

MIT | **Arts, Commerce & Science College**

**Maharashtra Academy of Engineering and
Educational Research's**

**MIT Arts, Commerce and Science College, Alandi
(D) – 412 105.**

Experiential Learning Syllabus

University of Pune

STATISTICS

For First Year B. Sc. (Computer Science) Degree Course

(Formerly known as B. C. S. Course)

Syllabus

(To be implemented from Academic Year 2013-14)

Submitted by: Board of Studies, Statistics

1) Title of the Course: First Year B. Sc. (Computer Science)

2) Preamble: Statistics is a branch of science that can be applied practically in every walk of life. Statistics deals with any decision making activity in which there is certain degree of uncertainty and Statistics helps in taking decisions in an objective and rational way. The student of Statistics can study it purely theoretically which is usually done in research activity or it can be studied as a systematic collection of tools and techniques to be applied in solving a problem in real life.

In last 5 to 7 years, computers are playing very crucial role in the society. The use of computers has horizontally spread and also penetrated vertically in the society. It has become a part and parcel of common man. Thus there is a huge demand for computer education.

The University of Pune had done a pioneering work in this area and Three year degree course B. Sc. (Computer Science) of University of Pune (formerly known as B.C.S.) is very popular among the student community and I. T. Industry. This course covers various subjects which are required directly or indirectly for becoming computer professional. Statistics is one such important subject which is required and is extensively used in a vast spectrum of computer based applications. Data Mining and Warehousing, Theoretical Computer Science, Reliability of a computer Programme or Software, Machine Learning, Artificial Intelligence, Pattern Recognition, Digital Image Processing, Embedded Systems are just few applications to name where Statistics can be extensively used.

3) Introduction: The syllabus of Statistics for First Year of this course covers basic concepts and terminology in Statistics and covers basic tools and methods required for data analysis. The teachers teaching this syllabus and students should give emphasis on understanding the concepts and ability to apply statistical tools and techniques and not on the theoretical discussion. It is

4	Correlation and Linear Regression Analysis. (for bivariate raw data)
5	Fitting of second degree and exponential type models. (for bivariate raw data)
6	Multiple and Partial Correlation and Regression Analysis. (for trivariate data) + Using spreadsheet with use of readymade function.
7	Time Series (Moving Average and Fitting of AR(1) and AR(2) models).
8	Fitting of Binomial and Poisson distributions.
9	Fitting of Normal Distribution.
10	Model Sampling from Simple Continuous Distributions
11	Large Sample Tests.
12	Tests based upon t distribution.
13	Tests based upon chi square distribution.
14	Non parametric tests.

B) Practicals to be done using any spreadsheet (like MS-Excel in MS-Windows or Open-Office in Linux etc.)

1	Diagrammatic Representation and Descriptive Statistics for raw data
2	For a bivariate raw data, fitting various models and finding the "best fit". (3 problems to be solved in a slot)
3	Fitting of Geometric Distribution and Normal Distribution
4	Using random numbers, drawing of a sample from exponential distribution, normal distribution (Box Muller Transformation) etc.

C) Project –

Project is compulsory which is equivalent to 2 practicals.

Project will carry 5 marks as part of internal evaluation.

One project should be given to one practical batch of students.

The formal project report should be prepared by each student and it must be attached in Statistics journal.

10) Recommended books

Author Name	Year of Publication	Title	Publisher
Medhi J.	1992	Statistical Methods (An Introductory Text)	New Age International
Freund J.E.	2005	Modern Elementary Statistics	Pearson Publication
Trivedi K.S.	2001	Probability, Statistics, Design of Experiments and Queuing Theory with Applications of Computer Science	Prentice Hall of India, New Delhi

University of Pune

Three Year B. Sc. Degree Course in Computer Science

Subject : Electronics

Paper III

ELC-103: Practical Course

- 1 The practical course consists of 20 experiments.
- 2 Any two of the following activities with proper documentation will be considered as equivalent of 4 experiments weightage in term work.
 - i. Preparatory experiments
 - ii. Hobby projects
 - iii. Internet browsing
 - iv. industrial visit / live work experience
 - v. PCB Making
 - vi. Market Survey of Electronic Systems
 - vii. Circuit Simulations and CAD toolsThese will be evaluated in an oral examination for 20% marks at internal and term end examination.

3. All the students are required to complete a minimum of 16 experiments (four from each group) from the following list.

Group A Any Four

1. Study of forward and Reverse biased characteristics of PN Junction Diode
2. Study of breakdown characteristics and voltage regulation action of Zener diode
3. Study of output characteristics of Bipolar Junction Transistor in CE mode
4. Study of output and transfer characteristics JFET/MOSFET
5. Study of I-V characteristics of UJT and Demonstration of UJT based relaxation oscillator .
6. Study of solar cell.

Group B Any four

1. Verification of network theorems: KCL / KVL, Thevenin, Norton.
2. Verification of network theorems: Maximum Power Transfer, Superposition theorem.
3. Design, build and test Low pass and High pass RC filters.
4. Study of low voltage Half-wave, Full-wave and Bridge rectifier circuits.
5. Study of amplification action of BJT.
6. Study of potential divider biasing of BJT and its use in DC motor driving.
7. Build and test Inverting and non inverting amplifier using OPAMP.
8. Build and test adder and subtractor circuits using OPAMP.
9. Study of clipping and clamping circuits.

Group C Any Four

* Minimum Two experiments may be carriedout with CMOS ICs

1. Basic Logic gates using Diodes and transistors
2. Interconversions and realizations of logic expressions using ICs
3. Study of RS, JK and D flip flops using NAND gates
4. Study of Up/Down Counter
5. Study of decade counter IC circuit configurations
6. Study of 4-bit Shift register IC

Syllabus for S.Y.B.Sc.(Computer Science) to be implemented from 2014-15

Important to Note about Laboratory courses: It is absolutely necessary and essential that all the practical's for Paper III and Paper IV be conducted on Free and Open Source Operating System like Linux.

- All the practical's related to C and C++ needs to be conducted using GCC compiler.
- For laboratory work/assignments of Database Systems, PostgreSQL to be used.

CS-224:Database Practicals & Mini Project using Software Engineering techniques (Semester 1)

Title: Database Assignments and Mini Project using Software Engineering techniques

Objective:-

- Understanding the use of cursors, triggers, views and stored procedures
- Understanding the steps of system analysis and design
- Understanding Data requirements for a specific problem domain
- Designing Data base as per the Data requirements
- Designing queries as per the functional requirements

No	Topic	Lectures
1	Simple Queries	4
2	Nested Queries, using aggregate functions	4
3	Queries using Views	8
4	Queries using loops and conditional statements	8
5	Stored Function	12
6	Exception Handling	4
7	Cursors and Triggers	12

**CS-224: Database Practicals & Mini Project using Software
Engineering techniques
(Semester 2)**

No	Topic	Lectures
1	Problem definition , scope	8
2	Feasibility study	4
3	Gathering Data Requirements and Functional Requirement	12
4	ERD	4
5	Designing the normalized Database	8
6	Designing queries related to Functional requirements	12

Savitribai Phule Pune University

**Three Year Degree Course in
B. Sc. Computer Science**

SAVITRIBAI PHULE PUNE UNIVERSITY
Proposed Draft of
T.Y. B. Sc. COMPUTER SCIENCE SYLLABUS
TO BE IMPLEMENTED FROM ACADEMIC YEAR 2015-16
TITLE OF PAPER :Lab Course III – Programming in PHP & Project
Code No. : CS-349

Aim:

To understand the process of designing and implementing Web applications, using PHP.

Objective :-

1. Implement Simple PHP programs to solve simple problems

Syllabus

Sr. No	Topic	Lectures
PHP		
1	String manipulation	8 Lectures
2	Arrays	8 Lectures
3	Inheritance	8 Lectures
4	File Handling	8 Lectures
5	Form designing	8 Lectures
6	Database Connectivity	8 Lectures
7	Sessions and cookies	8 Lectures
8	Java script with AJAX	8 Lectures
Networking		
1	Setting a LAN Environment	4 Lectures
2	Configuring the Server	4 Lectures
3	Use of Service Primitives	4 Lectures
4	Use of Networking Tools	12 Lectures
Project		
1	Choose Project topic and Prepare problem description	
2	Study of Existing System	
3	Identifying users and functionalities of proposed system	
4	Preparing the Design of the proposed system- Data Design Screen and Report Designs	
5	Implementation	

Examination

Internal Marks: Project (20) Continuous Evaluation.

External Marks: One programs (30) (large program on PHP + small program PHP), networking(10)
 – Internal, Lab book(10), Project(30) -20 Marks External + 10 Marks Internal for Project Demo
 before Final Practical Exam

University of Pune

Two Year M.Sc. Degree Course in Computer Science

M.Sc. Computer Science

**(Credit and Semester based Syllabus for affiliated colleges to be implemented
from Academic Year 2013-14)**

Grade and Grade Point Average		
Marks	Obtained Grade	Grade Points
100 – 75	'O' Outstanding	06
74 – 65	'A' Very Good	05
64 – 55	'B' Good	04
54 – 50	'C' Average	03
49 – 45	'D' Satisfactory	02
44 – 40	'E' Pass	01
39 and less	'F' Fail	00

Final Grade Points	
Grade Points	Final Grade
5.00 – 6.00	O
4.50 – 4.99	A
3.50 – 4.49	B
2.50 – 3.49	C
1.50 – 2.49	D
0.50 – 1.49	E
0.00 – 0.49	F

Common Formula for Grade Point Average (GPA):

$$\text{GPA} = \frac{\text{Total of Grade Points earned} \times \text{Credit hours for each course}}{\text{Total Credit hours}}$$

B Grade is equivalent to at least 55% of the marks

[E] External Students: There shall be no external students.

[F] Setting of Question Paper / Pattern of Question Paper

For core (compulsory) theory courses end semester question papers set by the University of Pune and centralized assessment for theory papers done as per the University guidelines.

[G] Verification / Revaluation

There is also a provision for verification and revaluation. In case of verification, the existing rules will be applicable. There shall be revaluation of end semester examination, but not of internal assessment.

6) Structure of Course

- Duration : The entire Programme is a Two year and four semester full time Programme.
- No of Courses : For first three semesters there will be Five courses. The fourth semester will be Industrial Training/Institutional Project and two theory courses.

Year/ Semester	Subject	Paper	Title of Paper	Credit	% of Assessment		
					IA	UE	Total
I Year Sem-I	Core	CS-101	Principles of Programming Languages	5	50	50	100
	Core	CS-102	Advanced Networking	5	50	50	100
	Core	CS-103	Distributed Database Concepts	5	50	50	100
	Core	CS-104	Design and Analysis of Algorithms	5	50	50	100
	Core	CS-105	Network Programming	5	50	50	100

Minimum Credit : 25 Maximum Credit : 25. Core Subject is compulsory . IA :- Internal Assessment, UE :- University Examination

Year/ Semester	Subject	Paper	Title of Paper	Hours/ Week	Credit	% of Assessment		
						IA	UE	Total
I Year Sem-II	Core	CS-201	Digital Image Processing	4	5	50	50	100
	Core	CS-202	Advanced Operating Systems	4	5	50	50	100
	Core	CS-203	Data Mining and Data Warehousing	4	5	50	50	100
	Core	CS-204	Project	4	5	50	50	100
	Elective	CS-205	Programming With DOT NET	4	5	50	50	100
	Elective	CS-206	Artificial Intelligence	4	5	50	50	100
	Elective	CS-207	Advance Design and Analysis of Algorithms	4	5	50	50	100

Minimum Credit : 25 Maximum Credit : 30. Core Subject is compulsory. From elective courses student can select one course for minimum credit and two for maximum credit. IA :- Internal Assessment, UE :- University Examination

Year/ Semester	Subject	Paper	Title of Paper	Credit	% of Assessment		
					IA	UE	Total
II Year Sem-III	Core	CS-301	Software Metrics & Project Management	5	50	50	100
	Core	CS-302	Mobile Computing	5	50	50	100
	Core	CS-303	Soft Computing	5	50	50	100
	Elective	CS-304	Project	5	50	50	100
	Elective	CS-305	Web Services	5	50	50	100
	Elective	CS-306	Database and System Administrator	5	50	50	100
	Elective	CS-307	Functional Programming	5	50	50	100
	Elective	CS-308	Business Intelligence	5	50	50	100

**Syllabus for M.Sc. (Computer Science)
in affiliated colleges to University of Pune**

(To be implemented from Academic year 2014-2015)

Credit Based System

Year/ Semester	Subject	Paper	Title of Paper	Hours/ Week	Credit	% of Assessment		
						IA	UE	Total
II Year Sem-III	Core	CS-301	Software Metrics & Project Management	4	5	50	50	100
	Core	CS-302	Mobile Computing	4	5	50	50	100
	Core	CS-303	Soft Computing	4	5	50	50	100
	Elective	CS-304	Project	4	5	50	50	100
	Elective	CS-305	Web Services	4	5	50	50	100
	Elective	CS-306	Database and System Administration	4	5	50	50	100
	Elective	CS-307	Functional Programming	4	5	50	50	100
	Elective	CS-308	Business Intelligence	4	5	50	50	100

Minimum Credit : 25, Maximum Credit : 35 Core Subject is compulsory, From elective courses student can select two course for minimum credit and four for maximum credit. IA :- Internal Assessment, UE :- University Examination

Year/ Semester	Subject	Paper	Title of Paper	Hours/ Week	Credit	% of Assessment		
						IA	UE	Total
II Year Sem-IV	Core	CS-401	Industrial Training /Institutional project	-	15	50	50	100
	Elective	CS-402	Parallel Computing	4	5	50	50	100
	Elective	CS-403	Embedded System	4	5	50	50	100
	Elective	CS-404	Software Quality Assurance	4	5	50	50	100
	Elective	CS-405	Modeling and Simulation	4	5	50	50	100

Core Subject is compulsory. If student had completed 85 credit within three semesters then no need to select any elective course otherwise student should select appropriate number of elective courses to minimum complete 100 credits.

IA :- Internal Assessment, UE :- University Examination

**BBA (Computer Application)
Equivalence**

Sr. No.	Old Course 2008 Pattern		New Course 2013 Pattern	
	Sub Code	Title of Subject	Sub Code	Title of Subject
01	101	Business Communication	104	Business Communication
02	102	Principles of Management	105	Principles of Management
03	103	Programming Principles and Algorithms	103	Programming Principles & Algorithms
04	104	Computer Fundamental and Office Automation	101	Modern Operating Environment & MS Office
05	105	Business Accounting	102	Financial Accounting
06	106	Computer Laboratory and Practical Work (OA+PPA)	106	Laboratory Course - I [Based on Paper No.101 & 102]
07	201	Organizational Behavior	203	Organizational Behavior
08	202	Elements of Statistics	204	Computer Application in Statistics
09	203	'C' Programming	201	Procedure Oriented Programming Using C
10	204	File Structure and Database Concepts	202	Database Management System
11	205	Cost Accounting	205	E-Commerce Concepts
12	206	Computer Laboratory and Practical Work (c programming + DBMS)	206	Laboratory Course - II [Based on Paper No.201 & 202]
13	301	Numerical Methods	304	Business Mathematics
14	302	Data Structure using C	302	Data Structure using C
15	303	Software Engineering	305	Software Engineering

16	304	Management Accounting	303	Operating System Concepts
17	305	RDBMS	301	Relational Database Management System
18	306	Computer Laboratory and RDBMS	306	Laboratory Course – III [Based on Paper No.301 and 302]
19	401	Networking	403	Computer Networking
20	402	Visual Basic	402	Programming in Visual Basic
21	403	Inventory Management (SAD)	404	Enterprise Resource Planning
22	404	Human Resource Management	405	Human Resource Management
23	405	Object Oriented Programming using C++	401	Object Oriented Programming using C++
24	406	Computer Laboratory and Practical Work (VB + C++)	406	Laboratory Course – IV [Based on Paper No. 401 & 402]
25	501	.NET Frameworks	503	Dot Net Programming
26	502	Internet Programming and Cyber Law	502	Web Technologies
27	503	Principals of Marketing	504	Object Oriented Software Engineering
28	504	Core Java	501	Java Programming
29	505	Project work (VB)	505	Software Project - [Based on C++/VB Technology]
30	506	Computer Laboratory and Practical Work (.NET + Core Java)	506	Laboratory Course – V [Based on Paper No. 501 & 502]
31	601	E-Commerce	604	Software Testing
32	602	Multimedia Systems	603	Recent Trends in IT
33	603	Introduction to SysPro And Operating Systems	601	Advanced Web Technology

34	604	Advance Java	602	Advance Java
35	605	Project Work (Banking & Finance, Cost Analysis, Financial Analysis, Payroll, EDP, ERP etc.)	605	Software Project – II [Java/ Dot net Technology]
36	606	Computer Laboratory and Practical Work (Multimedia + Advanced Java)	606	Laboratory Course – VI [Based on Paper No. 601 & 602]

**Revised Syllabi for Three - Year Integrated
B.Com. Degree course
(From June 2013)**

1) INTRODUCTION

The revised syllabi for B.Com Degree Course will be introduced in the following order.

- | | | |
|------|--------------------|-----------|
| i) | First Year B.Com. | 2013-2014 |
| ii) | Second Year B.Com. | 2014-2015 |
| iii) | Third Year B.Com. | 2015-2016 |

The B.Com. Degree Course (Revised Structure) will consist of three Years. The first year annual examination will be held at the end of the first year. The Second Year annual examination will be held at the end of the second year. The Third annual examination shall be held at the end of the third year.

2) ELIGIBILITY

1. No Candidates shall be admitted to enter the First Year of the B.Com. Degree Course (Revised Structure) unless he/she has passed the Higher Secondary School Certificate Examination of the Maharashtra State Board of Higher Secondary Education Board or equivalent or University with English as a passing subject.
2. No candidate shall be admitted to the annual examination of the First year B.Com. (Revised Structure) unless he/ she has satisfactorily kept two terms for the course at the college at the college affiliated to this University.
3. No candidate shall be admitted to the annual examination of the Second Year unless he/she has kept two terms satisfactorily for the course at the college affiliated to this University.
4. No candidate shall be admitted to the Third year of the B.Com. Degree Course (Revised Structure) unless he/she has passed in all the papers at the First Year B.Com. Examination and has passed in all the papers at the first Year B.Com. Examination and has satisfactorily kept terms for the second year and also two terms for the third year of B.Com. satisfactorily in a college affiliated to this University.

3) A.T.K.T. Rules :

As far as A.T.K.T. is concerned, a student who fails in two theories and one practical head of passing at F.Y.B.Com may be admitted to S.Y.B.Com. likewise a student who fails in the two theory and one practical head of passing at S.Y.B.Com may be admitted to T.Y.B.Com. But a student passing S.Y.B.Com but fails in any subject at F.Y.B.Com cannot be admitted to T.Y.B.Com.

4) (A) Revised Structure of B.Com. Course.

F.Y.B.Com. w.e.f. 2013-14	
Sr. No.	Compulsory / Main Subjects
101	Compulsory English
102	Financial Accounting
103	Business Economics (Micro)
104 (A)	Business Mathematics and Statistics
	or
104 (B)	Computer Concepts and Applications
105	Optional Group (Any one of the following) a) Organizational Skill Development. b) Banking & Finance c) Commercial Geography d) Defense Organization and Management in India e) Co-Operation. f) Managerial Economics
106	Optional Group (Any one of the following) a) Essentials of E-Commerce b) Insurance & Transport c) Marketing & Salesmanship d) Consumer Protection & Business Ethics. e) Business Environment & Entrepreneurship f) Foundation Course in Commerce
107	(Any one of the language from the following groups) Modern Indian Languages (M.I.L.) -: Compulsory English / Marathi / Hindi / Gujarathi / Sindhi / Urdu / Persian. Modern European Languages (M.E.L.) -: French / German. Ancient Indian Languages (A.I.L.) -: Sanskrit. Arabic.

S.Y.B.Com. w.e.f. 2014-15	
Sr. No.	Compulsory / Main Subjects
201	Business Communication.
202	Corporate Accounting.
203	Business Economics (Macro)
204	Business Management
205	Elements of Company Law
206	Special Subject – Paper I (Any one of the following) a) Business Administration b) Banking & Finance. c) Business Laws & Practices.

	<ul style="list-style-type: none"> d) Co-operation & Rural Development. e) Cost & Works Accounting. f) Business Statistics. g) Business Entrepreneurship. h) Marketing Management. i) Agricultural & Industrial Economics. j) Defense Budgeting, Finance & Management. k) Insurance, Transport & Tourism. l) Computer Programming and Applications.
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T.Y. B.Com. w.e.f. 2015-16	
Sr. No.	Compulsory / Main Subjects
301	Business Regulatory Framework (Mercantile Law)
302	Advanced Accounting.
303 (A)	Indian & Global Economic Development
	Or
303 (B)	International Economics
304	Auditing & Taxation
305	<p>Special Subject – Paper II (Same special subject offered at S.Y. B.Com.)</p> <ul style="list-style-type: none"> a) Business Administration b) Banking & Finance. c) Business Laws & Practices. d) Co-operation & Rural Development. e) Cost & Works Accounting. f) Business Statistics. g) Business Entrepreneurship. h) Marketing Management. i) Agricultural & Industrial Economics. j) Defense Budgeting, Finance & Management. k) Insurance, Transport & Tourism. l) Computer Programming and Applications.
306	<p>Special Subject – Paper III (Same special subject offered at S.Y. B.Com.)</p> <ul style="list-style-type: none"> a) Business Administration b) Banking & Finance. c) Business Laws & Practices. d) Co-operation & Rural Development. e) Cost & Works Accounting. f) Business Statistics. g) Business Entrepreneurship. h) Marketing Management. i) Agricultural & Industrial Economics. j) Defense Budgeting, Finance & Management. k) Insurance, Transport & Tourism. l) Computer Programming and Applications.

B) Subjects Carrying Practical's

There will be practical examination for the F.Y.B.Com. for the subject Financial Accounting. There will be practical and practical examinations for the special subjects at S.Y.B.Com. and T.Y.B.Com. levels. There will be Practical for the S.Y.B.Com level Compulsory subject Business Communication & for T.Y.B.Com Auditing & Taxation.

(C) A Student must offer the same Special Subject at T.Y.B.Com. which he has offered at S.Y.B.Com.

(D) In an exceptional cases, a student may change the subject chosen by him at second year during the first term of the third year provided he keeps the additional terms of the new subject at S.Y.B.Com.

4. EXTERNAL CANDIDATES

- 1) The student who has registered his name as the external student will appear at the annual examination.
- 2) The result of external student will be declared on the basis of Annual Examination of 80 marks for practical subjects by converting the same out of 100.
- 3) No foreign student shall be allowed to register as an External Student.

5. MEDIUM OF INSTRUCTION.

Medium of instruction for B.Com. degree course shall be either Marathi or English except languages.

The Medium of instructions for Business Communication (S.Y.B.Com) shall be English only.

6. WORKLOAD

The present norms of workload of lectures, tutorials and practicals per subject in respect of B.Com. Course shall continue.

7. UNIVERSITY TERMS

The dates for the commencement and conclusion of the first and the second terms shall be as determined by the University Authorities. The terms can be kept only by duly admitted students. The present relevant ordinances pertaining to grant of terms will be applicable.

8. VERIFICATION AND REVALUATION

The candidate may apply for verification and revaluation or result through Principal of the College which will be done by the University as per ordinance framed in that behalf.

9. EQUIVALENCE AND TRANSITORY PROVISION

The University will conduct examination of old course for next three academic years from the date of implementation of new course.

The candidate of old course will be given three chances to clear his subjects as per the old course and thereafter he will have to appear for the subjects under new course as per the equivalence given to old course.

UNIVERSITY OF PUNE
COURSE STRUCTURE FOR
BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)
(From 2013-14)

1. Title:

The degree shall be titled as Bachelor of Business Administration (B.B.A.) under the Faculty of Commerce Part I w.e.f. the academic year 2013-2014 B.B.A. Part II w.e.f. 2014-2015 and B.B.A. Part III w.e.f. 2015-2016.

2. Objectives:

- (i) To provide adequate basic understanding about Management Education among the students.
- (ii) To prepare students to exploit opportunities being newly created in the Management Profession.
- (iii) To train the students in communication skills effectively.
- (iv) To develop appropriate skills in the students so as to make them competent and provide themselves self-employment.
- (v) To inculcate Entrepreneurial skills.

3. Duration:

The Course shall be a full time course and the duration of the course shall be of three years.

4. Eligibility:

- (i) A candidate for being eligible for admission to the Degree course in Bachelor of Business Administration shall have passed 12th Std. Examination (H.S.C. 10+2) from any stream with English as passing subject and has secured 40% marks at 12th Std.
- (ii) Two years Diploma in Pharmacy after H.S.C., Board of Technical Education conducted by Government of Maharashtra or its equivalent.
- (iii) Three Year Diploma Course (after S.S.C., i.e. 10th Standard) of Board of Technical Education conducted by Government of Maharashtra or its equivalent.
- (iv) MCVC

(v) Every eligible candidate has to pass a Common Entrance Test to be conducted by the respective Institute/College.

5. Medium of Instruction:

Medium of instruction shall be in English only.

6. Scheme of Examination:

The B.B.A. Examination will be 3600 marks divided into 3 parts as per details given below:

(i) B.B.A. Part I (Sem I, II) Aggregate marks	1200
(ii) B.B.A. Part II (Sem III, IV) Aggregate marks	1200
(iii) B.B.A. Part III (Sem V, VI) Aggregate marks	1200

There will be written Examination of 80 marks and 3 hrs duration for every course at the end of each Semester. The class work will carry 20 marks in each course. For Courses in Business Exposure (Sem IV) there will be viva voce examination of 50 marks and for Written Report on Industrial visits 50 marks. For course on Project work (Sem VI) there will be oral presentation test consisting of 20 marks and Written Report of 30 marks.

7. Backlog:

- a) A student shall be allowed to keep term for the Second Year, if he/she has a backlog of not more than three theory & one practical or four theory heads of total number of subjects of the First Year examination, which consist of First & Second Semester.
- b) A student shall be allowed to keep for the Third Year, if he/she has no backlog of First Year & if he/she has a backlog of not more than three theory & one practical or four theory heads of total number of subjects of the Second Year examination, which consist of Third & Fourth Semester.

8. Verification and Revaluation

The candidate may apply for verification and revaluation or result through Principal of the College which will be done by the University as per ordinance framed in that behalf.

9. Equivalence and Transitory Provision

The University will conduct examination of old course for next three academic years from the date of implementation of new course.

B.B.A Equivalence
B.B.A First Year (F.Y)

Pattern -2013			Pattern – 2008		
Sr. No.	Sub Code	Semester – I	Sr. No.	Sub Code	Semester – I
1	101	Business Organisation & System	1	101	Business Organisation & System
2	102	Business Communication Skills	2	102	Business Communication Skills
3	103	Business Accounting	3	103	Business Accounting
4	104	Business Economics (Micro)	4	104	Business Economics (Micro)
5	105	Business Mathematics	5	105	Business Mathematics
6	106	Demography & Environmental Studies	6	106	Demography & Environmental Studies

Pattern -2013			Pattern – 2008		
Sr. No.	Sub Code	Semester - II	Sr. No.	Sub Code	Semester - II
1	201	Principles of Managements	1	201	Principles of Managements
2	202	Principles of Marketing	2	202	Principles of Marketing
3	203	Principles of Finance	3	203	Principles of Finance
4	204	Basics of Cost Accounting	4	204	Basics of Cost Accounting
5	205	Business Statistics	5	205	Business Statistics
6	206	Business Informatics	6	206	Business Informatics

B.B.A. Second Year (S.Y.)

Pattern -2013			Pattern – 2008		
Sr. No.	Sub Code	Semester – III	Sr. No.	Sub Code	Semester – III
1	301	Personality Development	1	301	Personality Development
2	302	***Business Ethics	2	302	***Business Laws
3	303	Human Resource Management & Organisation Behaviors	3	303	Human Resource Management & Organisation Behaviors
4	304	Management Accounting	4	304	Management Accounting
5	305	Business Economic (Macro)	5	305	Business Economic (Macro)
6	306	I.T.in Management	6	306	I.T.in Management

Pattern -2013			Pattern – 2008		
Sr. No.	Sub Code	Semester – IV	Sr. No.	Sub Code	Semester – IV
1	401	Production & Operations Management	1	401	Production & Operations Management
2	402	Industrial Relations & Labour laws	2	402	Industrial Relations & Labour laws
3	403	Business Taxation	3	403	Business Taxation
4	404	International Business	4	404	International Business
5	405	Management Information System	5	405	Management Information System
6	406	Business Exposure (Field Visits)	6	406	Business Exposure (Field Visits)

B.B.A Third Year (T.Y.)

Pattern -2013			Pattern – 2008		
Sr. No.	Sub Code	Semester – V	Sr. No.	Sub Code	Semester – V
1	501	Supply Chain and logistics Management	1	501	Supply Chain and logistics Management
2	502	Entrepreneurship Development	2	502	Entrepreneurship Development
3	503	***Business Laws	3	503	***Business Ethics
4	504	Research Methodology (Tools & Analysis)	4	504	Research Methodology (Tools & Analysis)
5	505	Specialisation –I	5	505	Specialisation –I
6	506	Specialisation –II	6	506	Specialisation –II

Pattern -2013			Pattern – 2008		
Sr. No.	Sub Code	Semester – VI	Sr. No.	Sub Code	Semester – VI
1	601	Business Planning & Project Management	1	601	Business Planning & Project Management
2	602	Event Management	2	602	Event Management
3	603	Management Control System	3	603	Management Control System
4	604	E- Commerce	4	604	E- Commerce
5	605	Specialisation –III	5	605	Specialisation –III
6	606	Specialisation – IV	6	606	Specialisation – IV

Specialisation : 1) Finance 2) Marketing 3) Human Resource Management
4) Service Sector Management 5) Agri. Business Management

B.B.A. (I.B.) Equivalence

2008 Pattern		2013 Pattern	
Sem I		Sem I	
101	Indian Business Environment	101	Indian Business Environment
102	Communication Skills & Personality Development.	102	Communication Skills & Personality Development.
103	Micro Economic Analysis.	103	Micro Economic Analysis.
104	Business Accounting.	104	Business Accounting.
105	Principles & Practice of Management.	105	Principles & Practice of Management.
106	Business Mathematics.	106	Business Mathematics.
Sem II		Sem II	
201	Cost Accounting	201	Cost Accounting
202	Elements of HRM .	202	Elements of HRM .
203	Macro Economic Analysis.	203	Macro Economic Analysis.
204	Principles of Marketing.	204	Principles of Marketing.
205	Business Statistics.	205	Business Statistics.
206	IT in Business Operations.	206	IT in Business Operations.
Sem III		Sem III	
301	International Business Environment.	301	International Business Environment.
302	Production & Operations Management.	302	Production & Operations Management.
303	International Economics	303	International Economics
304	International Marketing.	304	International Marketing.

305	Management Accounting. (Equivalence to 306 in 2013 pattern)	305	Foreign Language - Paper I (Asian - Chinese, Japanese) (European - German, French and Spanish) (Equivalence to 506 in 2008 pattern)
306	E- Commerce. (Equivalence to 506 in 2013 pattern)	306	Management Accounting. (Equivalence to 305 in 2008 pattern)
Sem IV		Sem IV	
401	Supply Chain & Logistics Management (Equivalence to 605 in 2013 pattern)	401	Foreign Exchange Operations. (Equivalence to 402 in 2008 pattern)
402	Foreign Exchange Operations. (Equivalence to 401 in 2013 pattern)	402	International Business in Service (Equivalence to 403 in 2008 pattern)
403	International Business in Service (Equivalence to 402 in 2013 pattern)	403	International Agricultural Business. (Equivalence to 404 in 2008 pattern)
404	International Agricultural Business. (Equivalence to 403 in 2013 pattern)	404	Business Taxation. (Equivalence to 405 in 2008 pattern)
405	Business Taxation. (Equivalence to 404 in 2013 pattern)	405	Foreign Language - Paper II (Asian - Chinese, Japanese) (European - German, French and Spanish) (Equivalence to 605 in 2008 pattern)
406	Business Exposure.	406	Business Exposure.
Sem V		Sem V	
501	Business Ethics.	501	Business Ethics.
502	Business Law.	502	Business Law.
503	International Relations.	503	International Relations.
504	International Banking & Finance	504	International Banking & Finance
505	Business Reporting and Analysis	505	Business Reporting and Analysis
506	Foreign Language - Paper I (Asian - Chinese,	506	E- Commerce.

	Japanese) (European - German, French and Spanish) (Equivalence to 305 in 2013 pattern)		(Equivalence to 306 in 2008 pattern)
Sem VI		Sem VI	
601	Export Import Procedure.	601	Export Import Procedure.
602	International Business Law.	602	International Business Law.
603	Study of Global Economies.	603	Study of Global Economies.
604	International Project Management.	604	International Project Management.
605	Foreign Language - Paper II. (Equivalence to 405 in 2013 pattern)	605	Supply Chain & Logistics Management (Equivalence to 401 in 2008 pattern)
606	Project (Project Report - 50) (Presentation - 30 Viva - 20)	606	Research Methodology (50 Marks) & Project (50 Marks)