and endocrinology		1
	III	Approaches to biochemical investigations		1
of Genetics and	_	Genetics II	2	1
	П	Movement and locomotion		1
	III	Neurophysiology		1
US BCH 403	_	Trends in biotechnology	2	1
Applied	Ш	Introduction to pharmacology	•	1
Biochemistry II	III	Resource management		1
US BCH P4	Practi	cal's based on both courses in theory	3	9

### **B.Sc. ZOOLOGY**

A Candidate for being eligible for admission to the Three year Integrated course leading to the degree of Bachelor of Science (B.Sc.) must have passed Higher Secondary School Certificate Examination (Std. XII) in Science conducted by the Maharashtra State Board of Secondary and Higher Secondary Education or its equivalent in Science stream.

### Admission will be on merit, based on order of preference as follows:

- ✓ Aggregate Marks at H.S.C. or equivalent.
- ✓ Aggregate Marks in Science Group (Physics, Chemistry and Biology).

The University of Mumbai has introduced CBSGS (Credit Based System Grading System from 2011-2012 where in the entire program is divided into six semesters spread in the span of three years (two semesters per year). The student who enrolls for the degree program have to accumulate 20 credits per term and the degree will be conferred only when the student accumulates 120 credits during the period of six semesters.

**Objective:** To impart the knowledge of the importance of the immensely rich biodiversity through Zoological studies and to make them pioneers in sustainable use of biodiversity.

**Scopes:** Graduate candidates of Zoology have great career opportunities in various fields like Research, Defense, UPSC/MPSC, Pharmaceutical Industry, Wildlife, Marine Biology, Entrepreneurship, Banking, Teaching, Hospital Management and DMLT.

The students who enroll for B.Sc Zoology have following combinations for the period of

3 years First year- Semester I and Semester II: Foundation course

Chemistry – Botany – Zoology (2 papers + practical each)

Second year- Semester III and Semester IV: Foundation course

Chemistry –Zoology (3 papers + practical each)

**Botany- Zoology (3 papers + practical each)** 

Third year- Semester V and Semester VI: Zoology (Four papers + Four Practical)

Applied component Environmental Sciences and pollution

(1 paper and practical each)

# F.Y.B.Sc. ZOOLOGY SEMESTER I & II (Revised) 100 Marks

PAPER	COURSE CODE AND NOMENCLATURE	CREDIT
I	USZO101 – Wonders of Animal World, Biodiversity and Conservation.	2
П	USZO102 – Instrumentation and Animal Biotechnology	2
PRACTICAL	USZOP1 (Based on course USZO101 and USZO102)	2

PAPER	COURSE CODE AND NOMENCLATURE	CREDIT
I	USZO201 – Ecology and Wild Life Management	2
П	USZO202 – Nutrition, Public Health and Hygiene	2
PRACTICAL	USZOP2 (Based on course USZO201 and USZO202)	2

# S.Y.B.Sc. ZOOLOGY SEMESTER III & IV (Revised) 100 Marks

PAPER	COURSE CODE AND NOMENCLATURE	CREDIT
I	USZO201 – Ecology and Wild Life Management	2
II	USZO202- Study of Nutrition and Excretion, Respiration and Circulation, Control and Co-ordination, Locomotion and Reproduction	
Ш	USZO303 – Ecology, Parasitology, Economic Zoology	2
PRACTICAL	USZOP3 (Based on course USZO301, USZO302 and USZO203)	2

PAPER	COURSE CODE AND NOMENCLATURE	CREDIT
	USZO401 – Origin and Evolution of Life, Population Genetics and Evolution, Scientific Attitude Methodology, Writing and Ethics	2
П	USZO402 – Cell Biology, Endomembranes System, Biomolecules	2
III	USZO403 – Comparative Embryology Aspects of Human Reproduction, Pollution and its effects on organisms	2
PRACTICAL	USZOP4 (Based on course USZO401, USZO402 and USZO403)	2

# T.Y.B.Sc. ZOOLOGY SEMESTER V & VI (Revised) 100 Marks

PAPER	COURSE CODE AND NOMENCLATURE	CREDIT
I	USZO501 – Principles of Taxonomy ,Kingdom : Animalia I , Kingdom : Animalia II, Types Stuidy : Sepia	2.5
II	USZO502— Basic Hematology, Applied Hematology , Basic Immunology , Applied Immunology	2.5
III	USZO503 – Mammalian Histology, Toxicology, General Pathology , Biostatics	2.5
IV	USZO504 – Integumentary System & Derivatives, Human Osteology, Muscles of long Bones of Human Limbs , Developmental Biology of Chick	2.5
PRACTICAL	USZP05 – (Based on all four courses)	06

PAPER	COURSE CODE AND NOMENCLATURE	CREDIT
I	USZO601 – Phylum Chordata and Euchordata I, Group Euchordata II, Group Euchordata III , Type Study: Shark	2.5
II	USZO602–Enzymology, Homeostasis, Endocrinology, Animal Tissue Culture.	2.5
Ш	USZO603 – Molecular Biology, Genetic Engineering, Human Genetics, Bioinformatics.	2.5
IV	USZO604 –Environment Management, Wildlife Management, Bioprospecting and Zoopharmacognosy, Zoogeography.	2.5

PRACTICAL	USZP06 – (Based on all four courses)	06
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### T.Y.B.Sc. ZOOLOGY SEMESTER V APPLIED COMPONENT

#### **ENVIRONMENTAL SCIENCES AND POLLUTION**

PAPER	COURSE CODE AND NOMENCLATURE	CREDIT
Theory	USACEVS501 – Environmental Science and Pollution	2
Practical	USACEVS5P1	2

PAPER	COURSE CODE AND NOMENCLATURE	CREDIT
Theory	USACEVS601 – Environmental Science and Pollution	2
Practical	USACEVS6P1	2

### **B.Sc.** (Botany)

O.5108 A Candidate for being eligible for admission to the Three year Integrated course leading to the degree of Bachelor of Science (B.Sc.) must have passed Higher Secondary School Certificate Examination (Std.XII) in Science conducted by the Maharashtra State Board of Secondary and Higher Secondary Education or its equivalent in Science stream.

### ✓ Aggregate Marks at H.S.C. or equivalent. (Biology Compulsory)

The University of Mumbai has introduced CBSGS (Credit Based System Grading System from 2011-2012 where in the entire program is divided into six semesters spread in the span of three years (two semesters per year). The student who enrolls for the degree program has to accumulate 20 credits per term and the degree will be conferred only when the student accumulates 120 credits during the period of six semesters

First year- Semester I and Semester II: Foundation course & Chemistry – Botany -

Zoology (2 papers + practical each)

OR

Foundation course & Chemistry – Biochemistry – Botany (2 papers + practical each)

Second year- Semester III and Semester IV : Foundation course& Chemistry – Botany (3 papers + practical each)

OR

Foundation course & Botany- Zoology (3 papers + practical each)

Third year- Semester V and Semester VI : Offered as Six Units as well as Three units.

# F.Y.B.Sc. SEMESTER I and SEMESTER II (BOTANY)

COURSE CODE	NOMENCLATURE	CREDITS
	SEMESTER I	
USBO101	PLANT DIVERSITY I	2
	Algae	
	• Fungi	
	Bryophyta	
USB0102	FORM & FUNCTION I	2
	Cell Biology	
	Ecology	
	Genetics	
USBOP1	Practical based on above theory topics	2
	SEMESTER II	
USBO201	PLANT DIVERSITY I	2
	Pteridophytes	
	Gymnosperms	
	Angiosperms	
USBO202	FORM & FUNCTION I	2
	Anatomy	
	Physiology	
	Medicinal Botany	
USBOP2	Practical based on above theory topics	2

(Note: In addition to above the student has to appear for a course in Chemistry, Zoology/ Biochemistry and Foundation Course to earn remaining 14 credits each semester)

# S.Y. B.Sc. SEMESTER III and SEMESTER IV (BOTANY)

NOMENCLATURE	CREDITS	
SEMESTER III		
PLANT DIVERSITY II		
Thallophyta – Algae & Bryophyta	2	
Angiosperms	2	
Modern Techniques to study plant diversity		
FORM & FUNCTION II		
Cell Biology		
Cytogenetics	2	
Molecular Biology		
CURRENT TRENDS IN PLANT SCIENCES I		
Pharmacognosy & Phytochemistry		
Forestry & Economic Botany	2	
Industry based on Plant Products		
Practicals based on all the three courses in theory	3	
SEMESTER IV		
PLANT DIVERSITY II		
Thallophyta: Plant Pathology, Lichens & Fungi		
Pteridophyta and Paleobotany	2	
Gymnosperms		
FORM AND FUNCTION II		
Anatomy		
Physiology and Plant Biochemistry		
Ecology and Environmental Botany		
CURRENT TRENDS IN PLANTS SCIENCES I	2	
Horticulture and Gardening		
	SEMESTER III  PLANT DIVERSITY II  Thallophyta – Algae & Bryophyta  Angiosperms  Modern Techniques to study plant diversity  FORM & FUNCTION II  Cell Biology  Cytogenetics  Molecular Biology  CURRENT TRENDS IN PLANT SCIENCES I  Pharmacognosy & Phytochemistry  Forestry & Economic Botany  Industry based on Plant Products  Practicals based on all the three courses in theory  SEMESTER IV  PLANT DIVERSITY II  Thallophyta: Plant Pathology, Lichens & Fungi  Pteridophyta and Paleobotany  Gymnosperms  FORM AND FUNCTION II  Anatomy  Physiology and Plant Biochemistry  Ecology and Environmental Botany  CURRENT TRENDS IN PLANTS SCIENCES I	

	Biotechnology	
	Biostatistics & Bioinformatics	
USBOP4	Practical based on all the three courses in theory	3

(Note: In addition to above the student has to appear for a course in Chemistry and Foundation Course to earn remaining 12 credits each semester)

# T.Y.B.Sc. SEMESTER V and SEMESTER VI (BOTANY)

### Semester V

COURSE CODE	UNIT	TOPICS	CREDITS	
	PLANT	DIVERSITY III		
	I	Microbiology		
USBO501	П	Algae	2.5	
	III	Fungi		
	IV	Plant Pathology		
	PLANT	DIVERSITY IV		
	1	Paleobotany		
USBO502	II	Angiosperms I	2.5	
	Ш	Anatomy I		
	IV	Palynology		
	FORM	AND FUNCTION III		
	I Cytology and Molecular Biology  II Plant Physiology I		2.5	
USBO503				
	III	Environmental Botany		
	IV	Plant Tissue Culture		
	CURRENT TRENDS IN PLANT SCIENCES II			
	1	Ethno botany and Mushroom Industry		
USBO504	II	Plant Biotechnology I	2.5	
	Ш	Instrumentation		
	IV	Pharmacognosy and Medicinal Botany		
USBOP5	Practic	al based on Two Courses in theory (501 & 502) – For 6 Units	3	
USBOP6	Practical based on Two Courses in theory (503 & 504) – For 6 Units		3	
USBOP7	Practical based on Two Courses in theory (502 & 503) – For 3 Units		3	

### Semester VI

COURSE CODE	UNIT	TOPICS	CREDITS			
	PLANT DIVER	SITY III				
	1	Bryophyta	2.5			
USBO601	П	Pteriodophyta				
	Ш	Bryophyta and Pteridodophyta : Applied Aspects				
	IV	Gymnosperms				
	PLANT DIVER	SITY IV				
	1	Angiosperms II				
USBO602	П	Anatomy II	2.5			
	Ш	Embryology				
	IV	Plant Geography				
	FORM AND F	JNCTION III				
	1	Plant Biochemistry				
USBO603	П	2.5				
	Ш	Genetics				
	IV	Biostatistics				
	CURRENT TRE					
	1	Plant Biotechnology II				
USBO604	П	Bioinformatics	2.5			
	Ш	Economic Botany				
	IV	Post-Harvest Technology				
USBOP8	SBOP8 Practical based on Two Courses in theory (601 & 602) – For 6 Units		3			
USBOP9	Practical based on Two Courses in theory (603 & 604) – For 6 Units		3			
USBOP10	Practical base	3				

### **B.Sc.** (Physics)

**Eligibility : -** Passed H.S.C. Examination (Std XII) in science conducted by the Maharashtra State Board of Higher Secondary Education or its equivalent in Science stream.

**Objective:** The objective of Physics is to impart in depth. theoretical as well as practical knowledge of science to the students in the area of Physics.

**Scope :** Graduates of Physics have better opportunities in various fields like Defence, Research & Development, Radiology, Information Technology UPSC/MPSC, Teaching, Management, ONGC, atomic energy, Astrophysics etc.

#### Structure: -

This is a semester based grading system in which examination is conducted and results are declared at the end of each semester.

### i) F.Y.B.Sc. (Physics)

Semester I and II, Each paper has theory examination of 100 marks and practical examination of 50 marks.

Passing Standards: 40% of total marks assigned to each paper.

**Theory:** Minimum 40 marks out of 100 for each paper.

**Practical:** Minimum 40% of total marks assigned to each paper.

#### ii) S.Y.B.Sc. (Physics)

Semester III and IV, Each paper has theory examination of 100 marks and practical examination of 50 marks.

**Passing Standard:** 40% of total marks assigned to each paper.

**Theory:** Minimum 40 marks out of 100 for each paper.

**Practical:** Minimum 40% of total marks assigned to each paper.

### iii) T.Y.B.Sc. (Physics)

Semester V and VI, Each paper has theory examination of 100 marks and Practical examination of 100 Marks.

**Passing Standard:** 40% of total marks assigned to each paper.

**Theory:** Minimum 40 marks out of 100 for each paper.

F.Y.B.Sc.

A Student can only opt for following group:

- 1) Physics, Chemistry, Mathematics, Foundation Course
- 2) Physics, Mathematics, Statistics, Foundation Course

S.Y.B.Sc.

A students can opt for any one of the following group:

- 1) Physics, Chemistry, Foundation Course
- 2) Physics, Statistics, Foundation Course
- 3) Physics, Mathematics, Foundation Course

T.Y.B.Sc.

A student can opt for Physics as a major subject (six units) from any of the above mentioned group selected in S.Y.B.Sc.

# F.Y.B.Sc.(Physics)

COURSE CODE	SEMESTER – I	CREDIT S	
LICPLIA	Classical Physics	2	
USPH101	Newton's law, Elasticity, Fluid Dynamics, Optics, Thermodynamics		
USPH102	Modern Physics	2	
USPH102	Structure of Nuclei, Radioactivity, Reactors and Nuclear Reaction Origin of Quantum Theory`		
USPHP1	Practical – I	2	
USFC101	FOUNDATION Course I	2	
	SEMESTER – II		
LICRUSOA	Mathematical Physics		
USPH201	Vector Algebra, Differential Equations, Wave motion, Wave intensity		
USPH202 Electricity and Electronics		2	
03111202	AC Theory, Electronics, Electrostatics and Magnetostatics		
USPHP2	USPHP2 Practical – II		
USFC201	2		

**Note:** Students should perform regular experiments of Paper I and Paper II in addition with that skills and demonstration experiments.

In addition, student has to take two papers of mathematics and two papers of chemistry and one paper of foundation course if they are taking PCM as their stream.

**OR** two paper of mathematics and two papers of statistics and one paper of foundation course if they are taking PMS as their stream.

# S.Y.B.Sc.(Physics)

COURSE CODE	SEM III	CREDITS
USPHP301	Mechanics , Thermodynamics	2
USPHP302	Electrodynamics and Electronics	2
USPHP303	Applied Physics I	2
USPHP-3P	Practical course - 3 (Group A, B, C & Skill)	3
USFC301	Foundation Course I	2

COURSE CODE	SEMESTER - IV	CREDITS
USPHP4 01	Optics, Electronics	2
USPHP4 02	Quantum Mechanics	2
USPHP4 03	Applied Physics II	2
USPHP- 4P	Practical Course -4 (Group A, B, C and Demo)	3
USFC401	Foundation Course II	2

**Note :** Students should perform regular experiments of Paper -I, Paper-II and Paper-III in addition with skills and demonstration experiments.

In addition, Students may opt for PC / PM & PS group.

If they opt **PC** Group then with addition to three papers of Physics they will have three papers of Chemistry and one papers of Foundation Course - II.

If they opt **PM** Group then with addition to three papers of physics they will have three papers of mathematics and one papers of Foundation Course - II.

If they opt **PS** Group then with addition to three papers of physics they will have three papers of statistics and one papers of Foundation Course - II.

# T.Y.B.Sc.(Physics)

COURSE CODE	SEMESTER – V	CREDIT S
USPHP501	Mathematical, Thermal and Statistical	2.5
USPHP502	Solid State Physics	2.5
USPHP503	Atomic and Molecular Physics	2.5
USPHP504	Electrodynamics	2.5
USACEI501	Applied Paper Electronic Instrumentation – I	2
USPHP505	Practical Course – 5	3
USPHP506	Practical Course – 6	3
USAEEIP50 2	Applied Paper E. I. – I Practical	2

COURSE CODE	SEMESTER – VI	CREDI TS
USPHP601	Classical Mechanics	2.5
USPHP602	Electronics	2.5
USPHP603	Nuclear Physics	2.5
USPHP604	Special Theory of Relativity and Introduction to cosmology	2.5
USACEI601	Applied Paper Electronic Instrumentation – II	2.5
USPHP07	Practical Course – 7	3
USPHP08	Practical Course – 8	
USAEEIP602	Applied Paper E. I. – II Practical	2

**Practicals:** Students should perform regular experiments of main theory papers and applied paper in addition with that skills experiments.

### **B.Sc. Chemistry**

**Eligibility:** - For admission in F.Y.B.Sc. the candidate should have passed H.Sc. Examination (XII) in Science conducted by the Maharashtra State Board of Higher Secondary Education or its equivalent in Science stream.

#### Structure of Course: -

- This is a Semester based grading system in which examination is conducted and the results are declared at the end of each semester.
- ii) F.Y.B.Sc. (Chemistry Subject) consists of semester I and semester II. Comprising of Chemistry paper 1 and Chemistry paper 2 & S.Y. B.Sc. (Chemistry) consists of semester III and semester IV comprising of chemistry paper 1, chemistry paper 2 and Chemistry paper 3.

Each paper has theory examination of 100 marks and practical examination of 50 marks.

Passing Standard: 40% of compulsory total marks assigned to each paper. Theory: Minimum 40 marks out of 100 for each paper.

Practical: Minimum 40% of total marks assigned to total practicals.

For T.Y.B.Sc. (Chemistry subject) consists of Semester V and Semester VI Comprising of 5 papers in each semester. Out which 4 papers are called as major papers and paper 5 is called as applied component.

Each major paper has theory examination of 100 marks, and Practical Examination of 50 marks. While applied component has theory examination of 100 marks and practical examination of 100 marks.

Passing Standard: 40% of compulsory total marks assigned to each paper. Theory: Minimum 40 marks out of 100 for each paper.

Practical: Minimum 40% of total marks assigned to each paper.

#### F.Y.B.Sc.:

A student can opt for any one of the following groups:

- 1. Chemistry, Physics, Mathematics, Foundation course I
- 2. Chemistry, Botany, Zoology, Foundation course I
- 3. Chemistry, Biochemistry, Botany, Foundation course I

#### S.Y.B.Sc.:

A student can opt for any one of the following group depending on the group selected in **F.Y.B.Sc.**:

- 1. Chemistry, Physics, Foundation Course II
- 2. Chemistry, Botany, Foundation course II
- 3. Chemistry, Zoology, Foundation course II
- 4. Chemistry, Biochemistry, Foundation course II

#### T.Y.B.Sc.:

A student can opt for Chemistry as a major subject (six units) from any of the above mentioned group selected in S.Y.B.Sc.

### 4) Objectives and Scope:

The objective of the department is to impart knowledge to students to excel in their academics, to meet challenges in real life and participate in research activity.

There are maximum opportunities for Chemistry students after completion of their graduation / post-graduation in diverse fields and industries such as Pharmaceutical Industry, Food Industry, Paint Industry, Polymer Industry, Cosmetics Industry etc.

Sr.	Paper Title	Course Code	Credits		Credits	
No.		(Theory)		(Practical)		
Class	s : F.Y.B.Sc. Semester I					
1	Chemistry Paper I	USCH101	2	USCHP1	2	
2	Chemistry Paper II	USCH102	2			
	Class : F.Y.B.Sc. Semester II					
1	Chemistry Paper I	USCH201	2	USCHP2	2	
2	Chemistry Paper II	USCH202	2			

	Class : S.Y.B.Sc. Semester III						
1	Chemistry Paper I	USCH301	2	USCHP3	3		
2	Chemistry Paper II	USCH302	2				
3	Chemistry Paper III	USCH303	2				
	Class	: S.Y.B.Sc. Semes	ster IV				
1	Chemistry Paper I	USCH401	2	USCHP4	3		
2	Chemistry Paper II	USCH402	2				
3	Chemistry Paper III	USCH403	2				
	Class	: T.Y.B.Sc. Semes	ster V				
1	Paper I Physical Chemistry	USCH501	2.5	USCHP5	3		
2	Paper II Inorganic Chemistry	USCH502	2.5	USCHP6	3		
3	Paper III Organic Chemistry	USCH503	2.5				
4	Paper IV Analytical Chemistry	USCH504	2.5				
5	Paper V Applied Component	USCHAC5DD1	2	USCHACDD5P1	2		
	Class	: T.Y.B.Sc. Seme	ster VI				
1	Paper I Physical Chemistry	USCH601	2.5	USCHP7	3		
2	Paper II Inorganic Chemistry	USCH602	2.5	USCHP8	3		
3	Paper III Organic Chemistry	USCH603	2.5				
4	Paper IV Analytical Chemistry	USCH604	2.5				
5	Paper V Applied Component	USCHAC6DD1	2	USCHACDD6P1	2		

### **B.Sc. Mathematics**

**Eligibility:** - Passed H.S.C. Examination (Std XII) in science conducted by the Maharashtra State Board of Higher Secondary Education or its equivalent in science stream.

Passing Standards: - Internal Assessment: - min 10 out of 25

Theory Paper: -

min 30 out of

75 Total marks

: - min 40 out of

100

#### **Objectives and Scope:**

The objectives of the department is to create an atmosphere of learning and research and to develop personal, professional and social growth of the students.

There are many opportunities for students after completion of their graduation such as actuarial profession, Accountancy and professional services, Banking, Engineering Sciences, General management, Operational research, Statistical research, teaching field etc.

### F.Y.B.Sc.(Mathematics)

Course Code	SEM I		Course Code	SEM II	Credits
USMT101	Calculus I	3	USMT201	Calculus II	3
USMT102	Algebra I	3	USMT202	Linear Algebra	3

In addition, PCM Student has to take 2 papers of Chemistry, 2 papers of Physics & 1 paper of Foundation Course and CS student has to take 2 papers of Computer science, 2 papers of Physics & 1 paper of Foundation Course.

# S. Y. B.Sc. (Mathematics)

Course Code	SEM III		Course Code	SEM IV	Credits
USMT301	Calculus III	3	USMT401	Calculus IV	3
USMT302	Algebra III	3	USMT402	Algebra IV	3
USMT303	Discrete Mathematics	3	USMT403	Ordinary Differential Equations	3

In addition, PM student has to take 3 papers of Physics & 1 paper of Foundation Course and CS student has to take 3 papers of Computer science& 1 paper of Foundation Course

# T. Y. B.Sc. (Mathematics)

	SEM V	Credits	SEM VI	Credits
1.	Multivariable calculus II USMT501	2.5	Basic Complex Analysis USMT601	2.5
2.	Linear Algebra USMT502	2.5	Algebra USMT602	2.5
3.	Topology of metric spaces I USMT503	2.5	3.Topology of metric spaces and real analysis II USMT603	2.5
4.	Graph theory (Elective C) USMT5C4	2.5	Graph theory & combinatory (Elective C) USMT6C4	2.5
5.	Computer Programming & system analysis	2	Computer Programming & system analysis	2
6.	Praticals based on USMT 501 & USMT 502	3	Praticals based on USMT 601 & USMT 602	3
7.	Praticals based on USMT 503 & USMT 504	3	Praticals based on USMT 603 & USMT 604	3
8.	Praticals of Computer Programing & System Analysis	2	Practical of Computer Programing & System Analysis	2

### **B.Sc. Statistics**

**Eligibility:** - Passed H.S.C. Examination (Std XII) in science conducted by the Maharashtra State Board of Higher Secondary Education or its equivalent in science stream.

Passing Standards: - Internal Assessment: - min 10 out of 25

Theory Paper: - min 30 out of 75

: - min 40 out of 100

#### **Objectives and Scope:**

The course will enable the students to (a) understand basic concepts and aspects related to research, **data** collection, analyses and interpretation,

(b) Prepare and finalize research report on some real life situations.

With a bachelor's degree in **Statistics**, one can become a business analyst, research officer, data analyst or even an investigator. Statisticians are also required in the government sector to work on studies and research on consumer prices, fluctuations in the economy, employment patterns, population trends, etc.

# F.Y.B.Sc. (Statistics)

Course Code	SEM I		Course Code	SEM II	Credits
USST101	DESCRIPTIVE STATISTICS-I	2	USST201	DESCRIPTIVE STATISTICS-II	2
USST102	STATISTICAL METHODS-I	2	USST202	STATISTICAL METHODS-II	2
USSTP1	PRACTICAL-1	2	USSTP2	PRACTICAL-2	2

In addition, PMS Student has to take 2 papers of Physics, 2 papers of Mathematics & 1 paper of Foundation Course.

# S. Y. B.Sc. (Statistics)

Course Code	SEM III	Credits	Course Code	SEM IV	Credits
USST301	PROBABILITY OF DISTRIBUTIONS	2	USMT401	PROBABILITY AND SAMPLING DISTRIBUTIONS	2
USST302	THEORY OF SAMPLING	2	USMT402	ANALYSIS OF VARIANCE & DESIGN OF EXPERIMENTS	2
USST303	OPERATION RESEARCH-1	2	USMT403	OPERATION RESEARCH-2	2
USSTP3 USSTP3(A) USSTP3(B)		1	USSTP4 USSTP4(A)	Practicals based on USST401	1
USSTP3(C)	Practicals based on USST302  Practicals based on		USSTP4(B)	Practicals based on USST402	1
	USST303		USSTP4(C)	Practicals based on USST403	1

In addition, PS student has to take 3 papers of Physics & 1 paper of Foundation Course.

MS students has to take 3 papers of Mathematics &1 paper of foundation course.

# T. Y. B.Sc. (Statistics)

Course Code	SEM V	
USST501	PROBABILITY AND DISTRIBUTION THEORY	2.5
USST502	THEORY OF ESTIMATION	2.5
USST503	BIOSTATISTICS	2.5
USST504(A) (Elective)	Regression Analysis using R software	2.5
USST504(B) (Elective)	Statistical Data Analysis using PYTHON	2.5
USSTP05	Practicals of course USST501+USST502	3
USSTP06	Practicals of course USST503+USST504	3

Course Code	SEM VI	Credits
USST601	DISTRIBUTION THEORY AND STOCHASTIC PROCESSES	2.5
USST602	TESTING OF HYPOTHESIS	2.5
USST603	OPERATIONS RESEARCH TECHNIQUES	2.5
USST604(A) (Elective)	ACTURIAL SCIENCE	2.5
USST604(B) (Elective)	INTRODUCTION TO SIX SIGMA	2.5
USSTP07	Practicals of course USST601+USST602	3
USSTP08	Practicals of course USST603+USST604	3

#### **Semester End Examination:**

**Theory:** At the end of the semester, Theory examination of three hours duration and 100 marks based on the four units shall be held for each course.

**Practicals :** At the end of the semester, Practical examination of 3 hours duration and 100 marks (80+10+10) shall be held for each course.

### **B.Sc. Computer Science (B.Sc.CS)**

**sEligibility**: A candidate being eligible for admission to the three years integrated course leading to the degree of Bachelor of Science (B.Sc.) must have passed Higher Secondary Examination (std XII) in Science stream conducted by the Maharashtra State Board of Secondary and Higher Secondary Education with Mathematics and Statistics as one of the subject or its equivalent.

#### Admission will be on merit, based on order of preferences as follows:

- 1. Aggregate marks at HSC or equivalent.
- 2. Aggregate marks in Science group (PCM)
- 3. Marks in Mathematics, Statistics and Physics.

Passing Standards: - Theory paper – Min 30 out of 75
Internal Assessment - MIN 10 out of 25

**Objectives:** The IT sector, apart contributing immensely to the economy, has thrown open the door to a piethora of opportunities and challenges. As IT business grew exponentially, in terms complexity and competition, the need for industry specialized education, too has increased by leaps and bounds. Towards this end, B.SC. (CS) now offers perfectly designed course pattern to keep with the changing times and technology. The basic objective of this course is to impart appropriate management and technology skills coupled with the latest techniques in the field of Electronics and Computers.

# F. Y. B.Sc. (Computer Science) – Sem I and Sem II

Seme	ster I			
Sr.N	Subject Code	Subject Name	Credits	Lectures/ Week
01	USCS101	Digital Systems & Architecture	2	3
02	USCSP101	Digital Systems & Architecture – Practical	1	3
03	USCS102	Introduction to Programming with Python	2	3
04	USCSP102	Introduction to Programming with Python – Practical	1	3
05	USCS103	LINUX Operating System	2	3
06	USCSP103	LINUX Operating System – Practical	1	3
07	USCS104	Open Source Technologies	2	3
08	USCSP104	Open Source Technologies – Practical	1	3
09	USCS105	Discrete Mathematics	2	3
10	USCSP105	Discrete Mathematics – Practical	1	3
11	USCS106	Descriptive Statistics	2	3
12	USCSP106	Descriptive Statistics – Practical	1	3
13	USCS107	Soft Skills	2	3

Seme	Semester II						
Sr.N	Subject	Subject Name	Credits	Lectures/			
0	Code			Week			
01	USCS201	Design & Analysis of Algorithms	2	3			
02	USCSP201	Design & Analysis of Algorithms – Practical	1	3			
03	USCS202	Advanced Python Programming	2	3			
04	USCSP202	Advanced Python Programming – Practical	1	3			
05	USCS203	Introduction to OOPs using C++	2	3			
06	USCSP203	Introduction to OOPs using C++ -Practical	1	3			
07	USCS204	Database Systems	2	3			
08	USCSP204	Database Systems – Practical	1	3			
09	USCS205	Calculus	2	3			
10	USCSP205	Calculus – Practical	1	3			
11	USCS206	Statistical Methods	2	3			
12	USCSP206	Statistical Methods – Practical	1	3			
13	USCS207	E-Commerce & Digital Marketing	2	3			

# S. Y. B.Sc. (Computer Science)

	SEMESTER – III						
Sr.No	Subject Code	Subject Name	Credits	Lectures/Week			
01	USCS301	Theory Of Computations	2	3			
02	USCS302	Core JAVA	2	3			
03	USCS303	Operating System	2	3			
04	USCS304	Database Management Systems	2	3			
05	USCS305	Combinatorics and Graph Theory	2	3			
06	USCS306	Physical Computing and IoT Programing	2	3			
07	USCS307	Skill Enhancement : Web programing	2	3			
08	USCSP301	USCS302+USCS303+USCS304	3	9			
09	USCSP302	USCS305+USCS306+USCS307	3	9			

	SEMESTER – IV						
Sr.No	Subject Code	Subject Name	Credits	Lectures/Week			
01	USCS401	Fundamental Algorithms	2	3			
02	USCS402	Advanced JAVA	2	3			
03	USCS403	Computer Networks	2	3			
04	USCS404	Software Engineering	2	3			
05	USCS405	Linear Algebra Using Python	2	3			
06	USCS406	NET Technologies	2	3			
07	USCS407	Skill Enhancement :Android Developer Fundamental	2	3			
08	USCSP401	USCS401+USCS402+USCS403	3	9			
09	USCSP402	USCS405+USCS406+USCS407	3	9			

## T. Y. B.Sc. (Computer Science)

	SEMESTER V					
Course	TOPICS	Credits	L / Week			
	Elective-I (Select Any Two)					
USCS501	Artificial Intelligence	3	3			
USCS502	Linux Server Administration	3	3			
USCS503	Software Testing and Quality Assurance	3	3			
	Elective-II (Select Any Two)					
USCS504	Information and Network Security	3	3			
USCS505	Architecting of IoT	3	3			
USCS506	Web Services	3	3			
	Skill Enhancement					
USCS507	Game Programming	2	3			
	Practical					
USCSP501	Practical of Elective-I	2	6			
USCSP502	Practical of Elective-II	2	6			
USCSP503	Project Implementation	1	3			
USCSP504	Practical of Skill Enhancement : USCS507	1	3			

	SEMESTER VI					
Course	TOPICS	Credits	L / Week			
	Elective-I (Select Any Two)					
USCS601	Wireless Sensor Networks and Mobile	3	3			
	Communication					
USCS602	Cloud Computing	3	3			
USCS603	Cyber Forensics	3	3			
	Elective-II (Select Any Two)					
USCS604	Information Retrieval	3	3			
USCS605	Digital Image Processing	3	3			
USCS606	Data Science	3	3			
	Skill Enhancement					
USCS607	Ethical Hacking	2	3			
	Practical					
USCSP601	Practical of Elective-I	2	6			
USCSP602	Practical of Elective-II	2	6			
USCSP603	Project Implementation	1	3			
USCSP604	Practical of Skill Enhancement : USCS607	1	3			

### **B.Sc. Data Science (B.Sc. DS)**

**Eligibility:** A candidate being eligible for admission to the three years integrated course leading to the degree of Bachelor of Science (B.Sc.) in Data Science must have passed Higher Secondary Examination (Std XII) or equivalent in any stream Or 3 years Diploma from MSBTE or equivalent.

Admission will be on merit, based on order of preferences as follows:

1. Aggregate marks at HSC or equivalent.

2. Passing Marks: 40%

**Passing Standards: -** Theory paper – Min 30 out of 75

Internal Assessment - MIN 10 out of 25

#### Objectives: -

The IT sector, apart contributing immensely to the economy, has thrown open the door to a plethora of opportunities and challenges. As IT business grew exponentially, in terms complexity and competition, the need for industry specialized education, too has increased by leaps and bounds. Data Science is new and upcoming area helps us to find hidden insights from raw data in the formulation of business decisions.

Towards this end, B.SC. (DS) now offers perfectly designed course pattern to keep with the changing times and technology. This new field of study breaks down into a number of different areas, from constructing big data infrastructure and configuring the various server tools that sit on top of the hardware, to performing the analysis and developing the right transformations to generate useful results.

# F.Y.B.Sc.(Data Science )- Sem I And Sem II

SEMESTER 1						
Course Code	Course Type	Course Name	Credits	Marks		
USDS101	DSC	Descriptive Statistics	2	100		
USDS1P1	DSC	Descriptive Statistics Practical	2	50		
USDS102	DSC	Introduction to Programming	2	100		
USDS1P2	DSC	Introduction to Programming Practical	2	50		
USDS103	DSC	Web Technology	2	100		
USDS1P3	DSC	Web Technology Practical	2	50		
USDS104	AECC	Business Communication and Information Ethics	2	100		
USDS1P4	AECC	ICT Practical	2	50		
USDS105	DSC	Precalculus	2	100		
USDS1P5	DSC	Precalculus Tutorials	2	50		
		Total	20	750		

		SEMESTER 2		
Course Code	Course Type	Course Name	Credits	Marks
USDS201	DSC	Probability and Distributions	2	100
USDS2P1	DSC	Probability and Distributions Practical	2	50
USDS202	DSC	Database Management	2	100
USDS2P2	DSC	Database Management Practical	2	50
USDS203	DSC	R Programming	2	100
USDS2P3	DSC	R Programming Practical	2	50
USDS204	AECC	Environmental Science	2	100
USDS2P4	AECC	Project Presentation on Data Science in Environmental Science.	2	50
USDS205	DSC	Calculus	2	100
USDS2P5	DSC	Calculus Tutorials	2	50
		Total	20	750

# S.Y.B.Sc.(Data Science )- Sem III And Sem IV

	SEMESTER 3					
Course Code	Course Type	Course Name	Credits	Marks		
USDS301	DSC	Research Methods and Ethics	2	100		
USDS3P1	DSC	Research Methods and Ethics Practical	2	50		
USDS302	DSC	Data Structures and Algorithms using Python	2	100		
USDS3P2	DSC	Data Structures and Algorithms using Python Practical	2	50		
USDS303	SEC	Economics	2	100		
USDS3P3	SEC	Economics Practical	2	50		
USDS304	DSC	Data Warehousing and Mining	2	100		
USDS3P4	DSC	Data Warehousing and Mining Practical	2	50		
USDS305	DSC	Linear Algebra and Discrete Mathematics	2	100		
USDS3P5	DSC	Linear Algebra and Discrete Mathematics Practical	2	50		
		Total	20	750		

	SEMESTER 4					
Course Code	Course Type	Course Name	Credits	Marks		
USDS401	DSC	Testing of Hypothesis	2	100		
USDS4P1	DSC	Testing of Hypothesis Practical	2	50		
USDS402	DSC	Big Data	2	100		
USDS4P2	DSC	Big Data Practical	2	50		
USDS403	SEC	Fundamentals of Accounting	2	100		
USDS4P3	SEC	Fundamentals of Accounting Practical	2	50		
USDS404	DSC	Artificial Intelligence	2	100		
USDS4P4	DSC	Artificial Intelligence Practical	2	50		
USDS405	DSC	Numerical Methods	2	100		
USDS4P5	DSC	Numerical Methods Practical	2	50		
		Total	20	750		

# B.Sc.( Information Technology)

#### Eligibility: -

- 1. All the admission will be on merit.
- 2. H.S.C. passed with minimum 45% for GENERAL category and 40% for RESERVED category students with Mathematics as compulsory subject in one & the same sitting.
- 3. Direct admission to second year B.Sc. I.T. for Engineering Diploma passed students (subject to availability of seats).

Passing Standards: - Theory paper – Min 30 out of 75
Internal assessment – Min 10 out of 25

**Objectives:** - The B.Sc. I.T. Viva College aims to synergize Information Technology in its entire ramification. To meet the objectives the program is designed to provide basic input in various aspects and a broad understanding of IT and its interdisciplinary interface. The focus of the program is IT and Management of Information Technology.

In today's world of cyberspace, information, communication and information technologies are buzzwords for entity's success. These entities can be person, business, industries, or research and development. Today merely getting information is not that important, as it is important to get the right information at right time & to communicate at the right place.

This could be possible by adopting technology and technological know-how.

The world is looking out for information with speed and accuracy and for this we require Information technology. Every business today is information technology enabled. Since it is IT enabled world, students of information technology has job opportunity not only in computer industry but also in Engineering, Military, Data Communication and the list goes n and on....

## F.Y.B.Sc. (Information Technology)

-1	SEMESTER - 1				
Course	Course Type	Course Title	Credits		
USIT101	Core Subject	Imperative Programming	2		
USIT102	Core Subject	Digital Electronics	2		
USIT103	Core Subject	Operating Systems	2		
USIT104	Core Subject	Discrete Mathematics	2		
USIT105	Ability Enhancement Skill Course	Communication Skills	2		
USITIP1	Core Subject Practical	Imperative Programming Practical	2		
USIT1P2	Core Subject Practical	Digital Electronics Practical	2		
USIT1P3	Core Subject Practical	Operating Systems Practical	2		
USIT1P4	Core Subject Practical	Discrete Mathematics Practical	2		
USIT1P5	Ability Enhancement Skill Course Practical	Communication Skills Practical	2		
		Total Credits	20		

	SEMESTER – 2				
Course	Course Type	Course Title	Credits		
USIT201	Core Subject	Object oriented Programming	2		
USIT202	Core Subject	Microprocessor Architecture	2		
USIT203	Core Subject	Web Programming	2		
USIT204	Core Subject	Numerical and Statistical Methods	2		
USIT205	Ability Enhancement Skill Course	Green Computing	2		
USIT2P1	Core Subject Practical	Object Oriented Programming Practical	2		
USIT2P2	Core Subject Practical	Microprocessor Architecture Practical	2		
USIT2P3	Core Subject Practical	Web Programming Practical	2		
USIT2P4	Core Subject Practical	Numerical and Statistical Methods Practicala	2		
USIT2P5	Ability Enhancement Skill Course Practical	Green Computing Practical	2		
		Total Credits	20		

## S.Y.B.Sc. (Information Technology)

Semester III				
Sr.No	Subject Code	Subject Name	Credits	
01	USCS301	Python Programing	2	
02	USCS302	Data Structure	2	
03	USCS303	Computer Networks	2	
04	USCS304	Database Management Systems	2	
05	USCS305	Applied Mathematics	2	
06	USIT3P1	Python Programing Practical	2	
07	USIT3P2	Data Structures practical	2	
08	USIT3P3	Computer networks practical	2	
09	USIT3P4	Database management systems practical	2	
10	USIT3P5	Mobile programing practical	2	

	SEMESTER – IV				
			Credits		
0	Code				
01	USCS401	Core Java	2		
02	USCS402	Introduction to Embedded Systems	2		
03	USCS403	Computer Oriented Statistical Techniques	2		
04	USCS404	Software Engineering	2		
05	USCS405	Computer Graphics & Animation	2		
06	USIT4P1	Core Java Practical	2		
07	USIT4P1	Introduction to Embedded Systems Practical	2		
80	USIT4P1	Computer Oriented Statistical Techniques Practical	2		
09	USIT4P1	Software engineering practical	2		
10	USIT4P1	Computer Graphics & Animation Practical	2		

# T.Y.B.Sc. (Information Technology)

	Semester – 5		
Course	Course Type	Course Title	Credits
Code			
USIT501	Skill Enhancement Course	Software Project Management	2
USIT502	Skill Enhancement Course	Internet of Things	2
USIT503	Skill Enhancement Course	Advanced Web Programming	2
USIT504	Discipline Specific Elective (Any	Artificial Intelligence	2
USIT505	One)	Linux System Administration	] 2
USIT506	Discipline Specific Elective (Any	Enterprise Java	2
USIT507	One)	Next Generation Technologies	] 2
USIT5P1	Skill Enhancement Course	Project Dissertation	2
	Practical		
USIT5P2	Skill Enhancement Course	Internet of Things Practical	2
	Practical		
USIT5P3	Skill Enhancement Course	Advanced Web Programming Practical	2
	Practical		
USIT5P4	Discipline Specific Elective	Artificial Intelligence Practical	2
USIT5P5	Practical (Any One)*	Linux Administration Practical	
USIT5P6	Discipline Specific Elective	Enterprise Java Practical	2
USIT5P7	Practical (Any One)*	Next Generation Technologies Practical	
<b>Total Credits</b>			20

### (All the practical mentioned in the syllabi are compulsory as per the courses chosen)

	Semester – 6				
Course	Course Type	Course Title	Credits		
Code					
USIT601	Skill Enhancement Course	Software Quality Assurance	2		
USIT602	Skill Enhancement Course	Security in Computing	2		
USIT603	Skill Enhancement Course	Business Intelligence	2		
USIT604	Dissipling Specific Floating (Apr.	Principles of Geographic Information			
	Discipline Specific Elective (Any	Systems	2		
USIT605	One)	Enterprise Networking			
USIT606	Discipline Specific Elective (Any	IT Service Management	2		
USIT607	One)	Cyber Laws	2		
USIT6P1	Skill Enhancement Course	Project Implementation	2		
	Practical				

USIT6P2	Skill Enhancement Course Practical	Security in Computing Practical	2
USIT6P3	Skill Enhancement Course Practical	Business Intelligence Practical	2
USIT6P4	Dissiplina Considia Flortina	Principles of Geographic Information	
	Discipline Specific Elective Practical (Any One)*	Systems Practical	2
USIT6P5	Practical (Ally Offe)	Enterprise Networking Practical	
USIT6P6	Skill Enhancement Course	Advanced Mobile Programming	2
	Practical		
<b>Total Credits</b>			20

<sup>\*</sup>The choice of Practical course is based on the theory Course. For Semester V, USIT504, USIT505, USIT506 and USIT507, the practical courses are USIT5P4, USIT5P5 USIT5P6, USIT5P7. For Semester VI, USIT604, USIT605 the practical courses are USIT6P4, USIT6P5 respectively. Practical Course USIT6P6 is compulsory.

### **POST GRADUATE DEGREES**

#### **M.A. Economics**

#### 2 Years Degree Course

As per the ordinance and Regulations and Rules of University of Mumbai for M. A. Degree Programme (under the Credit Based Semester and Grading System) from Academic Year 2021-22. (Not applicable for course offered by Institute of Distance and open learning. 60 marks theory + 40 marks assignment and internal test per subject).

#### Eligibility: -

- 1) B. A. in Economics from University of Mumbai or any recognized University with minimum 45%.
- Provided that applications of graduated of Mumbai University in the faculties other than the faculty of Arts, or those who have passed the equivalent examination of another recognized University seeking admission to M. A. degree course by papers, will be considered by Principal of college where the Post graduate center is granted.

- 3) A written test consisting of 2 papers as under shall be administrates in the subject in which the student desires to register for his M. A. degree.
  - i) An essay paper in the subject;
  - ii) A paper to test the students general acquainted with subjects.

**Eligibility:** - B. A. in Economics from University of Mumbai or any recognized University with minimum 45%

No. of Seats: - 60

### M.A PART - I

#### Semester I

COURSE CODE	Paper	Core Subject	Credit Points
ECOME101	1	Micro Economics – I	6
ECOME102	II	Macro Economics – I	6
ECOAE103	III	Agricultural Economics	6
ECOELM104	IV	Economics of Lobour Market	6

#### Semester II

COURSE CODE	Paper	Core Subject	Credit Points
ECOME201	٧	Micro Economics – II	6
ECOME202	VI	Macro Economics – II	6
ECOADP203	VII	Agricultural Development & Policy	6
ECOTUIR204	VIII	Industry relation in India	6

## M.A PART - II

#### Semester III

COURSE CODE	Paper	Core Subject	Credit Points
ECOIE302	Χ	Industrial Economics	6
ECOPFPC303	ΧI	Public Finance & Public Choice	6
ECOITTP304	XII	International Trade: Theory & Policy	6
ECOIE306	XIV	Indian Economy	6
ECOED307	XV	Economics of Development	6

#### **Semester IV**

COURSE CODE	Paper	Core Subject	Credit Points
		Group A) Skill Enhancement	
ECOMB404	XX	Money & Banking	6
			6
		Group B) Inter Disciplinary	
ECODTP406	XXII	Demography: Theory & Policy	6
		Dissertation(Case Study)	
-	-	Dissertation	10

#### M. COM

#### 2 Years Integrated Programme - Four Semester

As per the ordinance and Regulations and Rules of University of Mumbai for M. Com. Degree Programme (under Choice Based Credit Grading and Semester System) from Academic Year 2016-17. (Not applicable for course offered by Institute of Distance and open learning). 60 marks theory + 40 marks internal test per subject.

#### **Course Offered**

M. Com. Accountancy No of Seats: - 60

#### M.Com in Banking & Finance

No. of Seats: -60

#### M.Com in Business Management

No. of Seats: -60

#### M. COM I

Master of Commerce (M. Com.)	0.2310	A candidate for being eligible for admission to the Master of Commerce course, shall have passed the examination for the degree of Bachelor of Commerce of this University (three years integrated course) of the degree of B. Com. (Old Course) of this University, or Bachelor of Commerce (Accounting and Finance).  OR  B.Com. (Banking and Insurance) OR B.M.S. degree examination or an examination of any other University recognized as equivalent thereto.  OR  B.M.M. degree examination (only for Management Specialization subjects) at the M.Com. degree levels.

### M. COM I

#### (To be implemented from Academic year 2016-2017)

No. of Course	Semester I	Credits	No. of	Semester II	Credits
1	Core Courses (CC)		1	Core Courses (CC	
1	Strategic Management	06	1	Research Methodology for Business	06
2	Economics for Business Decision	06	2	Macro Economics concepts and applications	06
3	Cost and Management Accounting	06	3	Corporate Finance	06
4	Business Ethics and Corporate Social Responsibility	06	4	E-Commerce	06
	Total Credits	24		Total Credits	24

## M. COM II

#### (To be implemented from Academic year 2017-2018)

No. of Course	Semester III	Credits	No. of Courses	Semester IV	Credits
1	Elective Courses (EC)		1	Elective Courses (EC)	
1, 2 and 3	*Any one group of courses from the following list of the courses (Group – A/B/C/D/E)	18	1, 2 and 3	**Any one group of courses from the following list of the courses (Group – A/B/C/D/E)	
2	Project Work		2	Project Work	
4	Project Work – I	06	4	Project Work – I	06
	Total Credits	24		Total Credits	24

✓ Note: Project work is considered as a special course involving application of knowledge solving

/ analyzing / exploring a real life situation / difficult problem project work would be of 06 credits. A project work may be undertaken in any area of Elective Courses.

?

	f group of Elective Courses (EC) nester III (Any Three out of Five)	**List of group of Elective Courses (EC) for Semester IV (Any Three out of Five)			
	Group A: Advanced Accounting, Co	orporat	ion Accounting and Financial M	anagement	
1	Advanced Financial 06 Accounting	5 1	Advanced Auditing	06	
2	Corporate Financial 06 Accounting	5 2	Indirect Tax	06	
3	(Skill Based): Financial06 Management	5 3	International Financial Reporting Standard	06	
4	Direct Tax 06	5 4	Personal Financial Planning	06	
5	Financial Services 06	5 5	Financial Journalism	06	
	Group B: Busi	iness St	udies (Management)		
1	Human Resource 06	5 1	Supply Chain Management and Logistics	06	
2	Rural marketing 06	5 2	Advertising and sales management	06	
3	Entrepreneurial 06 Management	5 3	Retail management	06	
4	Marketing Strategies and 06 practices	5 4	Tourism Management	06	
5	Organizational Behaviour 06	5 5	Management of Business Relations	06	
	Group C	C: Banki	ng & Finance		
1	Banking Law and Practices 06	5 1	Cooperative Banking System	06	
2	(Skill based) Legal 06 framework of banking	5 2	Financial Institutions and Markets	06	
3	Commercial Bank06 Management	5 3	Accounting and Auditing of Banking	06	
4	Investment Management 06 Analysis	5 4	International Finance	06	
5	Financial Risk Management 06	5 5	Financial Services	06	

	Group D: E-Commerce					
1	Database Management 06 System	1	E-Commerce Security and Law	06		
2	Internet & Web Designing06 (Skill Based)	2	Advance technology for E- Commerce	06		
3	Network Infrastructure and 06 Payment System	3	Management Information System	06		
4	Logistic & Supply Chain 06 Management in E- Commerce	4	Digital Marketing	06		

5	Business Models in E- Commerce & ICT	06	5	International Business, Law and Taxation	06
	Applications				
	Group E: Business Economics				
1	Economics of Growth and Development	06	1	Urban Economic	06
2	Applied Econometrics	06	2	Entrepreneurship and Family Business	06
3	Agriculture Economics	06	3	Indian Financial System	06
4	Monetary Economics	06	4	International Economic	06
5	Industrial Economics	06	5	Economics of Services	06
Note : Grou	Note : Group Selected in Semester III will continue in Semester IV				

<sup>\*</sup> subject to change as per university of Mumbai guidelines

### M. Sc. In Physics(Electronics Instrumentation-I)

**Eligibility Criteria:** Passed B. Sc. in Physics from University of Mumbai or any equivalent Degree from other university (subject to the fulfillment of eligibility criteria laid down by Mumbai University for other universities)

Intake Capacity: M. Sc. (Electronics Instrumentation I) (40 Seats)

**SEMESTER - I** 

Sr.	Paper Title	Course Code	Credits
No.			
1	Mathematical Physics	PSPH101	4
2	Classical Mechanics	PSPH102	4
3	Quantum Mechanics	PSPH 103	4
4	Solid state Physics	PSPH 104	4
5	Practical Lab Course	PSPHP101	4
6	Practical Lab Course	PSPHPAP102	4

**Practical:** Student should perform practicals based on above papers as prescribed by University of Mumbai.

**SEMESTER - II** 

Sr.	Paper Title	Course Code	Credits
No.			
1	Advanced Electronics	PSPH201	4
2	Electrodynamics	PSPH202	4
3	Quantum Mechanics-II	PSPH 203	4
4	Solid state Devices	PSPH 204	4
5	Practical Lab Course	PSPHP201	4
6	Practical Lab Course	PSPHPAP202	4

**Practical :** Student should perform practicals based on above papers as prescribed by University of Mumbai.

**SEMESTER - III** 

Sr.	Paper Title	Course Code	Credits
No.			
1	Statistical Mechanics	PSPH301	4
2	Nuclear Physics	PSPH302	4
3	Microcontroller and interfacing	PSPHET305	4
4	Embedded System and RTOS	PSPHET306	4
5	Project	PSPHP301	4
6	Practical Lab Course	PSPHPAP302	4

**Practical:** Students should perform practicals based on above papers and project as prescribed by University of Mumbai.

**SEMESTER - IV** 

Sr.	Paper	Course Code	Credits
No.	Title		
1	Experimental Physics	PSPH401	4
2	Atomic and Molecular Physics	PSPH402	4
3	Advanced and Microprocessor & ARM – 7	PSPHET405	4
4	VHDL and Communication Interface	PSPHET406	4
5	Project	PSPHP401	4
6	Practical Lab Course	PSPHPAP402	4

**Practical :** Students should perform practicals based on above papers and project as prescribed by University of Mumbai.

# M.Sc in Analytical Chemistry

**Eligibility Criteria**: Passed B.Sc. in Chemistry from University of Mumbai OR any equivalent Degree from other university (subject to the fulfillment of eligibility criteria laid down by Mumbai university for other universities.)

Intake Capacity: 1) Master of Science in Organic Chemistry (30 seats)

2) Master of Science in Analytical Chemistry (30 seats)

# M.Sc. - ORGANIC Chemistry I M.Sc. - ANALYTICAL Chemistry I

#### Semester I & Semester II

Paper No	Paper Title	Paper No	Paper Title
1	Physical Chemistry	3	Organic Chemistry
2	Inorganic Chemistry	4	Analytical Chemistry

#### F.ORGANIC CHEMISTRY II

#### Semester III & Semester IV

Paper Title	Paper Title	
Theoretical Organic Chemistry – I	Natural Product & Spectroscopy – I	
Synthetic Organic Chemistry – I	Medicinal & Bioorganic Chemistry	

### **Analytical Chemistry-II**

#### Semester III & Semester IV

Paper No.	Paper Title
1	Quality Analytical Chemistry
2	Advanced Instrumental Techniques
3	Environmental & Certain Industrially Important Material
4	Pharmaceutical, Biochemical & Organic Analysis

#### Semester - IV

Paper No.	Paper Title
1	Quality Analytical Chemistry
2	Advanced Instrumental Techniques
3	Selected topics in Analytical Chemistry
4	Research Methodology

## Analytical Chemistry-II ORGANIC CHEMISTRY-II

### Semester III & Semester IV

Paper No.	Paper Title
1	Theoretical Organic Chemistry I
2	Synthetic Organic Chemistry I
3	Natural Products and Spectroscopy
4	Medicinal Biogenesis and Green Chemistry

#### Semester - IV

Paper No.	Paper Title
1	Theoretical Organic Chemistry II
2	Syntnetic Organic Chemistry II
3	Natural Products and Heterocyclic Chemistry
4	Research Methodology

# M.Sc. (Computer Science)

#### Eligibility: -

- 1. All the admission will be on merit (i.e. percentage of aggregate marks secured for the qualifying examination).
- 2. The Bachelor's degree in the faculty of science / Technology of Mumbai university or equivalent degree of recognized Universities with Major subjects as Mathematics / Physics / Statistics / Life Science / Medicine / B. Tech. / B E. in CS or IT / BCA / BCS / B.Sc.(CS) / B. Sc(IT).
- 3. Reservation criteria should be followed as prescribed by Government at the time of admission.

Passing Statistics: - Theory Paper – Min 24 out of 60
Internal assessment – Min 16 out of 40

## M.Sc. (Computer Science) PART -I

Semester – I : Theory Courses

Course Code	Course Title	No. of Hours	Credits
PSCS101	Analysis of Algorithms and Researching Computing	60	04
PSCS102	Advanced Networking Concepts	60	04
PSCS103	Advanced Database Systems	60	04
PSCS104	Robotics and Artificial Intelligence	660	04
	Total Credits for Theory courses in Seme	ester-l	16

# Semester – II: Practical Laboratory courses

Course Code	Course Title	No. of Hours	Credits
PSCSP101	Analysis of Algorithms and Researching Computing	60+60=120	04
PSCSP102	Advanced Database Systems and Robotics & Artificial Intelligence	60+60=120	04
Total Credits for Practical Laboratory courses in Semester-I			08

### Semester – II: Theory Courses

Course Code	Course Title	No. of Hours	Credits
PSCS201	Advanced Operating Systems	60	04
PSCS202	Design and implementation of Modern Compilers	60	04
PSCS2031	Elective I – Track A: Cloud Computing (Concepts and Design of Web Services)	60	04
PSCS2032	Elective I – Track B: Cyber and Information Security (Network Security)		
PSCS2041	Elective – II – Track C: Business Intelligence and Big Data Analytics (Business Intelligence)	60	04
PSCS2042	Elective – II Track D: Machine Intelligence (Fundamentals of Machine Intelligence)		
	Total Credits for Theory courses in Seme	ster-II	16

Semester – II: Practical Laboratory Courses

Course Code	Course Title	No. of Hours	Credits
PSCSP201	Analysis of Algorithms and Researching Computing and Advanced networking Concepts	60+60=120	04
PSCSP202	Elective I and Elective II	60+60=120	04
Total Credits for Practical Laboratory courses in Semester-II		08	

M.Sc. (Computer Science) PART -II

Semester – III: Theory Courses

Course Code	Course Title	No. of Hours	Credits
PSCS301	Ubiquitous Computing	60	04
PSCS302	Social Network Analysis	60	04
PSCS3031	Elective I – Track A: Cloud Computing-II (Cloud Computing Technologies)	60	04
PSCS3032	Elective I – Track B: Cyber and Information Security-II (Cyber Forensics)		
PSCS3033	Elective II- Track C: Business Intelligence and Big Data Analytics – II (Mining Massive Data Sets)	60	04
PSCS3034	Elective II – Track D: Machine Learning-II (Advanced Machine Learning)		
	Total Credits for Theory courses in Seme	ster-III	16

Semester – III : Practical Laboratory Courses

Course Code	Course Title	No. of Hours	Credits
PSCSP5	Ubiquitous Computing and Social Network Analysis	60+60=120	04
PSCSP6	Elective I and Elective II	60+60=120	04
Total Credits for Practical Laboratory courses in Semester-III			08

#### **Semester – IV : Theory Courses**

Course Code	Course Title	No. of Hours	Credits
PSCS401	Simulation and Modeling	60	04
PSCS4021	Specialization – Track A: Cloud Computing-III (Building Clouds and Services)	60	04
PSCS4022	Specialization – Track B: Cyber and Information Security – II (Cryptography and Crypt Analysis		
PSCS4023	Specialization – Track C: Business Intelligence and big data Analytics-III (Intelligence Data Analysis)		
PSCS4024	Specialization – Track D: Machine Learning – III (Computational Intelligence)		
	Total Credits for Theory courses in Semes	l ster-IV	08

#### **Semester – IV: Practical Courses**

Course Code	Course Title	No. of Hours	Credits
PSCSP7	Simulation & Modeling and Specialization	60+60=120	04

## M. Sc. (Information Technology)

#### Eligibility: -

- 1. All the admission will be on merit (i.e. percentage of aggregate marks secured for the qualifying examination)
- 2. The Bachelor's degree in the Faculty if Science / Technology of Mumbai University or equivalent degree of recognized Universities with Major subjects as Mathematics / Physics / Statistics / life science / Medicine / B. Tech. / B.E. in CS or IT / BCA / BCS / B. Sc.(CS) / B. Sc.(IT).
- 3. Reservation criteria should be followed as prescribed by Government at the time of admission.
- 4. Students securing minimum 45 percent marks at the three year B.Sc. degree in Information Technology of Mumbai University or any recognized University are eligible.

5.

# 6. **Passing Standards : -** Theory paper – Min 24 out of 60 Internal assessment – Min 16 out of 40

# M. Sc. (Information Technology) PART -I

Semester – I		
Course Code	Course Title	Credits
PSIT101	Research in Computing	4
PSIT102	Data Science	4
PSIT103	Cloud Computing	4
PSIT104	Soft Computing Techniques	4
PSIT1P1	Research in Computing Practical	2
PSIT1P2	Data Science Practical	2
PSIT1P3	Cloud Computing Practical	2
PSIT1P4	Soft Computing Techniques Practical	2
Total Credits		24

Semester – II		
Course Code	Course Title	Credits
PSIT201	Big Data Analytics	4
PSIT202	Modern Networking	4
PSIT203	Micro services Architecture	4
PSIT204	Image Processing	4
PSIT2P1	Big Data Analytics Practical	2
PSIT2P2	Modern Networking Practical	2
PSIT2P3	Micro services Architecture Practical	2
PSIT2P4	Image Processing Practical	2
Total Credits		24

### F.Y.B.Sc.

### M.Sc. (I.T.) PART - II

Artificial Intelligence Track
Image Processing Track
Cloud Computing Track
Security Track

SEMESTER - I	III				
	Course Title				
Course Code	Theory	Credits	Course Code	Practical	Credits
PSIT301	Development	4	PSIT3P1	Project Documentation and Viva	2
Elective 1: Se course	elect Any one from the cou	rses listed b	elow along w	ith corresponding practical	
PSIT302a	Applied Artificial Intelligence		PSIT3P2a	Applied Artificial Intelligence Practical	
PSIT302b	Computer Vision		PSIT3P2b	Computer Vision Practical	
PSIT302c	Cloud Application Development	4	PSIT3P2c	Cloud Application Development Practical	ว
PSIT302d	Security Breaches and Countermeasures	4	PSIT3P2d	Security Breaches and Countermeasures Practical	2
Elective 2: Se course	elect Any one from the cou	rses listed b	elow along w	ith corresponding practical	
PSIT303a	Machine Learning		PSIT3P3a	Machine Learning Practical	
PSIT303b	Biomedical Image Processing		PSIT3P3b	Biomedical Image Processing Practical	
PSIT303c	Cloud Management	4	PSIT3P3c	Cloud Management Practical	2
PSIT303d	Malware Analysis		PSIT3P3d	Malware Analysis Practical	
Elective 3: Se course	elect Any one from the cou	rses listed b	elow along w	ith corresponding practical	
PSIT304a	Robotic Process Automation		PSIT3P4a	Robotic Process Automation Practical	
PSIT304b	Virtual Reality and Augmented Reality		PSIT3P4b	Virtual Reality and Augmented Reality Practical	
PSIT304c	Data Center Technologies	4	PSIT3P4c	Data Center Technologies Practical	2
PSIT304d	Offensive Security		PSIT3P4d	Offensive Security Practical	
	Total Theory Credits	16		Total Practical Credits	8
Total Credits	for Semester III: 24				

	SEMES	TER - IV					
Course Title							
Course Code	Theory	Credits	Course Code	Practical	Credits		
PSIT401	Blockchain	4	PSIT4P1		2		
Elective 1: S	elect Any one from the co	urses listed	below along v	vith corresponding practica	I		
course				<u> </u>			
PSIT402a	Natural Language Processing		PSIT4P2a	Natural Language Processing Practical			
PSIT402b	Digital Image Forensics		PSIT4P2b	Digital Image Forensics Practical			
PSIT402c	Advanced IoT	4	PSIT4P2c	Advanced IoT Practical	2		
PSIT402d	Cyber Forensics		PSIT4P2d	Cyber Forensics Practical			
Elective 2: So	elect Any one from the co	urses listed	below along v	vith corresponding practica	İ		
PSIT403a	Deep Learning		PSIT4P3a	Deep Learning Practical			
PSIT403b	Remote Sensing		PSIT4P3b	Remote Sensing Practical			
PSIT403c	Server Virtualization on VMWare Platform	4	PSIT4P3c	Server Virtualization on VMWare Platform Practical	2		
PSIT403d	Security Operations Center		PSIT4P3d	Security Operations Center Practical			
Elective 3: S	elect Any one from the co	urses listed	below. Projec	t Implementation and Viva	is		
compulsory		1	1	Г	1		
PSIT404a	Human Computer Interaction						
PSIT404b	Advanced Applications of Image Processing			Project Implementation and			
PSIT404c	Storage as a Service	4	PSIT4P4	Viva	2		
PSIT404d	Information Security Auditing						
	Total Theory Credits	16		Total Practical Credits	8		
	Total C	redits for Se	mester IV: 24				

If a student selects all 6 papers of Artificial Intelligence Track, he should be awarded the degree M.Sc. (Information Technology), Artificial Intelligence Specialisation.

If a student selects all 6 papers of Image Processing Track, he should be awarded the degree M.Sc. (Information Technology), Image Processing Specialisation.

If a student selects all 6 papers of Cloud Computing Track, he should be awarded the degree M.Sc. (Information Technology), Cloud Computing Specialisation

If a student selects all 6 papers of Artificial Security Track, he should be awarded the degree M.Sc. (Information Technology), Security Specialisation

All other students will be awarded M.Sc. (Information Technology) degree.

#### Computer Lab: -

The college has a fully equipped computer lab consisting of 105 computers with and 100 mbps LAN & 10 Mbps lease line connections (Ratio 1:1) integrated with 8 Switches and All in one printer, DeskJet and LaserJet Printers. The students are permitted to extensively use the computer facility with one student per computer.

Teaching Equipment: - The Department uses Net meeting, Video conferencing, Multimedia Facility and a Seminar Hall along with all the facilities required for the seminar.

Achievements of students of B. Sc. (IT): - Our student Miss Indu Purushottam was Top Ranker in the Merit List of T. Y. B.Sc. (IT) at University of Mumbai in June 2004. Miss Anima Sinha stood 2<sup>nd</sup> in Mumbai University in year 2006-07.

#### M. Sc. Environmental Sciences

#### Eligibility: -

- B.Sc. with Chemistry / Botany / Zoology / Biochemistry / Microbiology / Life Sciences / Biotechnology(Chemistry upto S.Y. B.Sc. level)
- 2. Admission will be granted strictly on the basis of Entrance test conducted by college as per University's guidelines.

Intake capacity: - 20 Seats.

#### Semester - I

Sr .No.	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Ecology and Ecosystem	PSEVS101	4	PSEVSP101	2
2.	Biodiversity	PSEVS102	4	PSEVSP102	2
3.	Environmental and Natural resources	PSEVS103	4	PSEVSP103	2
4.	Environmental Pollution	PSEVS104	4	PSEVSP104	2

#### <u>Semester – II</u>

Sr .No.	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Environmental Monitoring and Assessment	PSEVS201	4	PSEVSP201	2
2.	Pollution control technology	PSEVS202	4	PSEVSP202	2
3.	Green Technology	PSEVS203	4	PSEVSP203	2
4.	Environment Acts Rules and Regulations	PSEVS204	4	PSEVSP204	2

#### Semester - III

Sr .No.	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Advanced Pollution control Technology	PSEVS301	4	PSEVSP301	2
2.	Instrumentation and Biostatistics	PSEVS302	4	PSEVSP302	2
3.	Environmental Toxicology	PSEVS303	4	PSEVSP303	2
4.	Industrial Hygiene and Chemical Safety	PSEVS304	4	PSEVSP304	2

### Semester – IV

Sr	Paper Title	Co. code	Credit	Co code	Credit
.No.		(Theory)		(Practical)	
1.	Eco Technology	PSEVS401	4	PSEVSP401	2
2.	Environmental Biotechnology & Nanotechnology	PSEVS402	4	PSEVSP402	2
3.	Sustainable management	PSEVS403	4	PSEVSP403	2
4.	Environmental Management	PSEVS401	4	PSEVSP404	2

# M.Sc. Bio Analytical Sciences

# Eligibility Criteria: -

- B.Sc. with Chemistry / Botany / Zoology / Biochemistry / Microbiology / Life Sciences / Biotechnology (Chemistry upto S.Y .B.Sc. level)
- 2. Admission will be granted strictly based on Entrance test conducted by college as per University's guidelines.

Intake Capacity: - 20 Seats

# Semester – I

	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Different Medicinal Systems, Pharmacognosy and Extraction Techniques	PSBN101	4	PSBNP101	2
2.	GLP, Drug Act and Quality Management	PSBNP102	4	PSBNP102	2
3.	Chromatography and Spectroscopy – I	PSBNP103	4	PSBNP103	2
4.	Proteomics, Bioinformatics & Pharmacokinetics – I	PSBNP104	4	PSBNP104	2

# Semester - II

Sr .No.	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Indian Pharmaceutical Industry, Phytochemistry & Extraction Techniques	PSBNP201	4	PSBNP201	2
2.	IPR & Patenting, Stability Studies & Packaging	PSBNP202	4	PSBNP202	2
3.	Chromatography and Spectroscopy – II	PSBNP203	4	PSBNP203	2
4.	New Drug Development, Immunoassays, Pharmacokinetics, Laboratory Safety Measures		4	PSBNP204	2

# <u>Semester – III</u>

Sr .No.	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Basic Microbiology, Genomics, CE & Toxicology-I	PSBNP301	4	PSBNP301	2
2.	MS applications, Metabolic studies, Thermal Analysis and Tracer Techniques – I	PSBNP302	4	PSBNP302	2
3.	Standardization of ASU drugs, Statistics & GMP - I	PSBNP303	4	PSBNP303	2
4.	BA/BE Studies, GCP and Method Validation –	PSBNP304	4	PSBNP404	2

# Semester - IV

Sr .No.	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Basic Microbiology, Genomics, CE and Toxicology – II	PSBNP401	4	PSBNP401	2
2.	MS applications, Metabolite studies, Thermal Analysis and Tracer Techniques – II	PSBNP402	4	PSBNP402	2
3.	Standardization of ASU drugs, Statistics and GMP – II	PSBNP403	4	PSBNP403	2
4.	BA/BE studies, GCP and Method Validation – II	PSBNP404	4	PSBNP404	2

# M.Sc. Biotechnology

# Eligibility Criteria: -

B.Sc.in Biotechnology from University of Mumbai or any equivalent Degree from other university. Intake Capacity: - 40 Seats

# Semester – I

Sr .No	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Biochemistry	PSBT101	4	PSBTP101	2
2.	Immunology	PSBT102	4	PSBTP102	2
3.	Cell Biology	PSBT103	4	PSBTP103	2
T .	Emerging technologies and molecular diagnostics	PSBT104	4	PSBTP104	2

# Semester - II

Sr .No	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Bioinformatics and Biostatistics	PSBT201	4	PSBTP201	2
2.	Plant and Animal Biotechnology	PSBT202	4	PSBTP202	2
3.	Bioprocess Engineering and technology	PSBT203	4	PSBTP203	2
4.	Intellectual property rights and Bioethics	PSBT204	4	PSBTP204	2

# <u>Semester – III</u>

Sr .No.	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Applied virology and microbiology	PSBT301	4	PSBTP301	2
2.	Environmental Biotechnology	PSBT302	4	PSBTP302	2
3.	Biologics and Regulatory Affairs	PSBT303	4	PSBTP303	2
4.	Molecular Enzymology and Enzyme Technology	PSBT304	4	PSBTP304	2

# Semester – IV

Sr .No	Paper Title	Co. code (Theory)	Credit	Co code (Practical)	Credit
1.	Nanobiotechnology	PSBT401	4	PSBTP401	2
2.	OMICS & Systems Biology	PSBT402	4	PSBTP2402	2
3.	Drug Discovery & Clinical Study	PSBT403	4	PSBTP403	2
4.	Scientific Writing & Food Biotechnology	PSBT404	4	PSBTP404	2

# Eligibility:-

- 1. B. Sc. in biotechnology from any recognized University.
- 2. The admission will be granted on the basis of the marks obtained in the B.Sc. and as per the guidelines of the University of Mumbai.

# **HOSPITALITY STUDIES**

# **Bachelor of Hospitality Studies**

**Eligibility:** -Minimum 45% marks for GENERAL Category & Minimum 40% marks for RESERVED category in H.S.C. (Arts / Commerce / Science) or its equivalent in aggregate. B. Sc. (H.S.) is a three year full time Degree Affiliated to University of Mumbai. The subjects covered are as given below:.

# F.Y.B.Sc. (H.S.)

# Semester I

Course Code	Subject
USHO101	Food Production & Patisserie I
USHO102	Food and Beverage Service I
USHO103	Front Office I
USHO104	Housekeeping I
USHO105	Rooms Division Management (Practical) – I
USHO106	Communication Skills I (English & French)
USHO107	Information Technology
USHO108	Food Safety and Nutrition

# Semester II

Course Code	Subject
USHO201	Food Production & Patisserie II
USHO202	Food and Beverage Service II
USHO203	Front Office II
USHO204	Housekeeping II
USHO205	Rooms Division Management (Practical) – II
USHO206	Communication Skills II (English & French)
USHO207	Principles of Hotel Accountancy
USHO208	Principles of Management

S.Y.B.Sc. (H.S.)

# Semester III & Semester IV B. Sc. Hospitality Studies

(Students will be sent for Industrial Training either during the IIIrd or IVth semester as per the convenience of Industry / Institute. Classes will be conducted for the batch of students not undergoing Industrial Training)

Course Code	Subject
USHO301	Food Production & Patisserie III
USHO302	Food and Beverage Service III
USHO303	Front Office III
USHO304	Housekeeping III
USHO305	Rooms Division Management (Practical) –III
USHO306	Hotel Accountancy and Cost Control
USHO307	Hospitality Law & Human Resource Management
USHO308	Management Information Systems in Hospitality Industry

# T.Y.B.Sc. (H.S.)

# Semester V

Course Code	Subject
USHO501	Food Production & Patisserie
USHO502	Food and Beverage Operations Management
USHO503	Front Office
USHO504	Housekeeping
USHO505	Rooms Division Management (Practical)
USHO506	Corporate English
USHO507	Environmental and Sustainable Tourism

# Semester VI

Course Code	Subject
USHO601	Organizational Behaviour
USHO602	Strategic Management
USHO603	Event Planning, Marketing & Management
USHO604 Co	ore Elective (Any Two)
USHO604A	Advanced Food Production
USHO604B	Advanced Food & Beverage Operations Management
USHO604C	Advanced Housekeeping
USHO604D	Advanced Front Office
USHO604e	Advance Bakery & Confectionary
USHO605 AI	lied Elective (Any One)
USHO605A	Revenue Management
USHO605B	Foreign Language (French)
USHO605C	Services Marketing
USHO605D	Financial Marketing
USHO605E	Strategic Human Resource Management

Continued to next page

Hotel and Tourism Industries are growing at a rapid pace not only in India, but all over the World. B.Sc. (H.S.) is ideally suitable to meet the needs of students who wish to join the Hospitality Industry and hence it is one of the leading career oriented Degrees presently available. Viva college is one of the leading college s of Mumbai to start this course at its Campus at Virar

**Scope : - B.Sc. Hospitality Studies & B.A. Culinary Arts**, Students has wide career opportunities in following areas : -

- 1. Hotels & Resorts
- 2. Industrial, Institutional & Outdoor Catering
- 3. Airlines & Cruise Ships
- 4. Health Care Centers & Clubs etc.
- 5. 100% Placement Assistance.

Industrial Training & Placement: - Students have been placed at Four Seasons, St. Regis, Ramee Hotels, JW Marriott, I.T.C. Maratha, Sofitel, Oberoi Hotels, Taj Lands end, Hilton, The Lalit, Sun-n-Sand, Sea Princess, Hometel, Sarovar, Courtyard Marriot, Hyatt, Holiday INN, Novotel Ibis and many more, Royal Caribbean Crystal,

# **Bachelor of Arts (Culinary Arts)**

Eligibility: - A candidate for being eligible for admission to the Bachelor of Arts (Culinary Arts) shall have passed standard XII / 10 + 2 examination (any stream) from any recognized education board or its equivalent from India or abroad.

# F.Y.B.A.(C.A)

# <u>Semester – I</u>

Course Code	Subject
	Core Course
USCA101	Principles of Food Production-I
USCA102	Essential Culinary Arts –Indian- I (Practical)
USCA103	Essential Culinary Arts -International (Practical)
USCA 104	Essential Bakery & Confectionery (Practical)
USCA 105	Fundamentals of Food & Beverage Service
USCA 106	Restaurant & Food Service Operations (Practical)
USCA 107	Food Safety& Hygiene
USCA 108	Introduction to the Hospitality Industry
USCA 109	Product Knowledge
	Compulsory Course
USCA 110	Communication Skills – English & French

# <u>Semester – II</u>

Course Code	Subject
	Core Course
USCA201	Principles of Food Production
USCA202	Essential Culinary Arts –Indian –II (Practical)
USCA203	Essential Culinary Arts -International (Practical)
USCA204	Essential Bakery & Confectionery (Practical)
USCA205	Food & Beverage Studies
USCA206	Food & Beverage Guest Service (Practical)
USCA207	Culinary Math
USCA208	Business Communications
USCA209	Fundamentals of Information Technology (Practical)
	Compulsory Course
USCA 210	Environmental Science

# S. Y. B.A. (C.A.)

# Semester - III

Course Code	Subject
	Core Course
USCA301	Indian and International Ethnic Cuisines
USCA302	Beverage Studies
USCA303	Indian Ethnic Culinary Arts (Quantity) (Practical)
USCA304	Intermediate Culinary Arts - International (Practical)
USCA305	Intermediate Bakery & Confectionery (Practical)
	Skill Enhancement Course
USCA306	Nutrition & Food Science
USCA307	Food Cost Controls
USCA308	Principles of Management
USCA309	Applied Information Technology (Practical)
USCA310	The Practice of Business Communication

# Semester – IV

Course Code	Subject
	Core Course
USCA401	Regional Indian Cuisine and Larder
USCA402	Function Catering Operations (Practical)
USCA403	Intermediate Culinary Arts-Indian (Practical)
USCA404	Larder and Short Order Cookery (Practical)
USCA405	Intermediate Bakery & Confectionery (Practical)
	Skill Enhancement Course
USCA406	Menu Development and Function Catering
USCA407	Gastronomy
USCA408	Hospitality Information System (Practical)
USCA409	Hospitality Financial Accounting
USCA410	Human Assets Management

# T. Y. B.A. (C.A.)

# Semester – V

Course Code	Cubiant
Course Code	Subject
	Skill Enhancement Course
USCA501	Event Planning & Management (Practical)
USCA502	Advanced Culinary Arts- Indian (Practical)
USCA503	Advanced Food Production
USCA504	Advanced Pastry Arts (Practical)
USCA505	Food Legislation
USCA506	Food Styling & Presentation (Practical)
USCA507	Personality Development and Executive Soft Skills (Practical)
	Discipline Specific Elective
USCA508	Indian Culture & Traditions
USCA509	Strategic Management
USCA510	Hotel Engineering and Maintenance Management
USCA511	Security and safety in catering establishment
	Generic Elective
USCA512	Organizational Development & Behavior
USCA513	Hospitality Services Marketing

# Semester - VI

Course Code	Subject
	Skill Enhancement Course
USCA601	Advanced Culinary Arts - Indian (Practical)
USCA602	Advanced Culinary Arts - International (Practical)
USCA603	Chocolatier (Practical)
USCA604	Project Research (Culinary Based) (Practical)
USCA605	Experimental and Innovative Cuisine (Practical)
USCA606	Advanced Culinary Arts
USCA607	Food Tourism
	Discipline Specific Elective
USCA608	Indian snacks
USCA609	Indian confectionary
USCA610	Kitchen Facilities Planning and Environmental Consciousness
	Entrepreneurship and Restaurant Startup \
	Generic Elective
	Entrepreneurship and Restaurant Startup
	Introduction to Maritime Hospitality

# Master of Science - Hotel & Hospitality Administration

# **Eligibility:**

A candidate being eligible for admission to the Master's Degree in Hotel & Hospitality Administration should have passed:

a) Bachelor's Degree in Hospitality Studies / Hotel Management / Hotel And Tourism Management / Hospitality & Tourism Management / B.B.A.( Hospitality Studies) or any relevant program from any approved University in India or abroad.

# **Duration:**

The program shall be a full time program. The duration of the program shall be Two Years.

# FIRST SEMESTER: -

Course code	Name of The Subject
PSHA 101	Perspective Management
PSHA 102	Management Accounting
PSHA 103	Organization Behavior

PSHA 104	Managerial Economics
PSHA 105	Event Management
PSHA 106	Tourism Operations Management

# **SECOND SEMESTER: -**

Course code	Name of The Subject
PSHA 201	Cruise Line Hospitality Management
PSHA 202	Marketing Management
PSHA 203	Statistics for Management
PSHA 204	Legal Aspects of Hospitality Business
PSHA 205	Financial Management in Hospitality Industry
PSHA 206	Human Resource Management in Hospitality Industry

# THIRD SEMESTER: -

Course code	Name Of The Subject
PSHA 301	Hospitality Investment & Perspective
PSHA 302	Resorts & Theme Parks management
PSHA 303	Convention & Conference Management
PSHA 304	Customer Care Management
PSHA 305	Service Marketing
PSHA 306	Environment Management in Hospitality

# **FOURTH SEMESTER: -**

Course code	Name Of The Subject
PSHA 401	Project Management in Hospitality Business
PSHA 402	Food Logistics & Supply Chain Management
PSHA 403	Casino & Club Level Management
PSHA 404	Business Ethics & Corporate Governance
PSHA 405	Advanced Business Communication
PSHA 406	Research Project

# **SCIENCE LABORATORIES**

# **Chemistry**

Chemistry lab is divided into four sections. The first section of the laboratory has a capacity to accommodate 100 students & the second section has a capacity to accommodate 48 students. The third section is laboratory of Physical & Analytical chemistry and has a capacity to accommodate 40 students. The total capacity of Chemistry lab is 188 students and also there is separate post graduate laboratory for 48 students.

The laboratory is sufficiently spacious to enable the students to perform practical without overcrowding. Each student is provided with a separate locker to keep the apparatus & other belongings. The laboratory is well equipped with all necessary chemicals & instruments.

Objectives and Scope : - The objective of the department is to impart knowledge to students to excel in their academic and to meet the challenges in real life.

There are maximum opportunities for students after completion of their graduation / post graduation in diverse fields and industries such as Food Industry, Paint Industry, Polymer Industry, Pharmaceutical Industry, Cosmetics Industry etc.

# **Physics**

Department of Physics have five laboratories.

- 2) Main Physics Lab (Capacity 100 students)
- Dark room (Capacity 20 students)
- 4) Electronic lab I (capacity 40 students)
- 5) Electronics lab II (capacity 25 students)
- 6) Computer lab (capacity 20 students)

Objectives and Scope: The objective of Physics graduate degree is to impart in depth theoretical as well as practical knowledge of science to the students in the area of Physics. Graduates of Physics have better opportunities in various fields like Defense, Research& development, Radiology, Information Technology etc.

# **Biological Sciences**

Department of Biological Sciences includes 5 laboratories – Biology (I lab, Biotechnology (2 lab) & Botany and Zoology (1 lab)

- A] Biology Lab: The Biology Lab ( for junior college) has a capacity to accommodate 100 students. The Lab has excellent natural light & ventilation and is ideally suitable for performing Biological microscopic work.
- B] Botany and Zoology Lab: The Botany & Zoology Lab ( for Degree college) has a capacity to accommodate 30 students.
- C] Biotechnology Lab: The Department of Biotechnology has three well equipped laboratories.

Lab I: - Plant Tissue Culture (PTC)

- Lab (Air-conditioned) Capacity - 20 students.

Lab II: - General Lab, Capacity – 50 students

- Centralized Instrumentation Laboratory.
- Agriculture Laboratory for sail & water analysis.
- Advanced Research Centre for R & D.

# **COLLEGE GYMHANA**

The College Gymkhana provides facilities to students to participate in various sports and games. The College regularly sends out students to represent the college in various tournaments, both in individual and team events. Students can participate in riffle shooting, rappling, wall, climbing etc.

# STUDENT'S COUNCIL

The Students Council is managed by its Chairperson & various Secretaries. It encourages students to take part in Dramatics, Dance & Music, Debating, Audition & Elocution, Essay Writing, Poetry Writing, Singing Contests, arranging College Exhibition and other competitions.

The G. S...(General Secretary) is elected by Class Representatives as per notification of the University. The

G.S. co-ordinates with the Secretaries of various societies / Associations to ensure a smooth functioning of the Student's Council.

The Student's Council organizes celebration of various "Days" such as Rose Day, Black Day & White Day, Saree & Tie Day, and Friendship Day & Traditional Day with the prior permission of the Principal.

# **VIVA COLLEGE CULTURAL DEPARTMENT**

The college participates in Mumbai University's: Youth Festival" in following events: -

- 1) Indian Classic Vocal Solo
- 2) Indian Light Vocal Solo
- 3) Western Vocal Solo
- 4) Elocution (Marathi & Hindi & English)
- 5) Storytelling (Marathi & Hindi & English)
- 6) On the Spot Painting
- 7) Poster Making
- 8) Cartooning
- 9) One Act Play (Marathi & Hindi)
- 10) Skit (Marathi & Hindi)
- 11) Mono Acting (Marathi & Hindi)
- 12) Mime
- 13) Mimicry
- 14) These competitions are done at Zonal & National Level. Students can also take part in that....
- 15) We also participate in intercollegiate one act play competition called "I.N.T. (Indian National Theatre). This is one of the biggest competitions at intercollegiate level.

# **VIVA COLLEGE LIBRARY**

A well-equipped and well-managed library is the foundation of the modern education system. VIVA Library was established in the year 2000 with the following objectives.

# **Objectives:**

- To acquire, store and disseminate the information for Staff and Students of the College.
- To assist and facilitate study and learning activities of the students.
- To facilitate teaching and research needs of the faculty members.

# **Library Working Hours**

Monday to Saturday	09.00 a.m. to 05.00 p.m.	
Reading Room	9.00 a.m. to 5.00 p.m. (During Exam) 7.00 a.m. to 5.00 p.m. 7.00 a.m. to 7.00 p.m.	
Closed on Sundays and Public Holidays		

**Library Collection** 

Books : 53742

Periodicals : 57 (Journals: 38 & Magazines: 19)

Newspapers : 28 Maps : 51 AV-Materials : 254

E-Resources : 6000+ E-Journals & 31,35,000 + E-Books

(N-LIST Consortia)

# **Library Services**

# 1. Circulation of Books:

In this service, Library Members (Students, Faculty, Staff, etc.) are allowed to issue books for their home Reading/ Reference. Even the issued books can be renewed for respective users. Library members are provided with the following loan privileges

Category	Privileges	Duration
Degree College Faculty	10 Books	1 Month
Non-Teaching Staff	5 Books	1 Month
Degree College Students	01+1	7 Days
Post-Graduation Students	02+1	7 Days
Junior College Faculty	5	1 Month

### 2. Library Scholar Card:

"The Scholar Card" is another value-added service provided by the library wherein an additional borrower's card is issued to Top Three Students who secured  $1^{st}$ ,  $2^{nd}$  and  $3^{rd}$  place in Each Semester.

### 3. Reference Service:

The Library has a good number of reference books like Dictionaries, Encyclopedias, Yearbooks, Handbooks, Books for Competitive Examinations and many more. These reference books are consulted or referred everyday by students and staff members.

### 4. Must-Read Books Desk:

'Must Read Books' Is An User Awareness Service Provided by Library. In this Service, a Small Collection of Books on Great Personalities, Competitive Exam Books, Great Novels and Books on Self Development etc. will be displayed for the period of Seven Days. The interested students can read those books in the library or else they can issue the books for home reading after one week.

### 5. Book Bank Service:

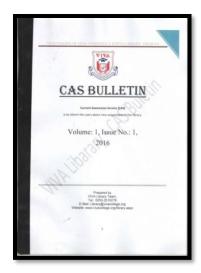
A Book Bank Service is available for underprivileged students. A separate collection of textbooks based on the syllabus is being developed and issued to these students for a semester or a year.

### 6. VIVA Book Bank:

The Library has also started a "VIVA Book Bank" facility for Students from Economically Backward Families. In this service, a set of Textbooks related to their syllabus will be distributed to these students for a semester or a year.

### 7. Current Awareness Service:

To create awareness and update the library activities among the readers, the library provides a list of newly acquired books, a list of periodicals subscribed by the library, current contents of periodicals, newspaper clippings and photocopies of journal articles. A separate place is designated to display the new arrivals.



The library team has introduced and released a CAS Bulletin which brings out and reports about new acquisitions and various activities organized by the Library.

### 8. Inter-Library Loan & Library Institutional Membership:

Resource sharing or Inter-Library Loan service is provided for students and staff members. Books from the libraries of sister institutions can access on a request basis. VIVA College Library has an Institutional Membership of American Resource Centre, Mumbai.

# **Library Facilities**

# 1. Reading Room:

A Reading Room facility with a calm and peaceful environment has been provided to enhance the learning ability of the students. The Library Reading Room can accommodate more than 500 students and is available from 07.00 am to 05.00 pm and the timing will be extended from 07.00 am to 07.00 pm during the examination period.

# 2. Internet Facility:

The library has 20 dedicated computers with a 10 Mbps speed internet facility for students and staff members. These computers are used for accessing the Internet, preparation for project works and for study and research purposes.

# 3. INFLIBNET N-List Consortium

The library is subscribing **INFLIBNET N-List Consortium**, under this scheme students and Staff members can access around **6000+ E-journals and 3135000+ E-books**.



# 4. <u>Departmental Libraries:</u>

To supplement students' learning and to have an easy and quick reference for readers, departmental libraries have been established. The books which are in frequent demand multiple copies are transferred to the department. A faculty in charge and some students are trained to handle the departmental library.

### 5. Library OPAC:

The Library is computerized with the help of LMS (Learning Management System) Software. The books and resources are catalogued and they can be searched through OPAC (Online Public Access Catalogue). OPAC is user friendly and students can search the collection by author-wise, title-wise, subject-wise or call number-wise. It is also available on the student's portal.

### 6. Photocopying and Printing Service:

Printouts and document scanning facilities are available on request for staff members and students. A photocopy facility at reasonable rates can be availed in the library.

# 7. Access to AV-Materials:

The Library has a good number of Educational CDs and DVDs on time management, Computers, Hotel management, Classical Movies and other personality development aspects.

### 8. Softcopies of Syllabus and Question Papers:

Syllabus and Question Papers are digitized and stored in the computer for student's reference. The links are provided on the Library Website (http://www.vivacollege.org/library.aspx) and other e-resources for remote access.

# 9. Institutional Repository:

An effort is made to digitize and preserve the intellectual outcome of VIVA College Staff members who have published research articles in various Journals. These Research articles are converted into PDF form and preserved in the Institutional Repository. This Institutional Repository will help the faculty members, research scholars and scientists from VIVA College to contribute their published Research Articles and at the same time, they share their expertise and collaborate for further research.

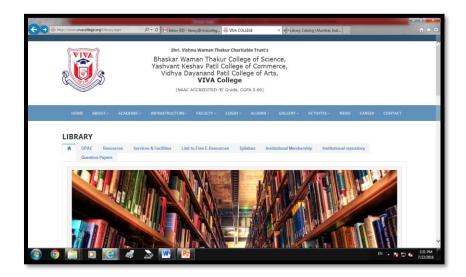
### 10. Earn and Learn Scheme for Students:

To provide financial assistance to economically backward students, the "Earn and Learn Scheme has been started by VIVA College in which some students are selected to work in the library. These students will be

assigned to perform some of the routine work in the library for a couple of hours and at the same time, they will be introduced to the various functions of the library.

# 11. VIVA College Library Website:

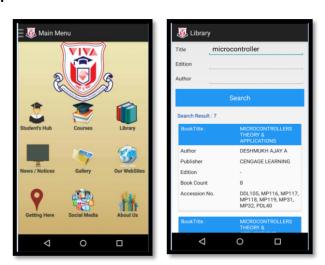
Today's library websites are greatly helping the readers to search, browse and access the desired information. VIVA College Library website has been developed with an objective of giving users access without any geographical boundaries and without any time restrictions. It provides information about Library, its collection, services and facilities, etc. There are abundant free and open accesses to Electronic Resources available on the Internet. Such E-Resources are identified and links are provided in the VIVA College Library Website to help the users to access these resources at one platform.



# 12. Mobile Application:

Mobile Technology and Applications have a tremendous influence on users for their mobility and easy accessibility. VIVA College has developed a Mobile App for students to access and browse the library collection by using this application.

# VIVA Library on Android App.



Link: https://play.google.com/store/apps/details?id=vss.myandroid.dhruvil.vivacollege

For more details contact Librarian

Or mail to

Library@vivacollege.org

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# महाराष्ट्र राज्य उच्च व तंत्र शिक्षण विभाग आणि महाराष्ट्र माहिती तंत्रज्ञान सहाय्यता केंद्र यांचा संयुक्त विद्यमाने



महाविद्यालय कोड





५० अडआन

कोसंस

मोफत

महाविद्यालयाचे	नाव	:
प्राचार्यांचे	नाव	:

महाविद्यालयीन समन्वयकाचे नाव:

# करिअर कट्टा अंतर्गत रामाविष्ट उपक्रम

१००० दिवस सातत्यां वी सातत्यां वी

- आव.ए.एस. आपल्या घेटीला
- त्रज्य पातळीवरील स्पर्धा परीक्षा/
   महाराष्ट्र लोकसेवा आयोग
- **‡ पोलीस भरती**
- \* बैंकिंग सेवा
- \* स्टाफ सिलेक्शन कमिशन
- \* केंद्रीय पातळीवरील स्पर्धा परीक्षा (UPSC)
- उद्योजक आपल्या भेटीला
- # उद्योजकीय व्यक्तिमत्व विकास
- स्ववस्थापकीय कौशल्य व प्रत्यक्ष
   उद्योजकांचे मार्गदर्शन
- क्ष वित्त त्यवस्थापन
- \* निर्णय क्षमता \* जोखीम व्यवस्थापन
- मनुष्यबळ व साधनसामुग्री व्यवस्थापन
- \* आधुनिक तंत्रज्ञान

- भारतीय संविधानाचे पारायण
- पर्यावरण शास अभ्यासक्रम
- सेंटर ऑफ एक्सलन्स
- स्पर्धा परीक्षा पुर्व तवारी
   व अञ्चासिका
- उद्योजकता विकास केंद्र
- मॉडेल स्किल डेव्हलपमेंट मेंटर

हेल्पलाईन नं. : 750 765 2555

◀ नाव नोंदणी व अधिक माहितीसाठी आपले नाव या नंबरवर व्हॉटस्ॲप करा.

महाविद्यालयीन समन्वयक :

# कार्यकृती आराखडा

महाविद्यालयाचे ऑन बोर्डिंग करून घेणे

महाविद्यालयामध्ये करिअर कट्टा फलकाचे अनावरण करून घेणे.

महाविद्यालयाच्या माहिती पुस्तकांमध्ये करिअर कट्या विषयी माहितीचा समावेश करून, विद्यार्थ्याच्या प्रवेशाच्या वेळीच करिअर कट्टयाचे नोंदणी शुल्क भरून घेण्याची व्यवस्था करणे.

करिअर कट्याच्या यादीमधील ॲड ऑन कोर्स महाविद्यालयातील विद्यार्थ्यांसाठी निवडून त्याची यादी घोषित करणे.

पहिल्या वर्षाच्या इंडक्शन प्रोग्रामच्या वेळी विद्यार्थ्यांच्या मोबाईल मध्ये करिअर कट्टा ॲप डाऊनलोड करावयास सांगणे व करिअर कट्याविषयी संपूर्ण माहिती विद्यार्थ्यांना देणे.

नवीन शैक्षणिक वर्षाच्या पहिल्या सत्रात, विद्यार्थ्यांसाठी दिल्या जाणाऱ्या ३० तासांच्या करिअरच्यासंधी या कार्सेसची माहिती विद्यार्थ्यांना देवून सर्व विद्यार्थी यामध्ये सहभागी होतील यासाठी प्रयत्न करणे.

महाविद्यालयीन समन्वयकांच्या नियमित बैठकीला उपस्थित राहणे.







महाराष्ट्र राज्य उच्च व तंत्र शिक्षण विभाग आणि महाराष्ट्र माहिती तंत्रज्ञान सहाय्यता केंद्र यांच्या संयुक्त विद्यमाने



युवकांच्या सर्वांगीण विकासासाठी

# करिअरच्या संधींचा ऑनलाईन महामेळावा

उच्च शिक्षणात पाऊल ठेवताना हवी महत्त्वाची जाणीव-जागृती..!

30 तासांचा ऑनलाईन प्रशिक्षण कोर्स 10 जुलै ते 10 ऑगस्ट दररोज सायं. ६.०० वा. पूर्णपणे मोफत!

आजच सबस्क्राइब करा..





https://youtube.com/@uvajagar

# पदवीसाठी प्रवेश घेणाऱ्या आणि घेऊ इच्छिणाऱ्या विद्यार्थी आणि पालकांसाठी...

- 1. राज्यातील ५००० पेक्षा जास्त महाविद्यालयातील लाखों विद्यार्थ्यांसाठी करिअर मार्गदर्शनाचा महामेळावा 2. केंद्रीय व राज्य पातळीवरील विविध स्पर्धा परीक्षांची सखोल माहिती
- स्पर्धा परीक्षांची पात्रता, निकष, अभ्यासक्रम व परीक्षा पध्दती
- 4. विविध पदांची ओळख आणि कार्यपध्दती
- उच्चपदस्थ अधिकारी व तज्ज्ञ व्यक्तींचे मार्गदर्शन
- उद्योजकता विकास आणि परदेशी शिक्षण व नोकरीच्या संधी या विषयी मार्गदर्शन

























हेल्पलाईन नं. : 750 765 2555



नाव नोंदणी व अधिक माहितीसाठी आपले नाव या नंबरवर व्हॉटसॲप करा.