



**M.V.P SAMAJ'S**  
**K.G.D.M ARTS, COMMERCE AND SCIENCE COLLEGE, NIPHAD**  
**PROGRAMME OUTCOMES**

**Course outcomes for three years Bachelor of Arts Degree course**

<b>B.A. English</b>		
<b>Programme Outcomes</b>		1.To develop linguistic competence of Students. 2.To introduce them with excellent pieces of writings in English Literature. 3.To familiarize them with basics of English Language. 4.To develop the ability of communicating in English among the students.
<b>Sr. No.</b>	<b>Course</b>	<b>Outcomes</b>
1	F. Y. B. A. Compulsory English (w. e. f- 2019- 2020) Prescribed Text: Literary Gleam: An Anthology of Prose and Poetry	1.To expose students to the best examples of prose and poetry in English so that they realize the beauty and communicative power of English 2.To instill human values and develop the character of students as responsible citizens of the world 3.To develop the ability to appreciate ideas and think critically 4.To enhance employability of the students by developing their linguistic competence and communicative skills 5.To revise and reinforce structures already learnt in the previous stages of learning.
2	F. Y. B. A. Optional English (General Paper-I) (w. e. f- 2019- 2020) Prescribed Text: <i>Initiations: Minor            Literary Forms &amp; Basics            of Phonology</i> (Board of Editors- Orient BlackSwan)	1.To expose students to the basics of literature and language and develop an integrated view about language and literature in them 2.To acquaint them with minor forms of literature in English and help them to appreciate the creative use of language in literature 3.To introduce them to the basics of phonology of English so that they can pronounce better and speak English correctly. 4.To prepare students to go for detailed study and understanding of literature and language 5.To enhance the job potential of students by improving their language skills
3	S. Y. B. A. Compulsory English (w. e. f- 2014- 2015)	1. To develop competence among the students for self-learning 2. To familiarize students with excellent pieces of prose and poetry in English so that they realize the beauty and communicative power of English 3. To develop students' interest in reading literary pieces 4. To expose them to native cultural experiences and situations in order to develop humane values and social awareness 5. To develop overall linguistic competence and communicative skills of the students

4	S. Y. B. A. General English (G-2) (w. e. f- 2014- 2015) Title of the Paper: Study of English Language and Literature	<ol style="list-style-type: none"> <li>1. To expose students to the basics of short story, one of the literary forms</li> <li>2. To familiarize them with different types of short stories in English</li> <li>3. To make them understand the literary merit, beauty and creative use of language</li> <li>4. To introduce some advanced units of language so that they become aware of the technical aspects and their practical usage</li> <li>5. To prepare students to go for detailed study and understanding of literature and language</li> <li>6. To develop integrated view about language and literature</li> </ol>
5	S. Y. B. A. Special Paper-I (S-1) (w. e. f- 2014- 2015) Appreciating Drama	<ol style="list-style-type: none"> <li>1. To acquaint and familiarize the students with the terminology in Drama Criticism (i.e. the terms used in Critical Analysis and Appreciation of Drama)</li> <li>2. To encourage students to make a detailed study of a few sample masterpieces of English Drama from different parts of the world</li> <li>3. To develop interest among the students to appreciate and analyze drama independently</li> </ol> <p>To enhance students awareness in the aesthetics of Drama and to empower them to evaluate drama independently</p>
6	S. Y. B. A Special Paper-II (S-2) (w. e. f- 2014- 2015) Title of the Paper: Appreciating Poetry	<ol style="list-style-type: none"> <li>1. To acquaint and familiarize the students with the terminology in poetry criticism (i.e. the terms used in critical analysis and appreciation of poems)</li> <li>2. To encourage students to make a detailed study of a few sample masterpieces of English poetry</li> <li>3. To enhance students' awareness in the aesthetics of poetry and to empower them to read, appreciate and critically evaluate the poetry independently</li> </ol>
7	S. Y. B. Sc. English (w. e. f- 2014- 2015) Prescribed Text: Literary Vistas Ed. Board of Editors, Orient Blackswan	<ol style="list-style-type: none"> <li>1. To acquaint the students with the different modes of Communication in the context of modern life.</li> <li>2. To make them effective and efficient users of language.</li> <li>3. To impress upon their minds the importance and value of Communication in personality development and career prospects.</li> <li>4. To enhance their employment opportunities in communication based careers.</li> </ol>
8	T. Y. B. A. Compulsory English (w. e. f- 2015- 2016)	<ol style="list-style-type: none"> <li>1. To introduce students to the best uses of language in literature.</li> <li>2. To familiarize students with the communicative power of English</li> <li>3. To enable students to become competent users of English in real life situations</li> <li>4. To expose students to varied cultural experiences through literature</li> <li>5. To contribute to their overall personality development by improving their communicative and soft skills</li> </ol>

9	T. Y. B. A. General English (G-3) (w. e. f- 2015- 2016) Advanced Study of English Language and Literature	<ol style="list-style-type: none"> <li>1. To expose students to some of the best samples of Indian English Poetry</li> <li>2. To make the students see how Indian English poetry expresses the ethos and culture of India</li> <li>3. To make them understand creative uses of language in Indian English Poetry</li> <li>4. To introduce students to some advanced areas of language study</li> <li>5. To prepare students to go for detailed study and understanding of literature and language</li> <li>6. To develop integrated view about language and literature among the students</li> </ol>
10	T.Y.B.A. Special Paper III (S-3) (w. e. f. 2015-16) Appreciating Novel	<ol style="list-style-type: none"> <li>1.To introduce students to the basics of novel as a literary form</li> <li>2.To expose students to the historical development and nature of novel</li> <li>3.To make students aware of different types and aspects of novel</li> <li>4.To develop literary sensibility and sense of cultural diversity in students</li> <li>5.To expose students to some of the best examples of novel</li> </ol>
11	T.Y.B.A. Special Paper IV(S-4) (w. e. f. 2015-16) Introduction to Literary Criticism	<ol style="list-style-type: none"> <li>1.To introduce students to the basics of literary criticism</li> <li>2.To make them aware of the nature and historical development of criticism</li> <li>2. To make them familiar with the significant critical approaches and terms</li> <li>3. To encourage students to interpret literary works in the light of the critical approaches</li> <li>5.To develop aptitude for critical analysis</li> </ol>

<b>B.A. Political Science</b>		
<b>Programme Outcomes</b>		<p>1. This program focuses in detail on the political processes and the actual functioning of the political system .It simultaneously studies in detail the political structure both Constitutional and Administrative</p> <p>2. This program focuses on key thinkers from ancient to modern times to understand their seminal contribution to the evolution of Political theorizing in India</p> <p>3.This program studies the classical tradition in political theory from Plato to Marx with the view to understand how the great Masters explained and analyzed political events and problems of their time and prescribed solutions.</p> <p>This program studies the role of different political ideologies and their impact in politics.</p> <p>5.To introduce the students to the structure of Local Self Government of Maharashtra.</p> <p>6.This program deals with concepts and dimensions of international relations and makes an analysis of different theories highlighting the major debates and differences within the different theoretical paradigms.</p>
<b>Sr. No.</b>	<b>Course</b>	<b>Outcomes</b>
1	F.Y.B.A. Political science G-1 General Paper- Introduction To Indian Constitution (2019-20 CBCS Pattern)	<p>1. To acquaint students with the important features of the Constitution of India andwith The basic framework of Indian government.</p> <p>2. To familiarize students with the working of the Constitution of India</p>
2	S.Y.B.A Political Science G-2 General Paper Political Theory& Concepts(implemented from 2014-2015)	<p>1. This is an introductory paper to the concepts, ideas and theories in political theory.</p> <p>2. It seeks to explain the evolution and usage of these concepts, ideas and theories with reference to individual thinkers both historically and analytically.</p> <p>3. The different ideological standpoints with regard to various concepts and theories are to be critically explained with the purpose of highlighting the differences in their perspectives and in order to understand their continuity and change. Furthermore there is a need to emphasize the continuing relevance of these concepts today and explain how an idea and theory of yester years gains prominence in contemporary political theory.</p>
3	S.Y.B.A Political Science Special Paper- I Western Political Thought (Implemented From 2014-2015)	<p>1. This paper studies the classical tradition in political theory from Plato to Marx with the view to understand how the great Masters explained and analyzed political events and problems of their time and prescribed solutions.</p> <p>2. The texts are to be interpreted both in the historical and philosophical perspectives to understand the universality of the enterprise of political theorizing.</p> <p>3. The limitations of the classical tradition, namely its neglect of women’s concerns and issues and the non-European world are critically examined.</p> <p>4. The legacy of the thinkers is explained with the view to establish the continuity and change within the Western political tradition.</p>

4	TYBA Political Science (G-3) Political Ideologies	<p>1. This paper studies the role of different political ideologies and their impact in politics. Each ideology is critically studied in its historical context.</p> <p>2. In course of its evolution and development, the different streams and subtle nuances within each ideology, the changes and continuities in its doctrine and its relevance to contemporary times are highlighted.</p> <p>3. The close link between an idea and its actual realization in public policy needs to be explained as well. The philosophical basis of the ideologies is emphasized with special emphasis on key thinkers and their theoretical formulations.</p> <p>The legacy of all the major ideologies is to be critically assessed.</p>
5	TYBA Political Science (S-3) Public Administration	<p>1. This paper is an introductory course in Public Administration.</p> <p>2. The essence of Public Administration lies in its effectiveness in translating the governing philosophy into programmes, policies and activities and making it a part of community living.</p> <p>3. The paper covers personnel public administration in its historical context thereby proceeding to highlight several of its categories, which have developed administrative salience and capabilities to deal with the process of change.</p> <p>4. The recent developments and particularly the emergence of New Public Administrations are incorporated within the larger paradigm of democratic legitimacy.</p> <p>5. The importance of legislative and judicial control over administration is also highlighted.</p>
6	TYBA Political Science (S-4) International Politics	<p>1. This paper deals with concepts and dimensions of international relations and makes an analysis of different theories highlighting the major debates and differences within the different theoretical paradigms.</p> <p>2. The dominant theories of power and the question of equity and justice, the different aspects of balance of power leading to the present situation of a world are included.</p> <p>3. It highlights various aspects of conflict and conflict resolution, collective security and in the specificity of the long period of the post Second World War phase of the Cold War, of Détente and Deterrence leading to theories of rough parity in armaments.</p>

## B.A. Psychology

<b>B.A. Psychology</b>		
<b>Programme Outcomes</b>	After the completion of this program students will be able to: 1. Understand the basic psychological processes and their applications in day to day life. 2. This Program helps to create awareness about mental health problems in society. 3. To help students understand the basic steps in scientific research. 4. To encourage and guide the students to undertake a small-scale research project. 5. Understand the personality and intelligence of the individuals by developing their psychological processes and abstract potentials. 6. Understand the periods of development, the significance of age, and discuss developmental	
<b>Sr. No.</b>	<b>Course</b>	<b>Outcomes</b>
1	F. Y. B. A. G1: General Psychology (To be implemented from 2019-2020)	1. Understand the basic psychological processes and their applications in day to day life. 2. Develop the ability to evaluate cognitive processes, learning and memory of an individual. 3. Understand the importance of motivation and emotion of the individual. 4. Understand the personality and intelligence of the individuals by developing their psychological processes and abstract potentials.
2	S.Y.B.A. S-1 -A: - Abnormal Psychology	1. To acquaint students with the recent classification of abnormality. 2. To help students to acquire the knowledge about the causes, symptoms and treatments of various types of psychological disorders.
3	S.Y.B.A. S-2 A: - Developmental Psychology	1. To acquaint the students with the basic concepts of human development processes. 2. To help the students to understand influences of various factors on development
4	S.Y.B.A. G-2: Social Psychology	1. Acquaint Students with basic concepts, theories and applications of Social psychology 2. Familiarize students with group behaviour 3. Underline the importance of Close Relationships and Pro- social behaviour arious factors on development.
5	S3: Scientific Research & Experimental Psychology (To be Implemented From 2015-2016)	1. To acquaint the students with the basic concepts of experimental psychology and research methodology, 2. To develop the spirit of scientific inquiry in the students, 3. To help them generate ideas for research, as well as develop hypotheses and operational definitions for variables. 4. To help students understand the basic steps in scientific research, 5. To equip the students with the basic information and knowledge about test-administration and scoring, and interpretation of the obtained results, 6. To enable the students to undertake an independent small-scale research project.

6	S4: Psychology Practicals: Test & Experiments (To be implemented from 2015-16)	<ol style="list-style-type: none"> <li>1. To familiarize the students with the use of elementary statistical techniques,</li> <li>2. To give practical experience to the students in administering and scoring psychological tests and interpreting the scores,</li> <li>3. To acquaint the students with the basic procedure and design of psychology experiments,</li> <li>4. To encourage and guide the students to undertake a small-scale research project.</li> <li>5. To encourage students to learn practical application through study tour and visit.</li> </ol>
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### B.A. Geography

Sr. No.	Course	Outcomes
1	Gg- 110A - Physical Geography(G-1) Revised Syllabus (from June, 2019) Semester-I	<p>Upon Successful completion of this course the student will be able to</p> <ol style="list-style-type: none"> <li>1. The geographical maturity of students in their current and future courses shall develop.</li> <li>2. The students develops theoretical, applied and Computational skills.</li> <li>3. To introduce the students to the basic concepts in physical geography</li> <li>4. To introduce latest concept in physical geography</li> <li>5. To acquaint the students with the utility and application of physical geography in different region and environment</li> </ol>
2	Gg- 110B - Human Geography(G-1) Revised Syllabus (from June, 2019) Semester-II	<p>Upon Successful completion of this course the student will be able to</p> <ol style="list-style-type: none"> <li>1. The geographical maturity of students in their current and future courses shall develop.</li> <li>2. The students develops theoretical, applied and Computational skills.</li> <li>3. To introduce latest concept in Human geography</li> <li>4. To make the students aware about human evaluation</li> </ol>
3	Gg- 111 - Introduction to Physical Geography- I (Geomorphology) , Revised Syllabus (from June, 2019) Semester-I	<p>On Successful completion of this course the student will be able to</p> <ol style="list-style-type: none"> <li>1. The geographical maturity of students in their current and future courses shall develop.</li> <li>2. The students develops theoretical, applied and Computational skills.</li> <li>3. To introduce the students to the basic concepts in physical geography</li> <li>4. To introduce latest concept in physical geography</li> <li>5. To acquaint the students with the utility and application of physical geography in different region and environment</li> </ol>
4	Gg- 112 - Introduction to Physical Geography- II (Geography of atmosphere and Hydrosphere , Revised Syllabus (from June, 2019) Semester-I	<p>On Successful completion of this course the student will be able to</p> <ol style="list-style-type: none"> <li>1. The geographical maturity of students in their current and future courses shall develop.</li> <li>2. The students develops theoretical, applied and Computational skills.</li> <li>3. To introduce the students of the basic principals and concepts in Atmosphere and Hydrosphere</li> <li>4. To acquaint the students with the application of Atmosphere and Hydrosphere in different areas and environment.</li> <li>5. To make the students aware of atmospheric condition and thereby and enrich the student life.</li> </ol>

5	Gg- 113 - Practical's in Physical Geography-III, Revised Syllabus (from June, 2019) Semester-I	<p>Upon Successful completion of this course the student will be able to</p> <ol style="list-style-type: none"> <li>1. To introduce the students to the basic concepts in physical geography</li> <li>2.To acquire the knowledge of various techniques in physical geography</li> <li>3.To enable the students to use techniques of specific maps and their geographical interpretation.</li> <li>4.To acquaint the students with the Maps &amp; Scale , Projections and their utility and applications in geographical phenomenon</li> </ol>
6	Gg- 121 - Introduction to Human Geography-IV , Revised Syllabus (from June, 2019) Semester-II	<p>Upon Successful completion of this course the student will be able to</p> <ol style="list-style-type: none"> <li>1. To introduce the students to the basic concepts in Human geography</li> <li>2. This course is to acquaint the students with the nature of man- environment relationship and human capability.</li> <li>3.To adopt and modify the environment under its varied conditions from primitive life style to the modern living;</li> <li>4.To identify and understand environment and population in terms of their quality and spatial distribution pattern.</li> <li>5.To comprehend the contemporary issues facing the global</li> </ol>
7	Gg- 122-Population and settlement Geography -V, Revised Syllabus (from June, 2019) Semester-II	<p>Upon Successful completion of this course the student will be able to</p> <ol style="list-style-type: none"> <li>1.To introduce latest concept in population and settlement geography</li> <li>2. To acquaint the students with the utility and application of population and settlement geography in different region and environment</li> <li>3.To provide an understanding of spatial and structural dimensions population</li> <li>4.To familiarizing the students with global and regional level problems.</li> <li>5.To acquaint the students with the spatial, political and structural characteristics of human settlement under varied environmental conditions.</li> </ol>
8	Gg- 123 - Practical's in Human Geography-VI, Revised Syllabus (from June, 2019) Semester-II	<p>On Successful completion of this course the student will be able to</p> <ol style="list-style-type: none"> <li>1.The geographical maturity of students in their current and future courses shall develop.</li> <li>2. The students develops theoretical, applied and Computational skills.</li> <li>3. To introduce the students to the basic concepts in physical geography</li> <li>4. To introduce latest concept in physical geography</li> <li>5. To acquaint the students with the utility and application of physical geography in different region and environment</li> </ol>
9	Gg- 110 -Elements of Geomorphology (G-1) Revised Syllabus (from June, 2013).	<ol style="list-style-type: none"> <li>1.To introduce the students to the basic concepts in Geomorphology.</li> <li>2.To introduce latest concept in Geomorphology</li> <li>3.To acquaint the students with the utility and application of Geomorphology in different regions and environment.</li> <li>4.To make the students aware of the need of protection and conservation of different landform.</li> </ol>



10	Gg-210 Geography of Disaster Management (G2)	<ol style="list-style-type: none"> <li>1.To introduce students the concept of disaster &amp; its relation with Geography.</li> <li>2.To acquaint the students with the utility &amp; application of hazards in different areas &amp; its management.</li> <li>3.To make the students aware of the need of protection &amp; disaster management.</li> </ol>
11	Gg- 220 : Tourism Geography (S-1)	<ol style="list-style-type: none"> <li>1.To acquaint the student's basic concepts of Geography &amp; Tourism</li> <li>2.To aware the students with the utility and application of Tourism.</li> <li>3.To help the students &amp; society to understand the interrelationship between tourism and employment generation opportunities.</li> <li>4.To understand the impact of tourism on Physical and Human Environments.</li> </ol>
12	Gg-201 : Fundamentals Of Geographical Analysis(S-2)	<ol style="list-style-type: none"> <li>1.To enable the students to use various Projections and Cartographic Techniques.</li> <li>2.To acquaint the students with basic of Statistical data.</li> <li>3.To acquaint the students with the principles of surveying, its importance and utility in the geographical study.</li> </ol>
13	T.Y.B.A Gg. 301: Techniques of Spatial Analysis (S-4)	<ol style="list-style-type: none"> <li>1.To Introduce the Students with SOI Toposheets and to acquire the Knowledge of Toposheet Reading/Interpretation.</li> <li>2.To familiarize the students with the weather instruments and their applications in Geographical phenomena.</li> <li>3.To acquaint the students with IMD weather maps and to gain the knowledge of weather map Reading / interpretation.</li> <li>4.To train the students in elementary statistics as an essential part of geography. 5. To awareness about GIS among the students.</li> </ol>
14	T.Y.B.A Gg. 310:- Human Geography (General Geography) G-3	<ol style="list-style-type: none"> <li>1. This course is to acquaint the students with the nature of man-environment relationship and human capability.</li> <li>2. To adopt and modify the environment under its varied conditions from primitive life style to the modern living;</li> <li>3. To identify and understand environment and population in terms of their quality and spatial distribution pattern.</li> <li>4. To comprehend the contemporary issues facing the global community.</li> </ol>
15	T.Y.B.A Gg-320: Population and Settlement Geography (S-3)	<ol style="list-style-type: none"> <li>1. To provide an understanding of spatial and structural dimensions of population</li> <li>2. To familiarizing the students with global and regional level problems.</li> <li>3. To acquaint the students with the spatial, political and structural characteristics of human settlement under varied environmental conditions</li> </ol>

**B.A. Economics**

Sr. No.	Course	Outcomes
1	F.Y.B.A. Economics G-1, Indian Economic Environment (I & II) (CBCS Pattern 2019)	1.Ability to develop an understanding of the economic environment and the factors affecting economic environment. 2.Ability to develop awareness on the various new developments in the different sectors of an economy – agriculture, industry, services, banking, etc. 3.Ability to compare and contrast Indian Economy with other world economies. 4.At the end of the course, the student should be able discuss and debate on the various issues and challenges facing the Indian Economic Environment
2	S.Y.B.A. Economics G-2, Modern Banking From : June – 2014	To create the awareness among the students of Modern Banking System. Banking constitutes important components towards understanding of economics. Clear understanding of the operations of banking their interaction with the rest of the economy is essential to realize how monetary forces operate through a multitude of channels- market, non-market, Institutions and among others, the state.
3	S.Y.B.A. Economics S- 1, Micro Economics From: June – 2014	As a foundation course, in this Paper, student is expected to understand the behavior of an economic agent, namely, a consumer, a producer, a factor owner and the price fluctuation in a market. The chapter incorporated in this Paper deal with the nature and scope of economics, the theory of consumer behavior, analysis of production function and equilibrium of a producer, the price formation in different markets structures and the equilibrium of a firm and industry. In addition, the principles of factor pricing and commodity pricing as also the problems of investment and welfare economics have been Included.
4	S.Y.B.A. Economics S- 2, Macro Economics From: June 2014	On account of the growing influence and involvement of the State in economic fields, macroeconomics has become a major area of economic analysis in terms of theoretical, empirical as well as policy-making issues. Macroeconomics has an extensive, substantive as well as methodological content. It deals with the functioning of the economy as a whole, the Objective of the course is to familiarize the students the basic concept of Macro Economics and application. including how the economy's total output of goods and services and employment of resources is determined and what causes these totals to fluctuate. The Paper entitled Macro economics is designed to make an Undergraduate student aware of the basic theoretical framework underlying the field of macroeconomics.

5	T.Y. B.A. Economics General Paper III G.3 Economic Development & Planning (From June 2015)	The Study of Economic Development has gained importance because of staid interest of the developing countries in uplifting their economic conditions by restructuring their economics to acquire greater diversity, efficiency and equity in consonance with their priorities. While few success stories can be counted, many have grappled with chronic problems of narrow economic base, inefficiency and low standard of living. For this and other reasons, there have been many approaches to economic development. In recent times, besides hard core economic prescriptions to development, concern hitherto relegated to background, like education, health, sanitation and infrastructural development, have found place of pride in explaining the preference of various economies incorporated in this paper are devoted to the theories of economic development, approaches to economic development, social and institutional aspects of development, constraints on Development process, macroeconomic policies, roll of foreign capital and economic planning etc. in developing countries.
6	T.Y. B.A. Economics Special Paper III S.3 International Economics (From June 2015)	This course provides the students a thorough understanding and deep knowledge about the basic principles that tend to govern the free flow of trade in goods and services at the global level. The contents of the Paper spread over various modules, lay stress both on theory and applied nature of the subject that have registered rapid changes during the last decade. Besides this, the contents prepare the students to know the impact of free trade and tariffs on the different sectors of the economy as well as the macro level. The students would also be well trained about the rationale of recent changes in the Export Import policies of India. This paper has become relatively more relevant from the policy point of view under The present waves of globalization and liberalization both in the North and in the South.
7	T.Y. B.A. Economics Special Paper IV S.4 Public Finance (From June 2015)	The term 'Public Finance' has traditionally been applied to the package of those policies and operations which involve the use of tax and expenditure measures while budgetary policy is an important part of understand the basic problems of use of resources, distribution of Income ,etc. There are vast array of fiscal institutions –tax systems, expenditure programs budgetary procedures, stabilization instruments , debt issues, levels of government, etc., which Raise spectrum of issues arising from the operation of these institutions.

**Program outcomes for M.A (Economics)**

<b>Sr. No</b>	<b>Course</b>	<b>Outcome</b>
1	EC-1001 Micro Economic Analysis-I (SEM- I)	1.Ability to apply the concepts of micro economics such as demand, supply, revenue, cost, elasticity, etc. 2.Ability to analyze and demonstrate knowledge of the basic theories/laws in economics-law of demand, law of supply, production function, etc. 3.At the end of the course, the student should be able to evaluate microeconomic concepts, models and its use in real life situations.
2	EC-1002 Public Economics-I (SEM- I)	1.Ability to recognize, apply and analyze concepts and theories in public economics. 2.Ability to appraise and assess the theory of public economics in real life situations.
3	EC-1003 International Trade (SEM- I)	1.Ability to understand the concepts of international economics such as comparative cost, terms of trade, trade policies and trade agreements. 2.Ability to interpret and apply theory relating to understand international trade. 3.Ability to discuss and debate the effects of trade policy, trade agreements, exchange rate policies on the world economy/trade.
4	EC- 1004 Agricultural Economics (SEM- I)	1.Ability to analyze and evaluate the subject with reference to various aspects of agrarian economies. 2.Ability to develop an understanding of agriculture with its intricacies and imperfections and to be able to construct intellectual dialogue on the challenges of agriculture.
5	EC- 2001 Micro-Economic AnalysisII (SEM- II)	1.Ability to apply the concepts of micro economics such as demand, supply, revenue, cost, elasticity, etc. 2.Ability to compare and contrast various market structures and understand concept of equilibrium, price determination. 3.At the end of the course, the student should be able to evaluate microeconomic concepts, models and its use in real life situations.
6	EC-2002 Public Economics II (SEM- II)	1.Ability to understand, apply and analyze concepts-public debt, budget, fiscal policy in public economics. 2.Ability to interpret the theories relating to public economics in real life situations. 3.Ability to discuss and debate on the public finance and policies w. r. t. India.
7	EC-2003 International Finance (SEM- II)	1.Ability to understand and interpret the concepts such as Balance of Payments, Exchange Rates, Foreign Exchange Transactions, International capital flows, etc. 2.Ability to critically analyze the effects of deficit, exchange risk, roll of foreign capital on the world economy/trade. 3.Ability to discuss and debate on subjects related to international trade and finance w.r.t. the Indian Economy.

8	EC-2004 Labour Economics (SEM- II )	<p>1) Ability to analyze and evaluate the subject with reference to various aspects of Labour economics.</p> <p>2) Ability to develop an understanding of the labour with its intricacies and imperfections and to be able to Construct intellectual dialog on the challenges of labour w.r.t. the Indian Economy.</p>
9	EC-3001 Macro Economics-I (SEM- III )	<p>Macro economics or aggregative economics analyses and establishes the functional relationship between the large aggregates. The aggregate analysis has assumed such a great significance in recent times that a prior understanding of macroeconomic theoretical structure is considered essential for the proper comprehension of the different issues and policies. Macroeconomics is not only a scientific method of analysis; but also a body of empirical economic knowledge. The paper entitled “Macro Economic Analysis” equips the students at the Postgraduate level to understand systemic facts and latest theoretical developments for empirical analysis.</p>
10	EC-3002 Growth and Development – I (SEM- III )	<p>Growth and Development is one of the most important areas of economic exploration in the last 50-60 years. Although relatively recent in origin this subject occupies a significant position in economic theory and practice. India being a developing country, this subject becomes extremely relevant for both teachers and students. The syllabus of Semester III includes the evolution of growth models as well as important concepts such as poverty, inequality and population dynamics in the context of developing countries.</p>
11	EC-3003 Modern Banking (SEM- III )	<p>The course intends to make students aware about the changing scenario of the modern banking role, structure, performance and the current problems faced by the banking sector in India and also in the world. It also tries to throw light on the future prospects and role of modern banking sector at the global level. Students are supposed to study the current affairs and events happening in the money market and capital market at the national and international level.</p>
12	EC- 3004 Demography (SEM- III )	<p>The outcome of this paper is to make the students aware of the importance of population in economic development and the various theories that explain the growth of population in a country. The paper also enlightens the students on the quantitative and the qualitative aspects and characteristics of the population through various demographic techniques. In recent times, gender characteristics of the population have acquired importance and these have also been included in the framework of study. Migration and urbanization are the characteristics of structural change taking place in a society. Their study is essential to understand the dynamics of this change. The paper exposes the students to sources of population and related characteristics and also to the rationale, need and evolution of population policy.</p>

13	EC – 4001 Macro Economics II (SEM- IV)	Macro economics or aggregative economics analyses and establishes the functional relationship between the large aggregates. The aggregate analysis has assumed such a great significance in recent times that a prior understanding of macroeconomic theoretical structure is considered essential for the proper comprehension of the different issues and policies. Macroeconomics now is not only a scientific method of analysis; but also a body of empirical economic knowledge. The paper entitled “Macro Economics equips the students at the postgraduate level to understand systemic facts and latest theoretical developments for empirical analysis.
14	EC-4002 Growth and Development –II (SEM- IV)	Growth and Development is one of the most important areas of economic exploration in the last 50-60 years. Although relatively recent in origin this subject occupies a significant position in economic theory and practice. India being a developing country, this subject becomes extremely relevant for both teachers and students. The syllabus of Semester IV includes the practical aspects of the process of growth and development – including the role of agriculture and industry, external trade and resource mobilization and the role of the state and the markets.
15	EC-4003 Research Methodology (SEM- IV )	Students who complete their post graduation in economics are mentally equipped to pursue research in the same discipline. It is generally accepted that the research is nothing but the extension and application of knowledge in a certain specialized field. Therefore regular and external students who do their post graduation will be given an opportunity to get exposed to a few elements of social science research. Elementary knowledge of research methodology shall consolidate and deepen their understanding of various branches of Economics.
16	EC-4004 Rural Development (SEM- IV )	The course on Rural Development attempts to sensitize students about the dynamics of changes in the rural economy. It includes the study of problems faced by rural population and also includes the critical review of various schemes and projects that benefit the rural population. Emphasis may be laid on the study of rural development as an integral part of overall socioeconomic development. The treatment of topics shall be in the context of Indian economy and society.

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**dežlj x.kir nmk eljsdyklof.k; vlf.k foklu egfo | ky;]fuQMM**

**ejkBh foHkx**

**dyk 'k[k v/; ki u nří'V; s**

**vH; kl Øelph nří'Vs& dyk 'k[k**

1½ ejkBh ; k fo" k; kpk vH; kl dj.kk; k fo | k; kl LFoyi .ks ejkBh l kfgR; ] ejkBh Hk'kk vlf.k ejkBh l d'rh o l kfgR; izlkj ; kpk de' k% ifjp; d: u nsk

2½ ejkBh l kfgR; kl ađh oMM-e; hy vfhk: ph fuekz k dj .ks l kfgR; kps vdyu o vLokn ?ks kš ejkBh l kfgR; krhy fuoMd , dkkdps v/; ; u dj .ks

3½ l kfgR; kH; kl krm thoufo" k; d l et fodfl r dj .ks

4½ tkxfrdhdj .kr fofok {ks-kuk l keljs tk. ; kl kBh Hk'kd {kerk fodfl r dj .ks

5½ 0; fDrello fodkl kr Hk'kps eglo Li"V dj .ks

6½ oxoxG; k dky [kkrhy ejkBhrhy vfhkkr l kfgR; d'rhok l d'kj ?MMfo.ks l kfgR; fo" k; d vfhk: ph fuekz dj .ks

7½ l kfgR; kpk l veikrGhoj vH; kl dj. ; kph {kerk fodfl r dj .ks

8½ in0; nřj vH; kl dj. ; kph inř; kjh dj .ks

9½ ejkBh l kfgR; kpk , frgkfl d ijajps LFoy Klu d: u nsk

10½ fof' k'V dky [kMP; k ik' oBkehoj l kfgR; kelxhy ij .kk izlkp Klu d: u nsk

11½ vfkud ejkBh l kfgR; krhy fofok l kfgR; izlkj kpk ifjp; ok<fo.ks

12½ ueyY; k dykd'rh; k l mHkz l kfgR; ijajpk LFoy ifjp; d: u nsk

13½ 'fucak\* o ^iokl o.ku\* ; k l kfgR; izlkj kps rklod foopu dj .ks

14½ fo | k; kph okpu o y[ku {kerk fodfl r d: u R; kpk xđki jh{k.kkph vkoM fuekz k Ogkohj; kl kBh izđk dj .ks

15 l kfgR; kpsLo: i o iz kstu l etkou ?ks ks

16½ l kfgR; fufežhph ifdz k vlf.k Hk'kk l etkou ?ks ks

17½ l kfgR; vlf.k l ekt ; krhy ijLijl ađk l etkou ?ks ks

18½ l kfgR; izlkj kph l dYiuk l etkou ?ks ks

19½ oMM-e; hu eW; s l etkou ?ks ks

20½ Hk'kpsLo: i o dk; ] Hk'k; k vH; kl kps eglo] Hk'k; k vH; kl kph ied[ k vxs  
tk.ku ?ksks

21½ Hk'k Eg.kts dk; o frpsekuoh thoukrhy dk; Zo eglo tk.ku ?ksks

22½ oxoxGikk Hk'kvH; kl i) rhpsoxGi .k o eglo tk.ku ?ksks

23½ Loufufezhph ifdz k l etkou ?ksks

24½ okxfnz, kph jpuk o dk; ] l etkou ?ksks

25½ LoufoKku] Lofue l adYiuk vkf.k ejkBhph Lofue 0; oLFk tk.ku ?ksks

26½ ejkBhph : fie0; oLFk l etkou ?ksks

27½ okD; fol; kl o vFkZou; kl ; k Hk'ko&kfud l adYiuk ejkBhP; k l mHkz LFky ifjp; -

28½ , frgkl d Hk'kH; kl i) rhpso: i o eglo y{kr ?ksks

29½ Hk'kdykph l adYiuk tk.ku ?kou ejkBh Hk'k; k mRiUkpk vH; kl dj.k

30½ ejkBh Hk'kpk mRiUkdkG tk.ku ?kou rRdkyhu Hk'kd fLFk; rjpk vk<kok ?ksks

31½ VI; kVI; kus Hk'k Eg.ku ejkBhP; k okVpkyhpk , frgkl d vk<kok ?ksks

32½ l kkiukrhy Hk'kph Hk'fedk fofok Hk'kd vkfo"dkjps Lo: lk l etkou ?ksk; Hk'kd dSKY; kph {kerk fodl r  
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33½ Hk'kd dSKY; kps fofok vkfo"dkj vkf.k l adZk; es; kpk ijLij azk l etkou ?kskso mi; kstu dj.k

34½ ejkBhpk dk; ky; hu 0; kol kf; d dkedtkr Hk'kpsmi; kstu ] xjt Lo: lk ; k fo'ksh ekgrh d: u ?ksks

35½ dk; ky; hu 0; kol kf; d Hk'k 0; ogkjl kbh vko'; d y[ku dSKY; kps l aknu o mi; kstu dj.k



ok.kT; 'kqk v/;kiu nfi'V;s

vH;kl Øelph nfi'Vs& ok.kT; 'kqk

1 ok.kT; fo'k; kP; k fo|kF; kæk ejkBhP; k 0; ogkj {s-kph ekgrh nsk fofo/k {s-krhy Hk'kk 0; ogkj kps  
Lo: lk o xjt l etkou nsk

2 ; k 0; ogkj {s-krhy ejkBh Hk'kps LFku Lk'V dj.kso R; krhy ejkBhP; k iR; {k okijpk vH; kl dj.k

3 fofo/k {s-krhy ejkBhpk vH; kl dj.; kl k Bh i l kjek/; ekps Lo: lk o R; krhy Hk'k.k 0; ogkj l etkou  
nsk

4 i l kjek/; ekry fofo/k y[ku izkjkpk vH; kl o iR; {k y[ku

5 jkt Hk'kk Eg.ku ejkBhps LFku] dk; kzy; hu Hk'kps Lo: i] ejkBhrw y[ku djrkak ; skU; k vMp.kh]

dk; kzy; hu Hk'kph ras o dskY; § vFkdj.k o ok.kT; fo'k; ejkBhrw ifj.kedkjdfjR; k ekMrk ; kok  
; kl k Bh dskY; kph vko'; drk vkgs ejkBhr vktoj ; k fn'ks dskrs iz Ru >kys ; kph ekgrh  
fo|kF; kæk nsk vko'; d vkgs

6½ ejkBh Hk'kk] ejkBh l kfgR; vkf.k ejkBh l d r h ; kps v/; ; u dj.k

7½ l kfgR; fo'k; d vdyu] vkLokn vkf.k eW; ekiu {kerk fodfl r dj.k

8½ l kfgR; kH; kl k r w thoufo'k; d l et fodfl r dj.k

9½ ejkBh Hk'kph mi ; st ukRed dskY; sfodfl r dj.k

## foKku 'Hkqk v/;kiu mfi'V;s

### vH;kl Øelph mfi'Vs& foKku 'Hkqk

1½ fo |kf; kē/; sejkBh foKku l kfgR; kfo"K; h vkoM fuekZk dj.ks

2½ fo |kf; kē/; so&kfud tkf.kok fuekZk dj.ks

3½ fo |kf; kāk foKku m|kxkrhy fofok idkg] l dkh ; kpk ifjp; d: u nsk

4½ fo |kf; kē/; sy[ku okpu vkdyu vkf.k l Hkqk.k gh Hkqk"kd dSKY; vf/kdkf/kd fodfl r dj.ks

5½ Hkqk"kd dSKY; kps fofok vfo"dkj vkf.k id kjeK; es ; kP; k ijLij l cdkkpsKku fo |kf; kāk d: u nsk

6½ o&kfud dk; kŷ; hu 0; kol kf; d vkfn dkedtkr ejkBP; k gskkū; k oki jkph ekgrh nr i kfjHkqk"kd


l kkpH vkG[k fo |kf; kāk d: u nsk

7½ Hkqk"kk vkf.k l kfgR; vkf.k ijLij l cdkkph tk.kho d: u nsk

8½ ejkBh Hkqk"pk i kfjHkqk"kl kišk vkf.k 'syhl kišk fodkl fo |kf; kāk Kkr d: u nsk

9½ ejkBh Hkqk"ph mi ; ktukRed dSKY; sfodfl r dj.ks



  
(Dr. R.N. Bhavare)  
**Principal**  
Karmaveer Ganpat Dada More  
Arts, Commerce & Science College  
Niphad Dist. Nashik.

## Faculty of Commerce

### Programme outcomes for three years Degree course Bachelor of Commerce

<b>Department of Commerce</b>		After completing three years for Bachelors in Commerce program
<b>Programme outcomes</b>		<p>1. students would gain basic fundamentals of Commerce and Finance.</p> <p>2. The commerce curriculum offers a number of specializations and practical exposures which would equip the student to face the modern-day challenges in commerce and business.</p> <p>3. All inclusive outlook of the course offer a number of value based and job oriented courses. In administration &amp; costing courses beyond the introductory level, affective development will also progress to the valuing and organization levels.</p>
<b>Course Outcomes</b>		
Sr.No	Class & Course Title	Outcome
1	F.Y. B.Com. Compulsory Paper Subject Name -: Financial Accounting. Course Code -: 102	<p>1. To impart the knowledge of various accounting concepts</p> <p>2. To in-still the knowledge about accounting procedures, methods and techniques.</p> <p>3. To acquaint them with practical approach to accounts writing by using software package.</p>
2	F.Y. B.Com. Compulsory Paper Subject Name -: Business Economics (Micro) Course Code -: 103	<p>1. To expose Students of Commerce to basic micro economic concepts and inculcate an analytical approach to the subject matter.</p> <p>2. To stimulate the student interest by showing the relevance and use of various economic theories.</p> <p>3. To apply economic reasoning to problems of business.</p>
3	F.Y. B.Com. Optional Paper Subject Name -: Business Mathematics and Statistics Course Code -: 104 (A)	<p>1. To prepare for competitive examinations</p> <p>2. To understand the concept of Simple interest, compound interest and the concept of EMI.</p> <p>3. To understand the concept of shares and to calculate Dividend</p> <p>4. To understand the concept of population and sample.</p> <p>5. To use frequency distribution to make decision.</p> <p>6. To understand and to calculate various types of averages and variations.</p> <p>7. To understand the concept and application of profit and loss in business.</p> <p>8. To solve LPP to maximize the profit and to minimize the cost.</p> <p>9. To use correlation and regression analysis to estimate the relationship between two variables.</p> <p>10. To understand the concept and techniques of different types of index numbers.</p>

4	F.Y. B.Com. Optional Paper Subject Name -: Banking and Finance [Fundamentals of Banking] Course Code -: 105 – b.	<ol style="list-style-type: none"> <li>1. To acquaint the students with the fundamentals of banking.</li> <li>2. To develop the capability of students for knowing banking concepts and operations.</li> <li>3. To make the students aware of banking business and practices.</li> <li>4. To give thorough knowledge of banking operations.</li> <li>5. To enlighten the students regarding the new concepts introduced in the banking system.</li> </ol>
5	F.Y. B.Com. Optional Paper Subject Name -: Marketing and Salesmanship [Fundamentals of Marketing] Course Code -: 106 – c.	<ol style="list-style-type: none"> <li>1. To create awareness about market and marketing.</li> <li>2. To establish link between commerce/Business and marketing.</li> <li>3. To understand the basic concept of marketing.</li> <li>4. To understand marketing philosophy and generating ideas for marketing research.</li> <li>5. To know the relevance of marketing in modern competitive world.</li> <li>6. To develop an analytical ability to plan for various marketing strategy.</li> </ol>
6	F.Y.B.Com. Optional Paper Subject Name -: Business Environment & Entrepreneurship Course Code -: 106 – e.	<ol style="list-style-type: none"> <li>1. To make the students aware about the Business Environment.</li> <li>2. To create entrepreneurial awareness among students,</li> <li>3. To motivate students to make their mind set for taking up entrepreneurship as career</li> </ol>
7	F.Y.B.Com Commercial geaography Revised Syllabus (from June, 2013)	<ol style="list-style-type: none"> <li>1. To understand the scope and content of Commercial Geography in relation to spatial distribution of agriculture, forest resources and industrial production.</li> <li>2. To acquaint the students about dynamic aspects of Commercial Geography.</li> <li>3. To acquaint the students about dynamic nature of Industrial field in India.</li> <li>4. To make the students of commerce aware about the relationship between the geographical factors and economic activities</li> </ol>
8	S.Y. B.Com. Compulsory Paper Subject Name -: Business Communication. Course Code -: 201.	<ol style="list-style-type: none"> <li>1. To understand the concept, process and importance of communication.</li> <li>2. To develop awareness regarding new trends in business communication.</li> <li>3. To provide knowledge of various media of communication.</li> <li>4. To develop business communication skills through the application and exercises.</li> </ol>
9	S.Y. B.Com. Compulsory Paper Subject Name -: Corporate Accounting Course Code -: 202	<p>To enable the students to develop awareness about Corporate Accounting in conformity with the provisions of Companies Act and Accounting as per Indian Accounting Standards.</p> <ol style="list-style-type: none"> <li>1. To make aware the students about the conceptual aspect of corporate accounting</li> <li>2. To enable the students to develop skills for Computerized Accounting</li> <li>3. To enable the students to develop skills about accounting standards</li> </ol>

10	S.Y. B.Com. Compulsory Paper Subject Name -: Business Economics (Macro) Course Code -: 203	<ol style="list-style-type: none"> <li>1. The objective of the course is to familiarize the students the basic concept of Macro Economics and application.</li> <li>2. To Study the behaviour of the economy as a whole.</li> <li>3. To Study the relationship among broad aggregates.</li> </ol> <p>To apply economic reasoning to problems of the economy</p>
11	S.Y. B.Com. Compulsory Paper Subject Name -: Business Management Course Code -: 204	<ol style="list-style-type: none"> <li>1. To provide basic knowledge &amp; understanding about business management concept.</li> <li>2. To provide an understanding about various functions of management.</li> </ol>
12	S.Y. B.Com. Compulsory Paper Subject Name -: Elements of Company Law. Course Code -: 205	<ol style="list-style-type: none"> <li>1.To impart students with the knowledge of fundamentals of Company Law.</li> <li>2.To update the knowledge of provisions of the Companies Act of 2013.</li> <li>3.To apprise the students of new concepts involving in company law regime.</li> <li>4.To acquaint the students with the duties and responsibilities of Key Managerial Personnel.</li> <li>5.To impart students the provisions and procedures under company law</li> </ol>
13	S.Y. B.Com. Business Administration Special Paper I Subject Name -: Business Administration Course Code -: 206 – A.	<ol style="list-style-type: none"> <li>1. To provide basic knowledge about various forms of business organizations</li> <li>2. To acquaint the students about business environment and its implications thereon.</li> <li>3. To aware them with the recent trends in business</li> </ol>
14	S.Y. B.Com. Cost and Works Accounting Special Paper I Cost and Works Accounting. Course Code -: 206 – E.	<p>To Impart The Knowledge Of:</p> <ol style="list-style-type: none"> <li>1. Basic Cost concepts.</li> <li>2. Elements of cost.</li> <li>3. Ascertainment of Material and Labour Cost.</li> </ol>
15	T.Y. B.Com. Compulsory Paper Subject Name -: Business Regulatory Framework (Mercantile Law) Course Code -: 301.	<ol style="list-style-type: none"> <li>1. To acquaint students with the basic concepts, terms &amp; provisions of Mercantile and Business Laws.</li> <li>2. To develop the awareness among the students regarding these laws affecting business, trade and commerce.</li> </ol>
16	T.Y. B.Com. Compulsory Paper Subject Name -: Advanced Accounting. Course Code -: 302	<ol style="list-style-type: none"> <li>1.To impart the knowledge of various accounting concepts</li> <li>2.To in-still the knowledge about accounting procedures, methods and techniques.</li> <li>3.To acquaint them with practical approach to accounts writing by using software package.</li> </ol>
17	T.Y. B.Com. Compulsory Paper Subject Name -: Indian & Global Economic Development Course Code -: 303 (A)	<ol style="list-style-type: none"> <li>1.To expose students to a new approach to the study of the Indian Economy.</li> <li>2.To help the students in analyzing the present status of the Indian Economy.</li> <li>3.To enable students to understand the process of integration of the Indian Economy with other economics of the world.</li> <li>4.To acquaint students with the emerging issues in policies of India's foreign trade.</li> </ol>

18	T.Y. B.Com. Compulsory Paper Subject Name -: International Economics Course Code -: 303 (B)	1.To study the theories of International Trade. 2.To highlight the trends and challenges faced by nations in a challenging global environment.
19	T.Y. B.Com. Compulsory Paper Subject Name -: Auditing & Taxation Course Code -: 304	The Study of Various Components of this course will enable the students: 1. To acquaint themselves about the concept and principles of Auditing, Audit process, Assurance Standards, Tax Audit, and Audit of computerized Systems. 2. To get knowledge about preparation of Audit report. 3. To understand the basic concepts and to acquire knowledge about Computation of Income, Submission of Income Tax Return, Advance Tax, and Tax deducted at Source, Tax Collection Authorities under the Income Tax Act, 1961.
20	T.Y. B.Com. Business Administration Special Paper II Subject Name -: Business Administration Course Code -: 305 – a.	To acquaint the students with basic concepts & functions of HRD and nature of Marketing functions of a business enterprise.
21	T.Y. B.Com. Cost and Works Accounting Special Paper II Subject Name -: Cost and Works Accounting. Course Code -: 305 – e.	1. To provide Knowledge about the concepts and principles application of Overheads 2. To provide also understanding various methods of costing and their applications.
22	T.Y. B.Com. Business Administration Special Paper III Subject Name -: Business Administration Course Code -: 306 – a.	To acquaint the students with the basic concepts in finance and production functions of a business enterprise.
23	T.Y. B.Com. Cost and Works Accounting Special Paper III Subject Name -: Cost and Works Accounting. Course Code -: 306 – e.	1.To impart knowledge regarding costing techniques. 2 To provide training as regards concepts, procedures and legal Provisions of cost audit.

## M.Com Programme Outcomes

<b>Department of Commerce</b>	
<b>Programme Outcomes</b>	1.To acquaint a student with conventional as well as contemporary areas in the discipline of Commerce. 2.To enable the students for conducting business, accounting and auditing practices, role of regulatory bodies in corporate and financial sectors nature of various financial instruments.

**M.Com. Part I Semester I Compulsory Paper Subject Name :- Management Accounting Course Code :- 101.**

**Objective :-** The objective of the course is to enable students to acquire sound Knowledge of concepts, methods and techniques of management accounting and to make the students develop competence with their usage in managerial decision making and control.

**M.Com. Part I Semester II Compulsory Paper Subject Name :- Financial Analysis & Control. Course Code :- 201.**

**Objective :-** The objective of the course is to enable students to acquire sound knowledge of concepts, methods and techniques of management accounting and to make the students develop competence with their usage in managerial decision making and control.

**M.Com. Part I Semester II Optional Paper Subject Name :- Industrial Economics Course Code :- 202 - A.**

**Objectives:** 1) To study the basic concepts of Industrial Economics. 2) To study the significance and problems of Industrialization. 3) To study the impact of Industrialization on Indian Economy.

**M.Com. Part I Semester II Business Administration Special Paper III. Subject Title :- Business Ethics and Professional Values Course Code :- 213**

**M.Com. Part I Semester II Business Administration Special Paper IV. Subject Title :- Elements of Knowledge Management Course Code :- 214 N**

**M.Com. Part II Semester III Compulsory Paper Subject Name :- Business Finance. Course Code - : 301. (w.e.f. Academic Year: 2014-15)**

**Objective:** To enable students to acquire sound knowledge of concepts, nature and structure of business finance.

**M.Com. Part II Semester III Compulsory Paper Subject Name :- Research Methodology for Business. Course Code :- 302. (w.e.f. Academic Year: 2014-15) (Board of Studies in Business Practice)**

**Objectives:** 1. To acquaint the students with the areas of Business Research Activities. 2. To enhance capabilities of students to conduct the research in the field of business and social sciences. 3. To enable students, in developing the most appropriate methodology for their research studies. 4. To make them familiar with the art of using different research methods and techniques.

**M.Com. Part II Semester III Business Administration Special Paper V. Subject Title :- Human Resource Management Course Code :- 313 (w.e.f. Academic Year: 2014-15) Objectives:** 1. To acquaint the students with in-depth knowledge of HRM. 2. To inculcate among students various practices followed by HR managers. 3. To create understanding about recent trends in HRM

**M.Com. Part II Semester III Business Administration Special Paper VI. Subject Title :- Organizational Behaviour Course Code :- 314 (w.e.f. Academic Year: 2014-15)**

**Objectives:** 1. To make the students understand various concepts of organisation behaviour 2. To provide in depth knowledge about process of formation of group behaviour in an organization set up

**M.Com. Part II Semester IV Compulsory Paper Subject Name :- Capital Market and Financial Services. Course Code :- 401. (w.e.f. Academic Year: 2014-15)**

**Objective:** To enable students to acquire sound knowledge, concept and structure of capital market and financial services.


**M.Com. Part II Semester IV Compulsory Paper Subject Name :- Industrial Economic Environment. Course Code :- 402-A (w.e.f. Academic Year: 2014-15)**

**Objectives:** 1. To study the basic concepts of Industrial Finance. 2. To study the effects of New Economic Policy. 3. To study the impact of Labor reforms on Industries.

**M.Com. Part II Semester IV Business Administration Special Paper VII. Subject Title :- Recent Advances in Business Administration Course Code :- 413 (w.e.f. Academic Year: 2014-15)**

**Objectives:** 1. To familiarise the students with the recent advancements in business administration 2. To develop an understanding about tools and their application in the business.



  
(Dr. R.N. Bhavare)  
**Principal**  
Karmaveer Ganpat Dada More  
Arts, Commerce & Science College  
Niphad Dist. Nashik.



## Faculty of Science

### Programme Outcomes: B. Sc Chemistry

<b>Department of Chemistry</b>	After successful completion of three year degree program in Chemistry a student should be able to;
<b>Programme Outcomes</b>	<ol style="list-style-type: none"><li>1. Demonstrate, solve and an understanding of major concepts in all Disciplines of chemistry.</li><li>2. Solve the problem and also think methodically, independently and draw a logical conclusion.</li><li>3. Employ critical thinking and the scientific knowledge to design, carry out, record and analyze the results of chemical reactions.</li><li>4. Create an awareness of the impact of chemistry on the environment, society, and development outside the scientific community.</li><li>5. Find out the green route for chemical reaction for sustainable development.</li><li>6. To inculcate the scientific temperament in the students and outside the scientific community.</li><li>7. Use modern techniques, decent equipments and Chemistry software's</li></ol>
<b>Course Outcomes F.Y.B.Sc Chemistry Sem-I</b>	
<b>Course Title</b>	<b>Outcomes</b>
CH- 101: Physical Chemistry	After completing the course work learner will be acquired with knowledge of chemical energetics, Chemical equilibrium and ionic equilibria.
CH- 102: Organic Chemistry	Students will learn Fundamentals of organic chemistry, stereochemistry (Conformations, configurations and nomenclatures) and functional group approach for aliphatic hydrocarbons.
Lab Course CH 103	<ol style="list-style-type: none"><li>1. The practical course is in relevance to the theory courses to improve the Understanding of the concepts.</li><li>2. It would help in development of practical skills of the students.</li><li>3. Use of microscale techniques wherever required</li></ol>
CH- 201: Inorganic Chemistry	Students will learn quantum mechanical approach to atomic structure, Periodicity of elements, various theories for chemical bonding.
CH-202: Analytical Chemistry	Students will know about basics of analytical chemistry, some techniques of analysis and able to do calculations essential for analysis.
Lab Course CH-203	<ol style="list-style-type: none"><li>1.The practical course is in relevance to the theory courses to improve the Understanding of the concepts.</li><li>2. It would help in development of practical skills of the students.</li><li>3. Use of microscale techniques wherever required.</li></ol>

**Course Outcomes B. Sc Chemistry Sem-III**

<b>Course Title</b>	<b>Outcomes</b>
CH-331 Physical Chemistry	After completion of these courses students should be able to; 1. Write an expression for rate constant K for third order reaction 2. Solve the numerical problems based on Rate constant 3. Understand the term specific volume, molar volume and molar refraction 4. Know the meaning of phase, component and degree of freedom 5. Derive the expression for rotational spectra for the transition from J to J+1
CH-332 Inorganic Chemistry	1. Know the meaning of various terms involved in co- ordination chemistry 2. To understand Werner's formulation of complexes and identify the types of valences 3. Know the limitations of VBT 4. Know the shapes of d-orbital's and degeneracy of d- orbital's 5. Draw the geometrical and optical isomerism of complexes
CH-333 Organic Chemistry	1. Define organic acids and bases. 2. Distinguish between geometrical and optical isomerism. 3. Discuss kinetics, mechanism and stereochemistry of SN1 and SN2 reactions. 4. Compare between E1 and E2 reactions. 5. Understand the evidences, reactivity and mechanism of various elimination and substitution reactions.
CH-334 Analytical Chemistry	1. Know the principles of common ion effect and solubility product. 2. Study the methods of thermo-gravimetric analysis. 3. Understand the principles of Spectro-photometric analysis and properties of electromagnetic radiations. 4. Study the Voltammetry and Polarography as an analytical tool. 5. Measure the absorbance of atoms by AAS.
CH-335 Industrial Chemistry	1. Know the importance of chemical industry. 2. Classify various insecticides. 3. Study the nutritive aspects of food constituents. 4. Understand the characteristics of some food starches. 5. Study the manufacture of cement, dyes, Glass, Soap and Detergents by modern methods.
CH-336 Agriculture Chemistry	1. Know the role of agriculture chemistry and its potential 2. Understand the basic concept of soil, properties of soil & its classification on the basis of pH. 3. Know the different plant nutrients, their functions and deficiency symptoms. 4. Identify the problematic soil and recommend a method for their reclamation. 5. Have the knowledge of various pesticides, insecticides, fungicides and herbicides.

**Course Outcomes B. Sc Chemistry Sem-IV**

<b>Course Title</b>	<b>Outcomes</b>
CH-341 Physical Chemistry	<ol style="list-style-type: none"><li>1. Understand Mechanics of system of particles.</li><li>2. Know the Redox reaction.</li><li>3. Study the Crystal Field Theory.</li><li>4. Solve the cell reaction and calculate EMF.</li><li>5. Calculate Interplaner distance.</li><li>6. Understand De-Broglie hypothesis and Uncertainty principle</li><li>7. Derive Schrodinger's time dependent and independent equations</li></ol>
CH-342 Inorganic Chemistry	<ol style="list-style-type: none"><li>1. Study the electronic configuration of lanthanides and actinides.</li><li>2. Get knowledge of Crystalline solid.</li><li>3. Understand different operation in stoichiometric molecule.</li><li>4. Study the Bio-inorganic chemistry.</li><li>5. Understand the p-type semiconductor and n-type semiconductor.</li></ol>
CH-343 Organic Chemistry	<ol style="list-style-type: none"><li>1. To study UV, IR and NMR spectroscopy.</li><li>2. Discuss different types of rearrangement reactions.</li><li>3. Determine structure of compound by spectroscopic methods.</li><li>4. Understand the difference between carbocation and carbanion.</li><li>5. To study alkaloids, Ephedrine, citral molecule with their properties and application.</li></ol>
CH-344 Analytical Chemistry	<ol style="list-style-type: none"><li>1. Know the different analytical techniques.</li><li>2. To understand different types of separation techniques.</li><li>3. To study principle, construction and working of GC and HPLC.</li><li>4. To give an extended knowledge about chromatographic techniques used for separation of amino acids.</li><li>5. Discuss the problem based on distribution coefficient and extraction techniques</li></ol>
CH-345 Industrial Chemistry	<ol style="list-style-type: none"><li>1. Know the various pharmaceutical drugs, their application and synthesis.</li><li>2. To study the waste management.</li><li>3. To understand the function of dyes, paints and pigments.</li><li>4. To study the various type of surfactants.</li><li>5. To know about molasses and bagasse.</li><li>6. To study the different types of polymer.</li></ol>
CH-346(E) Dairy Chemistry	<ol style="list-style-type: none"><li>1. Know the market of milk in different breeds.</li><li>2. Understand the basic principle of sterilization, homogenization, and standardization of milk.</li><li>3. Study the flow sheet diagram of shrikhand powder, whey powder, and ice-cream.</li><li>4. Study the different nutrient value in milk.</li></ol>

CH-347 Physical chemistry practical's	<ol style="list-style-type: none"> <li>1. Calculate molar and normal solution of various concentrations.</li> <li>2. Determine specific rotations and percentage of to optically active substances by polarimetrically.</li> <li>3. Study the energy of activation and second order reaction.</li> <li>4. Study the stability of complex ion and standard free energy change and equilibrium constant by potentiometry.</li> <li>5. Find out the acidity, Basicity and PKa Value on pH meter.</li> </ol>
CH-348 Inorganic Chemistry Practical's	<ol style="list-style-type: none"> <li>1. Study the gravimetric and volumetric analysis of ores and alloy.</li> <li>2. Prepare a various inorganic complexes and determine its % purity.</li> <li>3. To study binary mixture with removal of borate and phosphate.</li> <li>4. To understand the chromatographic techniques</li> </ol>
CH-349 Organic Chemistry Practical's	<ol style="list-style-type: none"> <li>1. Perform the Binary mixtures.</li> <li>2. Preparation of organic compounds, their purifications and run TLC.</li> <li>3. Determination of physical constant: Melting point, Boiling point.</li> <li>4. Different separation techniques.</li> </ol>

**Programme Outcomes: B.Sc Zoology**

<b>Department of Zoology</b>	After successful completion student should be able to;
<b>Programme Outcomes</b>	<ol style="list-style-type: none"> <li>1. Demonstrate, solve and an understanding of major concepts in all disciplines of Zoology.</li> <li>2. Solve the problem and also think methodically, independently and draw a logical conclusion.</li> <li>3. Understand the evolution, history of phylum.</li> <li>4. Create an awareness of the impact of Zoology on the environment, society, and development outside the scientific community.</li> <li>5. To study and understand the classification of whole phyla includes in Non chordates with the help of charts/models/pictures.</li> <li>6. To inculcate the scientific temperament in the students and outside the scientific community.</li> <li>7. Use modern techniques, decent equipments and Zoology software's</li> </ol>
<b>Course Outcomes F.Y.B. Sc Zoology Sem-I</b>	
<b>Title of Course</b>	<b>Outcomes</b>
ZO-111 Animal Diversity I	<ol style="list-style-type: none"> <li>1.The student will be able to understand classify and identify the diversity of animals.</li> <li>2. The student understands the importance of classification of animals and classifies them effectively using the six levels of classification.</li> <li>3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.</li> </ol>
ZO 112 -Animal Ecology	<ol style="list-style-type: none"> <li>1.The learners will be able to identify and critically evaluate their own beliefs, values and actions in relation to professional and societal standards of ethics and its impact on ecosystem and biosphere due to the dynamics in population.</li> <li>2.To understand anticipate, analyse and evaluate natural resource issues and act on a lifestyle that conserves nature.</li> <li>3. The Learner understands and appreciates the diversity of ecosystems and applies beyond the syllabi to understand the local lifestyle and problems of the community.</li> <li>4. The learner will be able to link the intricacies of food chains, food webs and link it with human life for its betterment and for non-exploitation of the biotic and abiotic components.</li> <li>5.The working in nature to save environment will help development of leadership skills to promote betterment of environment.</li> </ol>
<b>Course Outcomes F.Y.B. Sc Zoology Sem-II</b>	
<b>Title of Course</b>	<b>Outcomes</b>
ZO-121 Animal Diversity II	<ol style="list-style-type: none"> <li>1.The student will be able to understand classify and identify the diversity of animals.</li> <li>2. The student understands the importance of classification of animals and classifies them effectively using the six levels of classification.</li> <li>3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.</li> </ol>

ZO-122 Cell Biology	<p>1.The learner will understand the importance of cell as a structural and functional unit of life.</p> <p>2.The learner understands and compares between the prokaryotic and eukaryotic system and extrapolates the life to the aspect of development.</p> <p>3. The dynamism of bio membranes indicates the dynamism of life. Its working mechanism and precision are responsible for our performance in life.</p> <p>4. The cellular mechanisms and its functioning depends on endo-membranes and structures. They are best studied with microscopy.</p>
<b>Course Outcomes B. Sc Zoology Sem-III</b>	
<b>Title of Course</b>	<b>Outcomes</b>
ZY-331 Animal Systematic and Diversity- V	<p>After completion of these courses students should be able to;</p> <ol style="list-style-type: none"> <li>1. Understand the evolution, history of phylum.</li> <li>2. Understand about the Non Chordate animals.</li> <li>3.To study the external as well as internal characters of non chordates.</li> <li>4. To study the distinguishing characters of non chordates.</li> <li>5 Understand the economical importance of Molluscs</li> <li>6. Understand the various internal systems like Digestive system, nervous system with the help of charts.</li> <li>7. Understand the functions of Gemmules and spicules.</li> <li>8. Understand the economical importance of Molluscan shells.</li> </ol>
ZY-332 Mammalian Histology	<ol style="list-style-type: none"> <li>1. Understand the terms Histology and Physiology</li> <li>2. Understand the cell, tissue, organ, system and organisms.</li> <li>3. Study the derivatives of skin- horns, nails, hairs.</li> <li>4. Study and understand the terms- acidosis, alkalosis, asphexia, hypoxia, anoxia and cyanosis.</li> </ol>
ZY- 333 Biological Chemistry	<ol style="list-style-type: none"> <li>1. Understand about the agencies responsible for Production of various products using biochemistry.</li> <li>2. Understand the term pH, Buffer.</li> <li>3. Understand the structure and function of carbohydrate, amino acids, proteins, and lipids.</li> <li>4. Understand the concept Enzymes and also Vitamins and minerals.</li> <li>5. Understand the Principle role of Vitamins in metabolism and Deficiency diseases</li> </ol>
ZY-334 Environmental Biology & Toxicology	<ol style="list-style-type: none"> <li>1.Know the biotic and abiotic components of ecosystem.</li> <li>2.Food chain &amp; food web in ecosystem.</li> <li>3.Understand diversity among various groups of animal kingdom.</li> <li>4.Understand Animal community &amp; ecological adaptation in animals.</li> <li>5. Scope , importance and management of biodiversity</li> </ol>

ZY-335 Parasitology	<ol style="list-style-type: none"> <li>1.To study and understand the scope and branches of Medical Zoology.</li> <li>2. To aware the students for various parasites and diseases which spreads in human with the help of study of host-parasite relationship.</li> <li>3. To increase awareness for the health in students.</li> <li>4. Understand the various disease causing vectors like Mosquitoes.</li> <li>5. To aware about the typhoid, cholera likes disease.</li> <li>6. Understand the importance of medical diagnostic and also understand the term forensic Entomology</li> </ol>
<b>Course Outcomes B. Sc Zoology Sem-IV</b>	
<b>Title of Course</b>	<b>Outcomes</b>
ZY-341 Biological Techniques	<ol style="list-style-type: none"> <li>1.Understand the various Applications of Biotechnology.</li> <li>2. Study and Understand the Hybridoma technology as well as Enzyme biotechnology.</li> <li>3. Study and understand the DNA Recombinant technology.</li> <li>4. Understand the industrial and environmental biotechnology.</li> <li>5. Study and understand the Stem cell biotechnology.</li> <li>6. Understand the Scope and Significance of Biotechnology.</li> </ol>
ZY-342 Mammalian Physiology and Endocrinology	<ol style="list-style-type: none"> <li>1.Understand the Importance of physiology and branches of it.</li> <li>2.Understand the terms-Osmosis, diffusion, pH and Buffer.</li> <li>3.Understand the Digestion and Excretion process, by studying the Organs of it</li> <li>4.Understand the process of Metabolism.</li> <li>5.Understand the term Detoxification.</li> <li>6.Understand the Circulatory system and Lymphatic system.</li> <li>7.Study the nervous system.</li> </ol>
ZY-343 Genetics and Molecular Biology	<ol style="list-style-type: none"> <li>1.Understand the Molecular biology and molecular biology.</li> <li>2.Understand the cell divisions and types of mutation.</li> <li>3.Understand the structure and function of the cells.</li> <li>4.Understand the term cell signalling.</li> <li>5.Aware the students for Cancer.</li> <li>6.Understand the Tools and Techniques in Molecular Biology.</li> <li>7.Understand the term ELISA technique and DNA finger printing.</li> </ol>
ZY-344 Organic Evolution	<ol style="list-style-type: none"> <li>1. To understand Origin of life with respect to prokaryotic and eukaryotic cells.</li> <li>2.Understand the evidences of organic evolution by anatomical embryological list, paleontological, physiological, genetics and molecular biology evidences.</li> <li>3.Understand theories of organic evolution, isolation, speciation.</li> <li>4.Understand geological time scale, methods and classification of animal distribution and factors affecting animal distribution.</li> </ol>
ZY-345 General Embryology	<ol style="list-style-type: none"> <li>1.Understand the terms: Gametogenesis, Fertilization and early development.</li> <li>2.Understand the Morphogenesis and Organogenesis in animals.</li> <li>3.Understand the Aging, Apoptosis and Senescence.</li> </ol>

### Programme Outcomes: B. Sc Mathematics

<b>Department of Mathematics</b>	After successful completion student should be able to;
<b>Programme Outcomes</b>	<ol style="list-style-type: none"> <li>1. Be prepared to use Mathematics, not only in the discipline of Mathematics, but also in other disciplines and in their future endeavors.</li> <li>2. Recognize what constitutes mathematical thinking, including the ability to produce and judge the validity of rigorous mathematical arguments.</li> <li>3. Develop the skills necessary to formulate and understand proofs and to provide justification.</li> <li>4. Think critically and communicate clearly mathematical concepts and solutions to real-world problems.</li> <li>5. Develop an understanding of the precise language of Mathematics, and be able to integrate mathematical arguments with their critical thinking skills.</li> <li>6. The student develops theoretical, applied and computational skills. The student gains confidence in proving theorems and solving problems.</li> </ol>
<b>Course Outcomes F.Y.B.Sc Mathematics Sem I</b>	
<b>Course Title</b>	<b>Outcomes</b>
Algebra	<p>After completing this course student will be able to</p> <ol style="list-style-type: none"> <li>1. Solve various problems on properties of integers and use the basic concepts of divisibility, congruence and their applications in basic algebra.</li> <li>2. Apply factor theorem, remainder theorem to solve problems on polynomials and by using given relations between roots he will find the roots of polynomials.</li> </ol>
Calculus I	<p>After completing this course student will be able to</p> <ol style="list-style-type: none"> <li>1. Students will be familiar with the techniques of integration and differentiation of function with real variables</li> <li>2. Identify and apply the intermediate value thm, Mean value theorem and L'Hospital's rule</li> <li>3. Verify the values of limit of a function at a point using the definition of a limit</li> </ol>
<b>Course Outcomes F.Y.B.Sc Mathematics Sem II</b>	
Analytical Geometry	<p>After completing this course student will be able to</p> <ol style="list-style-type: none"> <li>1. Solve the problems of lines in three dimension, planes, spheres, and cylinders and how geometry is related to algebra by using their algebraic equations.</li> <li>2. After studying this course, students should be able to understand geometrical terminology for angle, triangle, quadrilaterals and circles.</li> </ol>
Calculus II	<p>After completing this course student will be able to</p> <ol style="list-style-type: none"> <li>1. Identify types of differential equations and solve differential equations such as Exact, homogeneous, non-homogeneous, and linear and Bernoulli differential equations etc.</li> <li>2. Identify and apply the function properties of real number system such as the completeness property.</li> <li>3. Students will be familiar with the techniques of integration and differentiation of function with real variables.</li> </ol>



**S.Y.B.Sc Mathematics Sem-I**

<b>Course Title</b>	<b>Outcomes</b>
Multivariable Calculus I	After completing the course, students will be able to- 1. Students learn analysis of multivariable functions, continuity, and differentiability. 2. learn the concepts of multiple integrals and their Application to area and volumes
Laplace Transforms and Fourier Series	After completing this course student will be able to 1. Learn the methods and properties of Laplace transform and Inverse Laplace Transform, apply them to solve Linear Differential equations. 2. Apply the fundamental concepts of Fourier series, Fourier Sine series, Fourier Cosine series to find series representation of irrational numbers.

**S.Y.B.Sc Mathematics Sem-II**

<b>Course Title</b>	<b>Outcomes</b>
Linear Algebra	After completing this course student will be able to 1. Use the concept of basis and dimension of vector spaces linear dependence and linear independence, to solve problems. 2. Use the concept of inner product spaces to find norm of vectors, distance between vectors, check the orthogonality of vectors, to find the orthogonal and orthonormal basis. 3. Apply the properties of linear transformations to linearity of transformations, kernel and rank of linear transformations, inverse transformations to solve the problems of matrix transformations, change of basis.
Numerical Method & its Application	After completing this course student will be able to 1. Solve the equation by location of roots, Regula Falsi theorem, Newton Raphson method, Gauss seidel method. 2. Know the fundamental theorem of difference Calculus. 3. Solve the Numerical Integration. 4. Understand the Numerical solution of first order ODE by Euler's method, Modified Euler's method & Runge -Kutta method.

<b>B.Sc Mathematics Sem-III</b>	
<b>Course Title</b>	<b>Outcomes</b>
Metric Spaces	After completing this course student will be able to 1. Learn the basic abstract ideas of analysis 2. Learn the basic ideas open sets, closed sets, limit point, isolated points, boundary points, subspace, product metric spaces and apply them to study the nature of sets. 3. Learn the theorems on completeness, compactness, connectedness and use them to solve the problems. identify the continuity of a function which is defined on metric spaces, at a given point and identify the set of points on which a function is continuous by using different theorems.
Real Analysis-I	After completing the course, students will be able to 1. know sequence and series of real numbers and their convergence and divergence.
Group Theory	After completing the course, students will be able to- 1. Identify the various algebraic structures with their corresponding binary operations. 2. generalize the groups on the basis of their orders, elements, order of elements and group relations 3. Compare two groups of same orders on the basis of isomorphism Criteria. 4. Compute the possible subgroups of given group of specific orders and will recognize them.
Ordinary Differential Equations	On satisfying the requirements of this course, students will have the knowledge and skills to: Solve linear differential equations with constant coefficients, non-homogeneous differential equations, system of first order equations, solution of differential equations by Power series method
Operations Research	After completing the course, students will be able to- 1. Formulate and model a LPP from a word problem and solve them graphically in 2-D 2. Modify a primal problem and use the LPP to identify the new solution 3. Understand basic notions like feasibility, infeasibility, basic solutions, unbounded solutions etc.
Lattice Theory	After Completion of this course students will be able to 1. Know the basic information of order sets, its example, diagram & maps between ordered sets. 2. Study lattice and complete lattice. 3. Understand the modular, distributive and Boolean lattice
<b>B.Sc Mathematics Sem-IV</b>	
<b>Title of Course</b>	<b>Outcomes</b>
Complex Analysis	On satisfying the requirements of this course, students will have the knowledge and skills to: 1. solve problems on basic concepts of modulus, argument of a complex number, deMoivre's theorem and use them to find roots of an algebraic equation. 2. Define continuity and differentiability for complex functions 3. Prove the Cauchy-Riemann equations and apply them to

	<p>complex functions in order to determine whether a given continuous function is complex differentiable,</p> <p>4. Evaluate integrals along a path - directly from the definition and also via the Fundamental Theorem of Contour Integration and Cauchy's Theorem,</p> <p>5. Compute the Taylor and Laurent expansions of simple functions, determining the nature of the singularities and calculating residues,</p> <p>6. Prove the Cauchy Residue Theorem and use it to evaluate integrals.</p>
Real Analysis-II	<p>On satisfying the requirements of this course, students will have the knowledge and skills to: Know convergence of sequence and series of functions, Riemann integrals, Improper integrals and its applications,</p>
Ring Theory	<p>After completing the course, students will able to-</p> <ol style="list-style-type: none"> <li>1. Assess properties implied by the definitions of rings</li> <li>2. Use various canonical types of rings</li> <li>3. Analyze and demonstrate examples of ideals and quotient rings</li> <li>4. Use the concept of isomorphism and homomorphism for rings</li> </ol>
Partial Differential Equations	<p>On satisfying the requirements of this course, students will have the knowledge and skills to:</p> <ol style="list-style-type: none"> <li>1. Form the partial differential equations and Solve the problems on partial differential equations.</li> <li>2. Solve the problems on first order and higher degree partial differential equations and its applications.</li> </ol>
Optimization Techniques	<p>After completing this course students will have the knowledge and skills to:</p> <ol style="list-style-type: none"> <li>1. Solve the project management related problems by using the concepts of CPM, PERT so as to findout the project completion time.</li> <li>2. Fond the optimal solutions of Game theory problems, Optimal solution of two person zero sum game, Solution of mixed strategy games, graphical solution of games, linear programming solution of game.</li> <li>3. Solve the problems on Replacement policy after failure , how to process the n jobs on two machines or three machines in minimum time so that the machines remain idle for short time.</li> <li>4. Solve the optimization unconstrained the optimization problems and constrained optimization problems of multivariable functions.</li> </ol>
Computational Geometry	<p>After completing the course, students will able to-</p> <ol style="list-style-type: none"> <li>1. Design, analyze and develop algorithm and method for solving geometric problems efficiently</li> <li>2. Assess theoretical and practical problems that involves geometry</li> <li>3. Generalize basic notions of reflection, rotation, projection with real life examples</li> </ol>

**Course Outcomes F.Y.B.Sc & S.Y.B.Sc Physics**

<b>F.Y.B.Sc Physics Sem -I</b>	
<b>Course Title</b>	<b>Course Outcomes</b>
<p><b>Mechanics and Properties of Matter (PHY-111)</b></p>	<p>On successful completion of this course students will be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Demonstrate an understanding of Newton's laws and applying them in calculations of the motion of simple systems.</li> <li>2. Use the free body diagrams to analyse the forces on the object.</li> <li>3. Understand the concepts of energy, work, power, the concepts of conservation of energy and be able to perform calculations using them.</li> <li>4. Understand the concepts of elasticity and be able to perform calculations using them.</li> <li>5. Understand the concepts of surface tension and viscosity and be able to perform calculations using them.</li> <li>6. Use of Bernoulli's theorem in real life problems.</li> <li>7. Demonstrate quantitative problem solving skills in all the topics covered.</li> </ol>
<p><b>Physics Principles Applications (PHY-112)</b></p>	<p>On successful completion of this course students will be able to do the following:</p> <ol style="list-style-type: none"> <li>1. To understand the general structure of atom, spectrum of hydrogen atom.</li> <li>2. To understand the atomic excitation and LASER principles.</li> <li>3. To understand the bonding mechanism and its different types.</li> <li>4. To demonstrate an understanding of electromagnetic waves and its spectrum.</li> <li>5. Understand the types and sources of electromagnetic waves and applications.</li> <li>6. To demonstrate quantitative problem solving skills in all the topics covered.</li> </ol>
<p><b>Physics Laboratory-IA (PHY-113)</b></p>	<p>After successfully completing this laboratory course, the students will be able to</p> <ol style="list-style-type: none"> <li>1. Acquire technical and manipulative skills in using laboratory equipment, tools, and materials.</li> <li>2. Demonstrate an ability to collect data through observation and/or experimentation and interpreting data.</li> <li>3. Demonstrate an understanding of laboratory procedures including safety, and scientific methods.</li> <li>4. Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena.</li> <li>5. Acquire the complementary skills of collaborative learning and teamwork in laboratory settings.</li> </ol>

<b>F.Y.B.Sc Physics Sem -II</b>	
<b>Course Title</b>	<b>Outcomes</b>
Heat and Thermodynamics (PHY-121)	<p>After successfully completing this course, the student will be able to</p> <ol style="list-style-type: none"> <li>1. Describe the properties of and relationships between the thermodynamic properties of a pure substance.</li> <li>2. Describe the ideal gas equation and its limitations.</li> <li>3. Describe the real gas equation.</li> <li>4. Apply the laws of thermodynamics to formulate the relations necessary to analyze a thermodynamic process.</li> <li>5. Analyse the heat engines and calculate thermal efficiency.</li> <li>6. Analyze the refrigerators, heat pumps and calculate coefficient of performance.</li> <li>7. Understand property 'entropy' and derive some thermodynamical relations using entropy concept.</li> <li>8. Understand the types of thermometers and their usage.</li> </ol>
Electricity and Magnetism (PHY-122)	<p>On successful completion of this course students will be able to do the following:</p> <ol style="list-style-type: none"> <li>1. To understand the concept of the electric force, electric field and electric potential for stationary charges.</li> <li>2. Able to calculate electrostatic field and potential of charge distributions using Coulomb's law and Gauss's law.</li> <li>3. To understand the dielectric phenomenon and effect of electric field on dielectric.</li> <li>4. To Study magnetic field for steady currents using Biot-Savart and Ampere's Circuital laws.</li> <li>5. To study magnetic materials and its properties.</li> <li>6. Demonstrate quantitative problem solving skills in all the topics covered.</li> </ol>
Physics Laboratory-IB (PHY-123 )	<p>After successfully completing this laboratory course, the students will be able to</p> <ol style="list-style-type: none"> <li>1. Acquire technical and manipulative skills in using laboratory equipment, tools, and materials.</li> <li>2. Demonstrate an ability to collect data through observation and/or experimentation and interpreting data.</li> <li>3. Demonstrate an understanding of laboratory procedures including safety, and scientific methods.</li> <li>4. Demonstrate a deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena.</li> <li>5. Acquire the complementary skills of collaborative learning and teamwork in laboratory settings.</li> </ol>

<b>S.Y.B.Sc Physics Sem-I</b>	
<b>Course Title</b>	<b>Outcomes</b>
Mathematical Methods in Physics (PH211)	<p>After the completion of this course students will be able to</p> <ol style="list-style-type: none"> <li>1.Understand the complex algebra useful in physics courses</li> <li>2.Understand the concept of partial differentiation.</li> <li>3.Understand the role of partial differential equations in physics</li> <li>4.Understand vector algebra useful in mathematics and physics</li> <li>5.Understand the singular points of differential equation.</li> </ol>
Electronics (PH212)	<p>On successful completion of this course the students will be able to</p> <ol style="list-style-type: none"> <li>1.Apply laws of electrical circuits to different circuits.</li> <li>2.Understand the relations in electricity</li> <li>3.Understand the properties and working of transistors.</li> <li>4.Understand the functions of operational amplifiers.</li> <li>5.Design circuits using transistors and operational amplifiers.</li> <li>6.Understand the Boolean algebra and logic circuits.</li> </ol>
<b>S.Y.B.Sc Physics Sem-II</b>	
<b>Course Title</b>	<b>Outcomes</b>
Oscillations, Waves and Sound (PH221)	<p>On completion of this course, Students will be able to</p> <ol style="list-style-type: none"> <li>1.Understand the physics and mathematics of oscillations. Solve the equations of motion for simple harmonic, damped, and forced oscillators.</li> <li>2.Formulate these equations and understand their physical content in a variety of applications,</li> <li>3.Describe oscillatory motion with graphs and equations, and use these descriptions to solve problems of oscillatory motion.</li> <li>4.Explain oscillation in terms of energy exchange, giving various examples.</li> <li>5.Solve problems relating to undamped, damped and force oscillators and superposition of oscillations.</li> <li>6.Understand the mathematical description of travelling and standing waves.</li> <li>7.Recognise the one-dimensional classical wave equation and solutions to it.</li> <li>8.Calculate the phase velocity of a travelling wave.</li> <li>9.Explain the Doppler effect, and predict in qualitative terms the frequency change that will occur for a stationary and a moving observer.</li> <li>10.Define the decibel scale qualitatively, and give examples of sounds at various levels.</li> <li>11.Explain in qualitative terms how frequency, amplitude, and wave shape affect the pitch, intensity, and quality of tones produced by musical instruments</li> </ol>

<p style="text-align: center;">Optics (PH222)</p>	<p>This course will enable Students to:</p> <ol style="list-style-type: none"> <li>1.acquire the basic concepts of wave optics</li> <li>2.describe how light can constructively and destructively interfere</li> <li>3.explain why a light beam spreads out after passing through an aperture</li> <li>4.summarize the polarization characteristics of electromagnetic waves</li> <li>5.appreciate the operation of many modern optical devices that utilize wave optics</li> <li>6.Understand optical phenomena such as polarisation, birefringence, interference and diffraction in terms of the wave model.</li> <li>7.analyse simple examples of interference and diffraction phenomena.</li> <li>8.be familiar with a range of equipment used in modern optics.</li> </ol>
<p style="text-align: center;">Physics Practical (PH223)</p>	<p>After completing this practical course students will be able to</p> <ol style="list-style-type: none"> <li>1.Use various instruments and equipment.</li> <li>2.Design experiments to test a hypothesis and/or determine the value of an unknown quantity.</li> <li>3.Investigate the theoretical background to an experiment.</li> <li>4.Set up experimental equipment to implement an experimental approach.</li> <li>5.Analyse data, plot appropriate graphs and reach conclusions from your data analysis.</li> <li>6.Work in a group to plan, implement and report on a project/experiment.</li> <li>7. Keep a well-maintained and instructive laboratory logbook.</li> </ol>

**Programme Outcomes: B. Sc Microbiology**

<b>Department of Microbiology</b>	After successful completion of three year degree program in Microbiology a student should be able to;
<b>Programme Outcomes</b>	<ol style="list-style-type: none"> <li>1. Increase knowledge and interest in the pure microbial sciences</li> <li>2. Introduce the concepts of application and research in Microbiology</li> <li>3. Gain practical knowledge through industrial visits, to blood bank, projects.etc</li> <li>4. Inculcate sense of scientific responsibilities, social and environment awareness by Microbiological view.</li> <li>5. Give practical knowledge and vision of microbial use in everyday life.</li> <li>6. help students build-up a progressive and successful career in Microbiology.</li> </ol>
<b>F.Y.B.Sc Microbiology Sem-I</b>	
<b>Course Title</b>	<b>Outcomes</b>
MB111:Introduction to Microbial World	<ol style="list-style-type: none"> <li>1. Enhanced the knowledge of the students about the history of the microbiology and the discovery of the microorganisms.</li> <li>2. The student's knowledge is enhanced in the history and the evolution of the microbiology.</li> <li>3. The knowledge in the various fields and the contribution of the different scientist in the microbiology enhanced the various ideas in the field of the research.</li> <li>4. Enhanced knowledge about the current research in the various fields in microbiology.</li> <li>5. Enhanced knowledge of students in the classification of the groups of microorganisms.</li> <li>6. The students have got the capability to differentiate and classify the different groups of microorganisms</li> <li>7. The students' interest for Microbiology and different fields of microbiology has enhanced.</li> </ol>
MB112: Basic Techniques In Microbiology	<ol style="list-style-type: none"> <li>1. Enhanced practical knowledge of the students.</li> <li>2. The knowledge about various techniques used in research and the practical is enhanced.</li> <li>3. The ability of the students to use the various techniques and the instruments is enhanced.</li> <li>4. The fear of students about the practical's and the use of techniques have overcome.</li> <li>5. Sharpened the technical sensibility of the students</li> <li>6. The capability of students to use the advanced techniques in research is enhanced.</li> <li>7. The ability to explore the ideas of students in the research is enhanced.</li> </ol>
MB113:Practical course Based On Theory Paper I And II	<ol style="list-style-type: none"> <li>1.Awareness regarding safety measures in laboratory</li> <li>2. Increase Knowledge of laboratory instruments and their handling with SOP.</li> <li>3. Improves in technical handling of microbes as well as microscope.</li> <li>4. Aware about efficiency of disinfectant and how to find it .</li> </ol>



**F.Y.B.Sc Microbiology Sem-II**

<p align="center">MB121:Bacterial Cell and Biochemistry</p>	<ol style="list-style-type: none"> <li>1. Ability of students to classification of bacteria on the basis of the structure is enhanced.</li> <li>2. Knowledge of students regarding to the microscopic forms or the structures of the microorganism is improved.</li> <li>3. Enhanced knowledge of the chemical compositions of the bacterial cell.</li> </ol>
<p align="center">MB122: Microbial Cultivation and Growth</p>	<ol style="list-style-type: none"> <li>1. Students are able to make use of various microscopic techniques.</li> <li>2. Student’s ability to cultivate various forms of microorganism is enhanced.</li> <li>3. Increased understanding about measurements of cell number and biomass.</li> <li>4.Understand different preservation techniques for bacteria and fungi.</li> <li>5.Understand different factors which affect microbial growth.</li> </ol>
<p align="center">MB123:Practical course Based On Theory Paper I And II</p>	<ol style="list-style-type: none"> <li>1.The knowledge about various techniques used in research and the practical is enhanced.</li> <li>2.Aseptic Handling skills have developed</li> <li>3.Awareness about Skin Microflora and disinfectant was enhanced.</li> <li>4. Knows about various types of organisms cultivation.</li> <li>5.Students will be trained in preparing laboratory manuals, standard operating practices and log books.</li> </ol>

**Course outcomes B. Sc. Microbiology Sem-III**

<p align="center"><b>Course Title</b></p>	<p align="center"><b>Outcomes</b></p>
<p align="center">MB 331 Medical Microbiology I</p>	<p>After completion of these course students should be able to :</p> <ol style="list-style-type: none"> <li>1.Understand human body system and infectious disease of it.</li> <li>2 .Aware about epidemiological disease prevention and control measures.</li> <li>3.Know about bacterial pathogenic disease its pathogenesis, laboratory diagnosis, epidemiology, prophylaxis and chemotherapy.</li> </ol>
<p align="center">MB 332 Genetics and Molecular biology I</p>	<ol style="list-style-type: none"> <li>1.know about basics of genetics eukaryotic recombination and gene mapping .</li> <li>2.Know in details about DNA replication and mismatch repair.</li> <li>3.know in details about prokaryotic and eukaryotic transcription process.</li> <li>4.Know about the second stage of protein synthesis that is translation in detail.</li> <li>5.Study the safety guidelines hazard and uses of recombinant DNA technology.</li> <li>6.Understands the technique used for recombinant DNA technology.</li> </ol>
<p align="center">MB 333 Enzymology</p>	<ol style="list-style-type: none"> <li>1.Study structure of enzyme and role of cofactor in metabolism.</li> <li>2.Understand methods for enzyme assay.</li> <li>3.Understands principle and various methods for enzyme enzyme purification based on various characteristics.</li> <li>4.Study enzyme kinetics in detail.</li> <li>5.Study metabolic regulation at molecular level.</li> <li>6.Study immobilization of enzyme and its application.</li> </ol>

MB 334 Immunology I	<ol style="list-style-type: none"> <li>1.Understand definition and classification of immunity</li> <li>2.Understand formation of blood cells from stem cell in details.</li> <li>3.Know about the organs involved in immune systems</li> <li>4.know about he immunological nonspecific defence mechanism of body.</li> <li>5.Know about the concept and type of antigen</li> <li>6.Understand details about antibodies.</li> <li>7.Understand third line of immunological defence, humoral and cell mediated immune response.</li> <li>8.Understand about mechanism of transplantation of graft in detail.</li> </ol>
MB 335 Fermentation technology I	<ol style="list-style-type: none"> <li>1.Understand strain improvement for fermentation.</li> <li>2.Understand media optimization for maximum production.</li> <li>3.Understand media monitoring and control of fermentation process.</li> <li>4.Understand criteria for scale up and scale down process.</li> <li>5.Know about downstream processing.</li> <li>6.Know quantification of fermentation process.</li> <li>7.Understand quality control and fermentation process.</li> <li>8.Understand different aspects of quality assurance of finished product.</li> <li>9.Understand process economics and intellectual property right.</li> </ol>
MB 336 Food and Dairy Microbiology	<ol style="list-style-type: none"> <li>1.Know about dairy development in India, milk constituent , Microbiology of milk, preservation, pasteurization and microbial analysis of milk.</li> <li>2.Understand classification of food based on stability, food spoilage, food preservation , microbial food poisoning, food infection as well as fermented food, and application of genetically modified microbes in food alongwith food sanitation and regulation.</li> </ol>
<b>Course outcomes B. Sc. Microbiology Sem-IV</b>	
<b>Course Title</b>	<b>Outcomes</b>
MB 341 Medical Microbiology II	<ol style="list-style-type: none"> <li>1.Understand concept of chemotherapy and mode of action of different antibacterial agent on bacteria fungi virus protozia and resistance to antibiotic.</li> <li>2.Know details about charecristic , cultivation , pathogenesis, lab. diagnosis , epidemiology, prophylaxis, and treatment of viral disease.</li> <li>3.Know the details about parasite according to characteristics , cultivation , pathogenesis, prophylaxis and treatment .</li> <li>4.Know the details of candida and non candida fungal pathogens.</li> </ol>
MB 342 Genetics and molecular biology II	<ol style="list-style-type: none"> <li>1.Know about gene transfer by transformation.</li> <li>2.Know about gene transfer by transduction.</li> <li>3.Know about gene transfer by conjugation.</li> <li>4.Understand DNA damage and various mechanism of damage repair.</li> <li>5.Know detaiols of recombinant and mutant in bacteriophage</li> <li>6.Study the tools of recombinant bacterial technology</li> <li>7.Study generation , transfer of recombinant DNA and clone identification.</li> </ol>

<p>MB 343 Metabolism</p>	<ol style="list-style-type: none"> <li>1. Know different mechanism of membrane transport.</li> <li>2. Study bioenergetics and mitochondria ETC.</li> <li>3. Study biosynthesis and bidegradation of different biomolecules.</li> <li>4. Understand bacterial pphotosynthesis, habitat and example with regulation of calvin cycle.</li> </ol>
<p>MB 344 Immunology II</p>	<ol style="list-style-type: none"> <li>1. Study details of MHC molecules.</li> <li>2. Understand cytokines, interferon , interleukines and TNFs</li> <li>3. Study details of antigen antibody reaction with visualization of antigen antibody complex.</li> <li>4. Know immunoheamatology with blood banking practices.</li> <li>5. Know health immunology with details of immunization schedule.</li> <li>6. Study of hypersensitivity in details.</li> <li>7. Study about hybridoma technology and monoclonal antibodies.</li> </ol>
<p>MB 345 Fermentation technology</p>	<ol style="list-style-type: none"> <li>1. Know about solid state fermentation submerge fermentation.</li> <li>2. Understand large scale production of primary and secondary metabolites enzymes, steroids, biomass based product, milk product, vaccines and immunsera.</li> </ol>
<p>MB 346 Agricultural and Environmental Microbiology</p>	<ol style="list-style-type: none"> <li>1. Understand plant growth improvement and method of plant disease control.</li> <li>2. Study production of biofertilizer.</li> <li>3. Understand in brief the concept of bioremediation bioaugmentation biosorption and its application.</li> <li>4. Understand in detail the concept of microbial leaching and its application in details.</li> <li>5. Make aware about nanobiotechnology and its use</li> <li>6. Develop awareness of microbial biosensor and use if bichips in environmental monitoring.</li> <li>7. Create awareness about biodegradable plastic and bifual cells</li> <li>8. Understand the effect and concept of bioterrorism.</li> </ol>
<p>MB 347 practical course I (Applied microbiology )</p>	<ol style="list-style-type: none"> <li>1. Understand use of microbes for pesticide degrading organism from soil.</li> <li>2. Study isolation and classification of lactobacillus .</li> <li>3. Understand lab scale production and fermentation of ethanol.</li> <li>4. Study quality assurance test for growth factor and stability testing of non biocidal injectibles.</li> <li>5. Understand importance of MIC and MBC.</li> <li>6. Understand various taste of dairy products for quality checking.</li> <li>7. Know about the production application and effect of bioinoculant.</li> <li>8. Study of infected food pathogen.</li> <li>9. Create awareness about fungal pathogen on crop.</li> <li>10. Understand antifungal activity of lactic acid bacteria.</li> <li>11. Examine rust and smut causing fungal pathogen</li> <li>12. Understand the use of microbes in dye degradation.</li> <li>13. Study the synthesis of nanoparticals.</li> <li>14. To gain the knowledge about the application of microbiology.</li> </ol>

<p>MB 348 Practical course II (Biochemistry and Molecular biology)</p>	<ol style="list-style-type: none"> <li>1. Understand absorption spectra.</li> <li>2. know clinical biochemistry with various biochemical test.</li> <li>3. Know about analytical test for protein and carbohydrates.</li> <li>4. Use and preparation of buffer.</li> <li>5. Use of paper chromatography technique.</li> <li>6. Understand quantitative biochemical techniques.</li> <li>7. Know about enzyme production.</li> <li>8. Study of isolation and morphology of bacteriophage</li> <li>9. Know about the technique of genomic isolation.</li> <li>10. Understand plasmid isolation .</li> <li>11. Understand transplanted and selection of recombinant.</li> <li>12. Gain knowledge about research activity.</li> </ol>
<p>MB 349 Practical course III (Diagnostic Microbiology and Immunology )</p>	<ol style="list-style-type: none"> <li>1. Understand the role of microbes in human health .</li> <li>2. Learn about parasite.</li> <li>3. Develop epidemiological awareness by survey.</li> <li>4. Learn about the factor of blood and their normal values.</li> <li>5. Study ABO blood group system.</li> <li>6. Learn the importance of agglutination test.</li> <li>7. Study antigen antibody reaction .</li> <li>8. Understand technique importance for biochemical diagnosis.</li> <li>9. Know the work of blood bank.</li> </ol>

### Programme Outcomes: B. Sc Botany

<b>Department of Botany</b>	After successful completion of three year degree program in Botany a student is able to;
<b>Programme Outcomes</b>	<ol style="list-style-type: none"> <li>1. Students know about different types of lower &amp; higher plants their evolution in from algae to angiosperm &amp; also their economic and ecological importance.</li> <li>2. Cell biology gives knowledge about cell organelles &amp; their functions.</li> <li>3. Molecular biology gives knowledge about chemical properties of nucleic acid and their role in living systems.</li> <li>4. Genetics provides knowledge about laws of inheritance, various genetic interactions, chromosomal aberrations &amp; multiple alleles.</li> <li>5. Structural changes in chromosomes.</li> <li>6. Student can describe morphological &amp; reproductive characters of plant and also identified different plant families and classification.</li> <li>7. They know economic importance of various plant products &amp; artificial methods of plant propagation</li> <li>8. Use modern Botanical techniques and decent equipments.</li> <li>9. To inculcate the scientific temperament in the students and outside the scientific community.</li> </ol>


<b>Course Outcomes F.Y.B. Sc Botany Sem-I</b>	
<b>Title of Course</b>	<b>Outcomes</b>
BO-111 Plant Life and Utilization-I	<ol style="list-style-type: none"> <li>1. This Course is to ensure that you can achieve an up to date level of understanding of plant science.</li> <li>2. Knowledge and understanding of the range of plant diversity in the term of Structural, Functional and Environmental relationship.</li> <li>3. The role of plant is the functioning of the ecosystem</li> <li>4. Apply the knowledge of the basic science, life science of the fundamental processes of the plant to study and analyze any plant form.</li> <li>5. Know about correct information any plant species.</li> </ol>
BO-112 Plant Morphology and Anatomy	<ol style="list-style-type: none"> <li>1. understanding the Morphological structure of plant its classification, Identification and Nomenclature.</li> <li>2. Know the about Morphological of reproductive part of that plant.</li> <li>3. understanding the better knowledge of Inflorescence and their Inflorescence type.</li> <li>4. know the about anatomical structure of every plant part and inside the tissue arrangement.</li> </ol>
<b>Course Outcomes F.Y.B. Sc Botany Sem-II</b>	
Bo-121 Plant life and Utilization - II	<ol style="list-style-type: none"> <li>1. Identify the taxonomic position of plant and habit and reproductive structure.</li> <li>2. Known about over all plant diversity their scientific naming and in identification.</li> <li>3. Known about detail structure of each plant.</li> <li>4. Apply the knowledge of the basic science, life science of the fundamental process of the plant to study and analyze any plant form.</li> </ol>

Bo-122 Principal of plant science	<ol style="list-style-type: none"> <li>1. To know about the scope of Plant physiology.</li> <li>2. Understand the fundamental of recombinant DNA technology.</li> <li>3. Know about Diffusion, Osmosis and plasmolysis theory in plant physiology.</li> <li>4. Understanding the Structural of Plant cell and Cell cycle in plant.</li> <li>5. know about the better knowledge of Molecular biology structure of DNA and its Scope</li> </ol>
<b>Course Outcomes B. Sc Botany Sem-III</b>	
<b>Title of Course</b>	<b>Outcomes</b>
BO -331 Cryptogamic Botany	<p>After completion of these courses students should be able to;</p> <ol style="list-style-type: none"> <li>1. Study of cryptogams to understand their Diversity.</li> <li>2. Know the systematics, morphology and structure of algae, fungi , bryophytes, and Pteredophytes.</li> <li>3. Know life cycle pattern of cryptogams.</li> <li>4. Know economic importance of cryptogams.</li> <li>5. Know evolution of algae, fungi, bryophytes and Pteredophytes</li> </ol>
BO-332 Cell & Molecular Biology	<ol style="list-style-type: none"> <li>1. Gain knowledge about cell and its function.</li> <li>2. Learn the scope and importance of molecular biology.</li> <li>3. Understand ultra structure of cell wall, plasma membrane and cell organelles</li> <li>4. Understand the biochemistry of cell.</li> <li>5. Understand the biochemical nature of nucleic acid and their role in living systems.</li> </ol>
BO-333 Genetics & Evolution	<ol style="list-style-type: none"> <li>1. Systematic study of gymnosperms and angiosperms.</li> <li>2. Understand the morphological and reproductive character of spermatophytic plants.</li> <li>3. Understand economic importance of gymnosperms and angiosperms.</li> <li>4. Understand the diversity among spermatophyte.</li> <li>5. To bring investigation of palaeo botanical study in India.</li> <li>6. Know, scope and application of Palaeo botany.</li> <li>7. Know types of fossils, geological time scale.</li> </ol>
BO-334 Spermatophyta & Palae Botany	<ol style="list-style-type: none"> <li>1. Know the general Characters, economic importance &amp; classification of gymnospermic plant according to chumberlain.</li> <li>2. study life cycle of pinus &amp; Gnetum with reference to morphology, anatomy, reproduction, gametophyte &amp; Sporophyte.</li> <li>3. Study the families according to Bentham &amp; Hookers system CO-</li> <li>4. Know the plant identification</li> <li>5. Understand the fossils with reference to fossils group.</li> </ol>
BO-335 Horticulture & Floriculture	<ol style="list-style-type: none"> <li>1. Understand economic importance of plant and plant product.</li> <li>2. Know the methods of plant propagation.</li> <li>3. Understand the fruit &amp; vegetables production technology.</li> <li>4. Understand the scope &amp; importance of floriculture.</li> <li>5. Understand the methods of cultivation of different flowering plants.</li> </ol>
BO-336 Computational Botany	<ol style="list-style-type: none"> <li>1. Understand the scope &amp; importance of biostatistics.</li> <li>2. Understand the scope and some basic commonly used terms like sampling, data, dispersion, population, central tendency etc.</li> <li>3. Knowledge to apply statistical analysis to biological data for testing different hypothesis.</li> </ol>

**Course Outcomes B. Sc Botany Sem-IV**

BO-341 Plant Physiology & Biochemistry	<ol style="list-style-type: none"><li>1. Know scope and importance of plant physiology.</li><li>2. Understand plant &amp; water relation.</li><li>3. Understand process of photosynthesis, C<sub>3</sub>, C<sub>4</sub>, CAM pathways.</li><li>4. Understand the process of respiration, growth and developmental process in plant.</li><li>5. Understand the biochemistry of cell.</li><li>6. Understand the different biochemical reaction of biomolecules in plant cell.</li></ol>
BO-342 Plant Ecology & Biodiversity	<ol style="list-style-type: none"><li>1. Know the biotic and abiotic components of ecosystem.</li><li>2. Food chain &amp; food web in ecosystem.</li><li>3. Understand diversity among various groups of plant kingdom.</li><li>4. Understand plant community &amp; ecological adaptation in plants.</li><li>5. Scope, importance and management of biodiversity.</li></ol>
BO-343 Plant Pathology	<ol style="list-style-type: none"><li>1. Understand scope and importance of plant pathology.</li><li>2. Know disease cycle and disease development.</li><li>3. Know the effect of plant diseases on economy of crops.</li><li>4. Know the methods of studying plant diseases.</li><li>5. They can identify the plant diseases like bacterial, nematodal, and fungal.</li><li>6. Know the disease forecasting.</li><li>7. Know the prevention and control measures of plant diseases.</li></ol>
BO-344 Medicinal & Economic Botany	<ol style="list-style-type: none"><li>1. Understand scope and importance of pharmacognosy.</li><li>2. Know the cultivation, collection, processing &amp; importance of various herbal drugs.</li><li>3. Understand the scope of economic botany.</li><li>4. Know the botanical resources like non wood forest products.</li><li>5. Understand the concept of Ayurvedic pharmacy.</li></ol>
BO- 345 Plant Biotechnology	<ol style="list-style-type: none"><li>1. Understand the fundamental of recombinant DNA technology.</li><li>2. Understand tissue culture techniques.</li><li>3. Role of microbes in agriculture, medicine &amp; industry.</li><li>4. Know the fermentation technology.</li><li>5. Understand the concept of bioinformatics, genomics &amp; proteomics.</li><li>6. Understand technical germplasm &amp; cryopreservation</li></ol>
BO-346 Plant Breeding & Seed Technology	<ol style="list-style-type: none"><li>1. Understand the scope &amp; importance of plant breeding.</li><li>2. Know the technique of production of new superior crop varieties.</li><li>3. Know the about heterosis, hybrid vigor etc.</li><li>4. Know the process of hybrid variety, development &amp; their release.</li><li>5. Know about seed germination, processing, production etc.</li></ol>



  
(Dr. R.N. Bhavare)  
**Principal**  
Karmaveer Ganpat Dada More  
Arts, Commerce & Science College  
Niphad Dist. Nashik.