



Government of Karnataka  
Department of Collegiate Education



**Government First Grade College, Vijayanagara, Bengaluru-560104**

AICTE Approved and RUSA Funded

<https://gfgc.kar.nic.in/vijayanagar/>

## **Outcomes Based Education**

### **PROGRAM OUTCOMES AND COURSE OUTCOMES**

Outcomes based education is an education approach that focuses on the attributes or outcomes after completing an academic program. The desired outcomes are defined first and the program curriculum and teaching-learning methodology and supporting facilities are designed to support the intended outcomes. Some of the key features of outcome-based education are, it focuses on the objectives and outcomes of the program, it requires evidence of measurement and attainment of objectives and outcomes and output depends on every stakeholder involved.

The college has adopted Outcomes based education under CBC system. The designing of program and the program outcomes happens at the university level for all the programs offered by the colleges in affiliation with the university. Further the chairperson and the members of the Board of Studies and also the textbook committees with their convener and members involving both the university teachers and the college teachers design the text and pedagogy in line with the POs set by the university. The Program offered by the college and their outcomes and the course outcomes are stated below.

**GOVERNMENT FIRST GRADE COLLEGE, VIJAYANAGARA, BENGALURU**

**2018-19**

**PROGRAM OBJECTIVES AND OUTCOMES**

**PROGRAM SPECIFIC OUTCOMES AND OBJECTIVES**

**COURSE OUTCOMES AND OUTCOMES**

**KANNADA LANGUAGE**

**OBJECTIVES**

- To develop language literature and cultural values among students
- To make them gender sensitive
- To develop aesthetic sense
- To develop language competency and efficiency

**OUTCOME**

- aware of social problems
- To make them recognize marginalised voices
- enable students to face competitive exams
- Students learn the social values of life.
- Allows students to be good writers.
- Enable students compare and contrast literary texts of different languages.

## **COURSE OBJECTIVE AND COURSE OUTCOME - BA ,BSC,BCOM AND BBA**

- **KANC1S -Course objective** : to develop language literature and cultural values among students.

**Course outcome** : It allows students to learn higher education

- **KANC2S -Course objective** : To study the folklore literature  
**Course outcome** : Students learn the social values of life.
- **KANC3S - Course objective** : to develop language competency and efficiency  
**Course outcome** : enable students compare and contrast literary texts of different languages.
- **KANC4S -Course objective** : aware of social problems.

**Course outcome** : Makes students aware of culture

### **ENGLISH**

#### **FOR PROGRAM BACHELOR OF ARTS**

Outcome:

- Humanities combined with language equips students to communicate and receive their ideas/ learning across languages and cultures.
- They become global citizens with local/native skills.
- Communicative and presentation skills are improved.

outcome :

- Serves as global link language.
- Learning English lays a strong foundation to develop both verbal and nonverbal communicative skills.
- It helps developing skills like learning , speaking, reading & writing skills.
- It helps forming critical and creative sensibilities.
- Helps in building students' self confidence level.
- Increases Students' employable opportunity.

Course Outcome:

English Language (I & II year Students):

- Helps form and improve communicative skills.
- Helps with presentation skills by overcoming public speaking anxiety.
- Paves way for positive impact on the career path.
- Gender sensitization
- Helps learning nuances of language like improving vocabulary, expressions and usage

Optional English: ( Ist, IInd & IIIrd year students)

- Helps in train students with higher skills of language like standard vocabulary and unique expressions.
- Helps in improving oral and narrative skills
- More complex forms of writing can be analysed.
- Traditionally marginal voices are made read.
- Cultivate creative writings of variety.

Communicative English: Vocational course. ( Ist, IInd & IIIrd year students)

- Preparing for the world of media with media user specific English phrases and concepts.
- Intensive vocabulary learning.

- Preparing students to take up challenges of the media world.
- How to execute in the media like radio, television, film & advertising world are learnt.
- Business skill are learnt with business communication
- English phonetics is learnt extensively.
- Prepares students for the immediate skill based jobs.

### **Bachelor of Science**

#### Program Outcome:

- Serves a strong foundation for developing communicative skills.
- The world of facts is emphasized through pieces related to science.
- Helps in understanding, analysing & interpreting different subjects of science as most of them follow English as a medium of instruction and learning.
- Gender sensitization
- Knowing marginal voices

#### Program Specific outcome of English:

- Learning English lays a strong foundation to develop both verbal and nonverbal communicative skills.
- It helps developing skills like learning, speaking, reading & writing skills.
- It helps forming critical and creative sensibilities.
- Helps in building students' self confidence level.
- Grammar units take care of minute learning in English language

#### Course Outcome

English Language( I & II year students)

- Many an inspiring stories motivate students to handle pressure in learning difficult concepts and ideas.
- Helps form and improve communicative skills.
- Helps with presentation skills by overcoming public speaking anxiety.
- Paves way for positive impact on the career path.
- Gender sensitization
- Helps learning nuances of language like improving vocabulary, expressions and usage.

### **Bachelor of Commerce**

Course : English

**Paper I:** Language English I

**Paper II:** Language English II

**Paper III:** Language English III

**Paper IV:** Language English IV

#### **PROGRAMME SPECIFIC OBJECTIVES:**

In the contemporary postcolonial world learning English language is a dire necessity as it is not only the lingua franca but also a relevant requirement in the global job market. English language opens gateways to knowledge,

provides information and quick access to new age skill set to its learners. So commerce students need to learn the use and usage of English language in its entirety, that is appreciation of literature and the correct know how of the nuances of using its rules.

## **OBJECTIVES:**

### **Paper I& II**

- To strengthen basic knowledge of grammar units – articles, tenses, prepositions and question forms
- To develop correct usage of vocabulary in the students
- To enable the student to frame grammatically correct sentences
- To develop comprehension skills through reading and answering unseen passages
- To inculcate effective writing skills through summarizing, essay writing and story development
- To enable effective oral communication skills

### **Paper III & IV**

- To develop effective writing communication skill through a variety of letters like

1. Letter of complaint
  2. Letter of enquiry
  3. Replies
  4. Cover letter
  5. Curriculum vitae
  6. Sales letter
- Effective Writing Skills
    1. Script for advertisement
    2. Dialogue writing
    3. Precise Writing
    4. Composing and editing news

## **OUTCOMES**

- ✓ The above objectives will have the desired outcome of developing confidence in the student to face the written and oral form of interview



- ✓ Students may pursue post-graduation course in different fields like M. Com., MBA & Masters in Economics
- ✓ Students may be placed as facilitators in educational institutions, mass media and corporate sector

### **BA PROGRAMME OBJECTIVES**

BA program objectives, focus on objectives that our graduates are expected to attain within few years of graduation. The programme intends to familiarize the students with the broad contours of Social Sciences, and educates them to think critically, communicate clearly and collaborate effectively as they apply the theoretical concepts to real life situations. Program aims to encourage students to respect and understand the world around them and establish links between subjects, cultures and other areas of experience. The programme intends to develop a wide range of skills that are transferable across courses and allow them to see from a humanities perspective. The program emphasize the importance of intellectual growth, professional ethics and service to society at large.

1. Imbibe sufficient theoretical knowledge that enable students to apply them to solve practical problems in real life situations.
2. To develop effective communication skills with a high degree critical thinking that enhances learning ability, developed for being continuously employable.
3. To instill leadership qualities enabled with decision making skills that reflect a high degree of social and ethical consciousness.
4. To expose the students for sustained research orientation so as to comprehend a growingly complex Historical, social, economic, political environment.
5. To encourage self-sustaining entrepreneurship qualities that encourages calculated risk taking.

### **BA PROGRAMME OUTCOMES**

*Students will be able to:*

1. Acquire sufficient theoretical and practical knowledge to apply in real life situations.
2. Apply effective communication skills and critical thinking that enhances learning

ability and employability.

3. Demonstrate leadership qualities, ethically sound, enabled with decision making skills, that reflect a high degree of social and ethical consciousness.
4. Understand the need for sustained research orientation to comprehend a growingly complex historical, social, economic, political and ethical environment.
5. Possess self-sustaining entrepreneurship qualities that encourages calculated risk taking.

**FOLLOWING COURSE COMBINATIONS UNDER BA PROGRAMME ARE OFFERED BY THE INSTITUTION.**

**HISTORY, ECONOMICS, POLITICAL SCIENCE (HEP)**

**HISTORY, ECONOMICS, GEOGRAPHY (HEG)**

**HISTORY, ECONOMICS, SOCIOLOGY (HES)**

**HISTORY, ECONOMICS, KANNADA (HEK)**

**JOURNALISM, SOCIOLOGY, OPTIONAL KANNADA (JSK)**

**PSYCHOLOGY, JOURNALISM, COMMUNICATIVE ENGLISH (PJCE)**

#### **PROGRAMME SPECIFIC OBJECTIVES**

**The objectives of the Bachelor of Arts program in History is to provide students with an understanding of:**

1. Wide knowledge of facts and figures of the past and make the learner assimilate the essence of that with the present day world.

2. The ways in which human groups have come into contact and interacted with one another, including systems of communication, migration, commercial exchange, conquest, and cultural diffusion.
3. The significance of key turning points in world history.
4. The development and explain the significance of distinctive forms of political, social, and economic organizations.
5. Major discoveries, inventions, and scientific achievements, and assess their impact on society.
6. Achievements in art, architecture, literature, and philosophy, and assess their impact on society.
7. The world we live in today and compare with past eras such as the lower paleo lithic, upper paleo lithic, Neolithic, agrarian, and industrial ages.
8. Ideals, practices, and historical developments of major belief systems.
9. Challenges that humans have faced in the ecological, economic, political, and other spheres of life, and explain how they have responded to those challenges.
10. The choices humans have made in the past and consider how choices made today may affect the future.

### **Objectives of studying History**

1. Study of History helps students to gain a coherent knowledge and understanding of India's past and that of the wider world, teaching should equip students to ask perceptive questions, think critically, weigh evidence, sift arguments and develop perspective and judgment this ties is closely with global development
2. Know and understand significant aspects of the history of the wider world; the nature of ancient civilizations; the expansion and dissolution of empires; characteristic features of medieval and Modern world.

3. Understand historical concepts of India such as continuity and change, cause and consequence, similarity, difference and significance, and use them to make connections, draw contrasts, analyze trends, frame historically-valid questions and create their own structured accounts, including written narratives and analyses
4. Understand the methods of historical enquiry, including how evidence is used rigorously to make historical claims, and discern how and why contrasting arguments and interpretations of the past have been constructed. To be objective while teaching and learning history, and to be free from bias
5. Learning history instills the feeling of patriotism in the hearts of the students, they appreciate the sacrifice and struggle for freedom, the students can know the glorious past of their country which helps to develop feeling of love and respect for their country.
6. Gain historical perspective by placing their growing knowledge into different contexts, understanding the connections between local, regional, national and international history; between cultural, economic, military, political, religious and social history.

**The objectives of the Bachelor of Arts program in Economics is to provide students with an understanding of:**

1. Applying economic concepts and theories to explain the process whereby economic agents allocate limited resources under various market structures and policy settings.
2. The behavior of economic and financial indicators and the effect of policy on the aggregate economy in the context of domestic and international environments.
3. The statistical and econometric techniques to collect, analyse and interpret data.
4. Effectively communicating research findings both verbally and in writing.
5. How to use economic concepts and theories to explain business and economic phenomena in a domestic and global context.

**The objective of the Bachelor of Arts program in Geography is to provide students with an understanding of:**

- How space, place, and scale shape the interaction between environment and society;
- Critical thinking skills developed through examining a range of analytical approaches to investigate geographic, urban, and environmental processes;
- Contemporary explanatory frameworks in Geography and Urban Studies such as political ecology, feminist and poststructuralist theory, and development theory;
- The application of information technology skills to analyze spatial and temporal information, processes, and patterns through integrative research experiences;
- Practical considerations of community and environmental organizational settings at the local and regional scales.

Programme Specific Outcome:

1. Govt Department: A geographer can avail job opportunities in government departments (like planning and developmental commissions, forestry, environmental, and disaster management departments etc), travel agencies, manufacturing firms, text book and map publishers, media agencies, etc.

2. Cartographer: Many people choose to work as a cartographer who is a person with extensive knowledge about maps and is involved in making maps, charts, globes, and models of Earth and other planets.
3. Surveyor: Many others with a degree in geography also opt to work as a surveyor.
4. GPS Surveyors: In recent days even the fields of GIS as well as Remote Sensing are providing job opportunities to people with the educational background in geography and related specializations.
5. GIS and Remote Sensing Fields: Geography as a career provides multiple job options.
6. Drafter: He/she associate closely with engineers and architectures. It involves planning, housing and development projects in terms of their location and utilization.
7. Government employer: Central government agencies employ geographers for mapping, intelligence work and remote sensing interpretation. State and local governments employ geographers on planning and development commissions.
8. Urban and regional planner: Concerned with planning, housing and Development projects with respect to their location and utilization of available land-space.

9. GIS specialist: City governments, county agencies and other government agencies and private groups are often in need of experienced GIS professionals.
10. Climatologist: Agencies viz. National Weather Service, news media, the Weather Channel and other government entities occasionally need climatologist.
11. Transportation manager: The regional transit authorities or shipping, logistics and transportation companies requires in transportation geography.
12. Researcher: Many Government and non-government institutes along with research centers offers several career options for qualified geographers with numerous specializations.
13. Teacher/Professor: The college teachers, school teachers and university teacher. Depending upon the experience and degrees obtained
14. Demographer: In government and research organizations.
15. Government officer: Geographical Survey of India/State and Central government provides job opportunities.
16. It is learn that in the NET/SET, MPSC/UPSC and other competitive examinations.

17. Digitizers in GIS company.

The objectives of the Bachelor of Arts program in Optional **Kannada** is –

### **PROGRAM OBJECTIVE**

- to develop language literature and cultural values among students
- to make them gender sensitive
- To develop aesthetic sense
- to develop language competency and efficiency

### **PROGRAM OUTCOME**

- aware of social problems
- to make them recognize marginalised voices
- enable students to face competitive exams
- Students learn the social values of life.
- Allows students to be good writers.
- enable students compare and contrast literary texts of different languages.

1. To strengthen oral communication skills in kannada / Regional Language.
2. To develop the knowledge of writing in Kannada/ Regional Language.
3. To improve vocabulary in Kannada/ Regional Language.
4. To enrich the knowledge of synonyms, antonyms, idioms and phrases.
5. To inculcate the knowledge of grammar in Kannada/ Regional Language.



6. To develop the knowledge of various forms of Kannada literature.
7. To inculcate the knowledge of compositional and comprehension skills.
8. To understand the socio-cultural perspectives.

The objective of the Bachelor of Arts program in **Journalism** is to make students

1. Understand the communication basics, concept and model.
2. Understand the importance of Journalism.
3. Create understanding of the mass media and society.
4. Develop the knowledge of media laws.
5. Inculcate the knowledge of current socio-cultural, economic and political issues.
6. Make students aware about problems and prospects of media industry.
7. Understand the role and importance and functions of mass media.
8. Acquaint students with the glorious journey of print and electronic media.
9. Understand the working pattern of electronic media platform.
10. Familiar with different types of reporting.
11. Know the elements, structure and type of news.
12. Familiar with the basics of editing.
13. Understand basic concepts of advertising and its development.
14. Understand about the definitions and concepts of public relations.
15. Familiar with the basics of media management.

The objective of the Bachelor of Arts program in **Sociology** is to provide students with an understanding of:

1. Sociological concepts and theories.
2. The importance of sociology.
3. Understanding of the human society.
4. Indian culture and Society.
5. Current socio-cultural issues.
6. The problems and issues of social development.

7. Communication and relations with media and society.
8. Rural Indian society and its problems.
9. Need, role, types, methods, importance and functions of research.
10. Social stratification.

The objective of the Bachelor of Arts program in **Psychology** is

1. To give the students a general perspective on the study of the human mind.
2. To give the students a general perspective on the study of how the brain and its functions affect and influence human behaviour.
3. To introduce the basic concepts found in cognitive psychology with relationship to human perception and attention.
4. To teach the Students to learn the elements of behavioural psychology.
5. To teach the Students to learn the major concepts, theoretical perspectives, empirical findings and historical trends in psychology.
6. To teach the Students to understand and apply basic research methods in psychology.
7. To teach the Students to respect and use critical and creative thinking.

In the light of the above, these courses have been conceived. Journalism courses would enhance the employability of our students and also provide for horizontal mobility. A graduate from this courses will not only stands a better chance in entering the fourth estate but also carve out a capacity to stand on his own as a journalist.

### **Course Objectives and Course Outcomes**

**1<sup>st</sup> SEMESTER, Paper -1 (Paper code :AJ4C11 )**

**Title : Introduction to Communication and Media**

#### **Course Objectives**

1. To develop the knowledge of basic elements of Communication.
2. To inculcate the knowledge of communication models.
- 3 To familiarize and equip them with a range of communication skills.
4. To acquaint students with the various types of Communication.
5. To introduce students to the basics of journalism.

6. To enhance understanding of the technical terms and jargons of Journalism.
7. To promote confidence, observation skills, interpretation skills among the students.
8. Students would be able to enhance understanding of the technical terms and jargons of Journalism.

### **Course Outcomes**

1. Students would be able to introduce themselves to the theories of Communication.
2. Students would be able to inculcate the knowledge of Communication models.
3. Students would be able to develop the knowledge of basic elements of Communication.
4. Students would be able to acquaint themselves with the various types of Communication.
5. Students would be able to strengthen the 5Cs of Communication.

### **2<sup>nd</sup> SEMESTER, Paper- 02 (Paper code :AJ4C2S )**

#### **Title : Print Media**

### **Course Objectives**

1. To introduce students to the basics of journalism.
2. To familiarize the history of journalism with respect to print media
3. To familiarize the pioneers of Journalism and modern printing technologies.
4. To develop the knowledge of skills of journalism.
5. To promote ethics of journalism, national integrity and responsibility among the students.

### **Course Outcomes**

1. Students would be able to understand the basics of journalism.
3. Students would be able to acquaint them with important aspects of the process of journalism.
4. Students would be able to develop the knowledge of skills of journalism.
5. To acquaint students with the glorious journey of journalism.
6. To enhance understanding of the origin of the print media.
7. To acquaint learners with technological advancements in print media.
8. To throw light on the present status of Print media.

### **3<sup>rd</sup> SEMESTER - Paper -3 (Paper code : AJ4C3S )**

#### **Title: Audio visual media**

### **Course Objectives**

1. To acquaint students with the glorious journey of electronic media.
2. To enhance understanding of the origin of the electronic media.
3. To understand the working pattern of electronic media platform.
4. To acquaint learner's with technological advancements in electronic and web media.
5. To throw light on the present status of various mass media.
6. To familiarize the students with the basic techniques of broadcasting.
7. To inculcate the knowledge of script writing.

### **Course Outcomes**

1. Students will be able to understand the working pattern of electronic media platform.
2. Students will be able to familiarize the students with the basic techniques of broadcasting.
3. Students will be able to have understanding of electronic media content creation.
4. Students will be having the knowledge of script writing.
5. Students will be having the knowledge of online journalism.
6. Students would be able to enhance understanding of the origin and growth of electronic media.

## **4<sup>th</sup> SEMESTER - Paper-04 (Paper code :AJ4C4S )**

### **Title : Media Laws**

### **Course Objectives**

1. To provide understanding of knowledge of the Indian constitution.
2. To familiarize students with the fundamental rights and duties.
3. Students will know Press laws and understand the importance of media related laws .
4. Students will know the Codes of ethics of news papers, television and Press Council of India.
5. To understand the correlation between Indian constitution, democracy and media.

### **Course Outcomes**

1. Shall have understanding of our Indian Constitution.
2. Shall get aware to legal aspects of the media and its values.
3. Shall have an overview of recent changes and future challenges of media regulation
4. Shall have understanding of media ethics.

5.Shall know how media laws and ethics empower media practitioners to perform their duties with commitment.

**5<sup>th</sup> - SEMESTER -Paper -5 (Paper code : AJ4C51)**

**Title: Reporting methods**

**Course Objectives**

1. To understand the basics of reporting
2. To familiarize the students with different types of reporting.
3. To create understanding of specialized reporting.
4. To develop the general understanding of art culture and sports reporting.
5. To inculcate the knowledge of crime reporting.

**Course Outcomes**

1. Students would be able to understand the basics of reporting.
2. Students would be able to familiarize themselves with different types of reporting.
3. Students would be able to create understanding of specialized reporting.
4. Students would be able to develop the general understanding of art, culture, politics and sports reporting.
5. Students would be able to know about crime reporting.

**5<sup>th</sup> - SEMESTER - Paper -6 (Paper code : AJ4C52 )**

**Title: Editing techniques**

**Course Objectives**

1. To familiarize the students with the basics of editing.
2. To understand the process of editing for various platforms.
3. To create understanding of specialized reporting .
4. To inculcate the knowledge of dummy, printing and layout.
5. To develop the knowledge of photography.

**Course Outcomes**

1. Students would be able to familiarize themselves with the basics of editing.

2. Students would be able to understand the process of editing for various platforms.
3. Students would be able to create understanding of specialized reporting .
4. Students would be able to understand about the dummy , printing and layout.
5. Students would be able to develop the knowledge of photography.

**6<sup>th</sup> - SEMESTER - Paper -07 (Paper code : AJ4C61 )**

**Title : Media Management**

**Course Objectives**

1. To familiarize the students with the basics of media management.
2. To understand the various types news paper ownership in India.
3. To familiarize the procedures of media establishment..
4. To understand the media organizations functions and responsibilities..
5. To understand the problems and prospects of news paper industry and global competition on Indian media.

**Course Outcomes**

1. Students would be able to familiarize themselves with the basics of media management.
2. Students would be able to understand the various types news paper ownership in India.
3. Students are familiarize the procedures of media establishment.
4. Students would be able to understand media organizations functions and responsibilities.
5. Students would be able to understand the problems and prospects of news paper industry and global competition on Indian media.

**6<sup>th</sup> - SEMESTER- Paper -08, (Paper code : AJ4C62 )**

**Title : Advertising & Public Relation**

**Course Objectives**

1. Impart basic concepts of advertising and its development.
2. Aware importance of advertising in media.
3. Knowledge of the functioning of advertising agencies.
- 4 To provide knowledge about the definitions and concepts of public relations.
5. To know the difference between public relations, publicity and propaganda
6. To understand the basic tools of public relations.

7. To learn the ethics and laws of public relations.

### **Course Outcomes**

1. Students would learn development of advertising and basic concepts.
2. Students would be able to know about role and importance of advertising in media.
3. . Students would know about advertising agencies.
- 4 Students would learn about the definitions and concepts of public relations, publicity, propaganda.
5. Students would gain knowledge about the tools of public relations.
- 6.Students would gain knowledge about the basic ethics and laws of public relations.

### **PROGRAMME OUTCOMES (PLOs)**

The key outcomes planned in this undergraduate programme in Journalism (JSK &PJCE) are underpinned as follows:  
After completing this undergraduate programme, a learner:

- 1) Shall acquire fundamental knowledge of Mass media & related study area.
- 2) Shall acquire the knowledge related to media and its impact.
- 3) Shall be competent enough to undertake professional job as per demands and requirements of M & E Industry.
- 4) Shall empower themselves by communication, professional and life skills.
- 5) Shall be able to enhance the ability of leadership.
- 6) Shall become socially responsible citizen with global vision
- 7) Shall become ethically committed media professionals adhering to the human values, the Indian culture and the Global culture.
- 12) Shall acquire the understanding of importance of cooperation and teamwork.

After this course students are also having the wide opportunity to go for higher education ie, post graduation studies in Mass communication, MSc in Electronic Media, M Sc in Advertising and Public Relations, M Sc in Film making, M Sc in Graphics and animation etc. They can also pursue MBA in Media and communications in order to broaden their horizons and enhance their employment opportunities. They can pursue Master of Arts in Sociology, MSW, Kannada literature, MSc in Psychology, counseling, Forensic science. If they want to pursue their career in teaching they can do Bachelor of Education. After studying this programme

they are equipped with essential arsenal to crack various competitive examinations conducted by different state governments or the central governments.

This is an age of information and its explosion. As a result there has been phenomenal increase in the media of communication, both print and electronic. Career opportunities for students in the field of mass communication are very high. Candidates who successfully complete this course can choose to work for Television news channels, Radio, News papers, Publishing houses, Internet, information and public relations departments of government and private corporate sector etc, and earn a healthy remuneration.

### **Level of Attainment of Outcome:**

In our college Journalism Department has a history of just two decades. But consistent commendable results and excellent performance of the students in the past years has enabled the Journalism course to attract a growing number of students from the socially and economically weaker sections of the society. The results of University examination speaks voluminous about the learning outcome of Journalism.

## **OPTIONAL KANNADA HEK AND JSK)**

### **PROGRAM OBJECTIVE**

- to develop language literature and cultural values among students.
- To develop aesthetic sense
- to develop language competency and efficiency
- to make them gender sensitive.
- aware of social problems.
- to make them recognize marginalized voices.

### **PROGRAM OUTCOME**

- enable students to face competitive exams.



- to enable students of face real life challenges.
- handling relationships.
- It allows students to learn higher education.
- Students learn the social values of life.
- Makes students aware of culture.
- Allows students to be good writers.
- enable students compare and contrast literary texts of different languages.
- Global Literature Translation This course will guide students on literary translations.
- To make student aware of exploitation.
- It allows students to study the status of women in society in the context of feminis.

### **COURSE OBJECTIVE AND COURSE OUTCOME: HEK AND JSK**

- **AK1CS1 - Course objective** : aware of social problems.  
**Course outcome** : handling relationships.
- **AK1CS2 - Course objective** : to develop language literature and cultural values among students .  
**Course outcome** : to enable students of face real life challenges
- **AK1CS3 - Course objective** : to make them gender sensitive.  
**Course outcome:** It allows students to study the status of women in society in the context of feminis.
- **AK1CS4- Course objective** : to make them recognize marginalined voices.  
**Course outcome** : Global Literature Translation This course will guide students on literary translations.
- **AK151S AND -Course objective** -To learn history of kannada literature.
- **AK152S Course outcome** : It allows students to learn higher education.

- **AK161S AND - Course objective** : To develop aesthetic sense  
**AK162S Course outcome** : Makes students aware of culture.

## **DEPARTMENT OF COMMERCE AND MANAGEMENT**

### **PROGRAMME B.COM**

#### **OBJECTIVES :**

- To cater the manpower needs of companies in Accounting Taxation, Auditing, Financial analysis and Management.
- To develop business analysis for company's capital markets and commodity markets.
- To prepare students to take up higher education to become business scientists, researchers, consultants and teachers with core competencies.
- To develop business philosophers with a focus on social responsibility and ecological sustainability.
- To develop IT enabled global middle level managers for solving real life business problems and addressing business development issues with a passion for quality competency and holistic approach.

#### **OUTCOMES :**

- Students were prepared for the professions in the field of accountancy – chartered accountancy and management accountancy, company secretary professionals in capital, bank and commodity markets, life and non-life insurance and various professional bodies.
- Students were developed with values to become ethical managers in interdisciplinary approach for their future career and growth.
- Students were prepared to take up competitive examinations of UPSC, KPSC, BSRB and SSC.
- Students were encouraged to take up higher education for M.Com, MBA, MFA, MTTM and MIB programmes.

## **I SEMESTER**

### **COURSE:1.3 FINANCIAL ACCOUNTING**

**OBJECTIVES:** The Objectives of this course is to acquaint students with the Accounting concepts, tools and techniques influencing business organization.

**OUTCOME:** Students have acquainted with the knowledge of accounting concepts, tools, techniques and added initiatives in the field of accounting influencing the business organization.

### **COURSE:1.4 INDIAN FINANCIAL SYSTEM**

**OBJECTIVES:** The objective of the course is to familiarize the students with regard to structure of organization and working of financial system in India.

**OUTCOME:** Students have been introduced and familiarized with the structure, Organization and operations of financial system in India.

### **COURSE:1.5 MARKETING AND SERVICES MANAGEMENT**

**OBJECTIVES:** The objective of the course is to familiarize the students with the principles of marketing and focus them towards marketing and management of service.

**OUTCOME:** Students have been familiarized with principles of marketing and to the new changes of the challenges, the field of marketing in coping with.

### **COURSE:1.6 (A) CORPORATE ADMINISTRATIONS**

**OBJECTIVES:** The objective is to enable the students to get familiarized with the existing company law and secretarial procedure.

**OUTCOME:** The students have been familiarized with the new company law act, 2013, rules and challenges of a company secretary and the procedures relevant.

## **II SEMESTER**

### **COURSE:2.3: ADVANCED FINANCIAL ACCOUNTING**

**OBJECTIVE:** The objective of the subject is to acquaint the students with the few accounting standards and make them familiar with the accounting procedures for different types of business.

**OUTCOME:** students have acquainted with few accounting standards and changes so incorporated in different business set-up's.

### **COURSE:2.4: RETAIL MANAGEMENT**

**OBJECTIVE:** The objective is to enable students to acquire skills in retail management.

**OUTCOME:** students have equipped with the skills and strategies of retail management.

### **COURSE:2.5: BANKING LAW AND OPERATIONS**

**OBJECTIVE:** The objective is to familiarize the students with the law and operations of banking.

**OUTCOME:** students were familiarized with the operations of banking system in India.

### **COURSE:2.6: QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS**

**OBJECTIVE:** The objective is to provide basic knowledge of statistics and their applications of business.

**OUTCOME:** students were introduced to basic tools and techniques of statistics and its application in the field of business

## **III SEMESTER**

### **COURSE:3.3 CORPORATE ACCOUNTING**

**OBJECTIVES:** The objective of this subject is to enable the students to have a comprehensive awareness about the provisions of the company's Act and corporate accounts.

**OUTCOME:** Students have adequanted with provisions of company's act and corporate accounts with more focus towards latest changes in company's Act.

#### **COURSE:3.4 FINANCIAL MANAGEMENT**

**OBJECTIVES:** The objectives is to enable students to understand the basic concepts of financial management and the role of financial management in decision making.

**OUTCOME:** Students have been familiarize with the know-how of operations of financial management in a business set up and with the decision making abilities.

#### **COURSE:3.5 BUSINESS ETHICS**

**OBJECTIVES:** The Objectives is to provide basic knowledge of business ethics and values and its relevance in modern context.

**OUTCOME:** Students have been acquainting with the ethics of business and values concerning the society.

#### **COURSE:3.6 QUALITATIVE ANALYSIS FOR BUSINESS DECISION**

**OBJECTIVES:** The objectives are to familiarize the students with various statistical techniques for their application in business decision.

**OUTCOME:** The students have been familiarized with the statistical tools, techniques and their application in the field of business.

#### **COURSE:3.7 PUBLIC RELATIONS AND CORPORATE COMMUNICATION**

**OBJECTIVES:** The objective is to create awareness among the students on the soft skills required to plan and pursue a career and empower them with employability skills.

**OUTCOME:** The students were taught of career oriented and employable soft skills.

## IV SEMESTER

**COURSE:4.3 ADVANCE CORPORATE ACCOUNTING****OBJECTIVES:** The objective is to enable the students to develop awareness about corporate accounting in confirming with the provision of company's act and latest amendments there to with adoption of accounting standards.

**OUTCOME:** Students were taught to the corporate accounting system and the latest amendments with this regard to corporate accounting concepts.

### **COURSE:4.4 COST ACCOUNTING**

**OBJECTIVES:** The objectives of this subject are to familiarize students with the various concepts and elements of cost.

**OUTCOME:** Students were introduced and familiarized with the concepts and elements of cost.

### **COURSE:4.5 – E-BUSINESS AND ACCOUNTING**

**OBJECTIVES:** The objectives of the subject are to familiarize the students with E-commerce models and tally.

**OUTCOME:** Students have been familiarized with the models of E-commerce and new version of tally.

### **COURSE: 4.6 – STOCK AND COMMODITY MARKETS**

**OBJECTIVES:** The objectives are to provide students with a conceptual framework of stock markets and commodity markets, functionaries in these markets and their mode of trading.

**OUTCOME:** Students have been provided with the knowledge of stock markets, commodity markets and their mode of trading.

### **COURSE:4.7 – PRINCIPLES OF EVENT MANAGEMENT**

**OBJECTIVES:** The objectives are to provide students with a conceptual framework of event management, event services, conducting event and managing public relations.

**OUTCOME:** Students were provided with the skills of event management and managing public relations.

## **V SEMESTER**

### **COURSE:5.1: ENTREPRENEURSHIP DEVELOPMENT**

**OBJECTIVE:** To enable students to understand the basic concepts of Entrepreneurship and preparing a business plan.

**OUTCOME:** to make and create the budding entrepreneur to self employed in modern India.

### **COURSE:5.2: INTERNATIONAL FINANCIAL REPORTING STANDARDS**

**OBJECTIVE:** To enable students to understand the need and method of presentation of financial statements in accordance with the International Financial Reporting Standards

**OUTCOME:** To expose the students in International Business for financial decisions.

### **COURSE:5.3: INCOME TAX**

**OBJECTIVE:** To expose students to the various provisions of Income Tax Act,1961 relating to computation of Income of Individuals.

**OUTCOME:** To enable students to acquaint that every assessee to be self relevant for assessing their income tax liability.

### **COURSE:5.4: COSTING METHODS**

**OBJECTIVE:** To familiarize students on the use of cost accounting system in different nature of business.

**OUTCOME:** To enable students to know different cost segment and reduction in the cost of production and to compete with global market.

### **COURSE:5.5: ADVANCED ACCOUNTING**

**OBJECTIVE:** the objective is to acquaint the students and make familiarize with the process and preparation of accounts of different types of organization.

**OUTCOME:** To enable students to prepare financial statements according to standard accounting practices.

**COURSE:5.3: GOODS AND SERVICES TAX**

**OBJECTIVE:** To provide an insight into practical aspects and apply the provisions of GST laws to various situations.

**OUTCOME:** To enable students to calculate both the central and state GST for all goods and services.

**VI SEMESTER**

**COURSE:6.1 BUSINESS REGULATIONS**

**OBJECTIVE-** To introduce the students to various business regulations and familiarize them with common issues of relevance.

**OUTCOME-** Students were acquainted about various business laws and common issues in the present scenario.

**COURSE:6.2 PRINCIPLES AND PRACTICE OF AUDITING**

**OBJECTIVE-** The subject aims at imparting knowledge about the principles and methods of auditing and their applications.

**OUTCOME-** Students acquainted knowledge about the principles, methods and applications of Auditing.

**COURSE:6.3 INCOME TAX –II**

**OBJECTIVE-** The objective of the subject is to make the students to understand the computation of taxable income and tax liability of individuals.

**OUTCOME-**Students learnt about computation of taxable income and tax liability of individuals.

**COURSE: 6.4 MANAGEMENT ACCOUNTING**

**OBJECTIVE-**The objective of this subject is to enable the students to understand the analysis and interpretation of financial statements with a view to prepare management reports for decision making.



**OUTCOME-** Students have understood analysis and interpreting financial statements and also to prepare financial reports to take decisions.

**COURSE:6.5 BUSINESS TAXATION**

**OBJECTIVE-** The objective is to enable the students to understand assessment of firms and companies with regard to Income Tax Act 1961 and to study the other existing indirect tax provisions on goods under GST.

**OUTCOME-**Students were acquainted the assessment of firms and companies according to Income Tax Act 1961 and also on goods not covered under GST

**COURSE:6.6COST MANAGEMENT**

**OBJECTIVE-**The objective is to enable the students to understand the techniques used to control as well as to reduce the cost.

**OUTCOME-** Students were taught the tools and techniques to control and reduce the cost

**BACHELOR OF BUSINESS ADMINISTRATION PROGRAMME**

**PROGRAMME: BBA**

**OBJECTIVES:**

- Expose the students to various subjects such as accounting, business law, ethics, economics, finance, management information system and marketing and organization behaviour.
- To develop employability skills in various sector namely chemical companies, health sector, construction companies, grocery sector.
- To develop the students for competitive examinations.
- To develop as ethical managers with interdisciplinary knowledge.

**OUTCOMES:**

- Student were developed to take the responsibility of full line of finance, marketing, and human resource, functions of the company with special reference to SME.
- Developed to take up global opportunities as middle level managers.
- Develop to become young entrepreneurs.
- To make use of opportunities in professional courses and to take up post graduation programs namely., M.Com, M.B.A, MIB and MTTM.

**I SEMESTER****COURSE:1.3 FUNDAMENTALS OF ACCOUNTING****OBJECTIVES:**

- To acquaint students with the accounting concepts, tools, and techniques influencing business organisations.
- To familiarize the students to evaluative techniques to practice.

**OUTCOME:**

- Understand the financial statements of the company.
- To maintain book keeping. Prepare final accounts and cash book.

**COURSE:1.4 BUSINESS ORGANISATION AND ENVIRONMENT****OBJECTIVES:**

- To familiarize the students with aspects of business organization and its environment.
- To study the organization structure , apply principles of Management in organisations.

**OUTCOME:**

- Students will be able to be self-reliance in decision-making
- Students will develop managerial skills, critical handling situation as role managers.

**COURSE:1.5 QUANTITATIVE METHODS FOR BUSINESS**

**OBJECTIVES:**

- To provide basic knowledge of quantitative methods and their application to commercial situations and for decisions making in business.
- To make students to acquaint analytical skills, creative problem solving skills.

**OUTCOME:**

- To develop critical thinking, creative problem solving approach
- To make logical decision-making in production sector.

**COURSE:1.6 MANAGEMENT PROCESS:****OBJECTIVES:**

- To familiarize the students with concepts and principles of Management
- To initiate the students to take up challenges and develop managerial decision making in critical situations.

**OUTCOME:**

- To develop leadership skills, Time management, Effective persuasive written and oral communication skills.
- Manage the things effectively and art of getting things done through and with the people.

**II SEMESTER****COURSE:2.3. FINANCIAL ACCOUNTING****OBJECTIVES:**

- To acquaint students with the accounting concepts, tools, and techniques influencing business organizations.
- To familiarize the students to evaluative techniques to practice.

**OUTCOME:**

- Understand the financial statements of the company.
- To maintain book keeping and to prepare final accounts and cash book.

**COURSE:2.4 QUANTITATIVE METHODS FOR BUSINESS-II****OBJECTIVES:**

- To provide basic knowledge of quantitative methods and their application to commercial situations and for decisions making in business.
- To make students to acquaint analytical skills, creative problem solving skills.

**OUTCOME:**

- To develop critical thinking , creative problem solving approach
- To make logical decision-making in production sector.

**COURSE:2.5 ORGANISATION BEHAVIOUR**

**OBJECTIVES:**

- To enable the students to understand the organization behavior, and organizational change and dynamics of groups.

**OUTCOME:**

- To enable the students understand organizational behavior and organizational structure.

**COURSE:2.6 PRODUCTION AND OPERATIONS MANAGEMENT**

**OBJECTIVES :**

- The objective of the subject is to make the students understand the concepts of production and operations management of an industrial undertaking and the benefits of automation.

**OUTCOME:**

- To enable students with production operations management in industrial sector.

**III SEMESTER**

**COURSE:3.2 SOFT SKILLS FOR BUSINESS**

**OBJECTIVES:**

- The objective is to develop both oral and written communication skills relating to organizational and business issues.

**OUTCOME:**

- To develop in writing effectively letter for written and oral communication

**COURSE:3.3 CORPORATE ACCOUNTING**

**OBJECTIVE:**

- The objective of this subject is to enable the students to have a comprehensive understanding about the provisions of the Company's Act and Corporate Accounts.

**OUTCOME:**

- To make to equip in company accounts.

**COURSE:3.4 HUMAN RESOURCE MANAGEMENT****OBJECTIVES:**

- The objective is to familiarize the students with concepts and principles of Human Resource Management

**OUTCOME:**

- To have a good interpersonal relationship between management and co-workers good human resource development skills.

**COURSE:3.5 BUSINESS REGULATIONS****OBJECTIVES:**

- The objective is to introduce the students to various regulations affecting business and to familiarize the students with such regulations.

**OUTCOME:**

- To acquire business, corporate laws and to know recent amendments .

**COURSE:3.6 CORPORATE ENVIRONMENT****OBJECTIVES:**

- The objective is to enable the students to get familiarized with the existing Company Law and Secretarial practice

**OUTCOME :**

- To become good manager, company secretary , to know the qualities of secretary.

**COURSE:3.7 BUSINESS ETHICS****OBJECTIVES:**

- The objective is to provide basic knowledge of business ethics and values and its relevance in modern context.

**OUTCOME :**

- To be a good ethical manager, and follow ethics and values in making decisions in a organization.

**IV SEMESTER****COURSE:4.2 BUSINESS RESEARCH METHODS****OBJECTIVES:**

- The objective is to create an awareness of the Process of Research, the tools and techniques of research and generation of reports.

**OUTCOME:**

- To create inquisitiveness in research , subject knowledge, research methodology.

**COURSE:4.3 MARKETING MANAGEMENT****OBJECTIVES:**

- The objective is to enable students to understand the concept of marketing and its applications and the recent trends in Marketing.

**OUTCOME:**

- To acquire Marketing skills to sell the products in the market, to manage marketing outlets.

**COURSE:4.4 FINANCIAL MANAGEMENT****OBJECTIVES:**

- The objective is to enable students to understand the basic concepts of Financial Management and the role of Financial Management in decision-making.

**OUTCOME:**

- To develop the students to acquire financial aspects of business and acquire the skills of finance manager.

**COURSE:4.5 SERVICES MANAGEMENT****OBJECTIVES:**

- The objective is to familiarize the students with different services and prepare them with requisite skills to manage services.

**OUTCOME:**

- To develop the skills to work in different service industries.

**COURSE:4.6 BANKING REGULATIONS & OPERATIONS****OBJECTIVES:**

- The objective is to familiarize the students to understand the law and practice of banking.

**OUTCOME:**

- To understand the banking sector, its working , amendment acts , how to deal with customer.

**COURSE:4.7 COST ACCOUNTING****OBJECTIVES:**

- The objective of this subject is to familiarize students with the various concepts and element of cost.

**OUTCOME:**

- To equip the students to learn costing methods of different organisations and to learn elements of cost.

**V SEMESTER****COURSE:5.1 ENTREPRENEURIAL MANAGEMENT****OBJECTIVES:**

- The objective is to enable students to understand the basic concepts of entrepreneurship and prepare business plan to start a small industry

**OUTCOME:**

- To develop entrepreneurial skills, to start small scale industries, write feasibility reports.

**COURSE:5.2 COMPUTER APPLICATION IN BUSINESS****OBJECTIVES:**

- The objective of the subject is to make the students understand the concept of information systems used in business and to know the latest trends in doing business in internet environment.

**OUTCOME**

- To equip to computer to learn tally, application to business .

### **COURSE:5.3 INVESTMENT MANAGEMENT**

#### **OBJECTIVES:**

- To enable develop skills in analyzing various types of securities.
- To develop necessary skills in students to design and revise a portfolio of securities

#### **OUTCOME:**

- To get acquainted and familiarize the s students with tools of securities.

### **COURSE:5.4 MANAGEMENT ACCOUNTING**

#### **OBJECTIVES:**

- The objective of this subject is to enable the students to understand the analysis and interpretation of financial statements with a view to prepare management reports for decision-making

#### **OUTCOME:**

- To develop analytical skills and financial statements presentation to management.

### **ELECTIVE GROUPS**

#### FINANCE GROUP

### **COURSE: 5.5 ADVANCED FINANCIAL MANAGEMENT**

#### **OBJECTIVES:**

- The objective is to familiarize the students with Advanced Financial Analysis and Decisions.

#### **OUTCOME:**

- To equip the students with analytical skills and accounting skills.

### **COURSE:5.6 FINANCIAL MARKETS & SERVICES**

#### **OBJECTIVE:**

- The objective is to familiarize the students with Traditional and Modern Financial Services

#### **OUTCOME:**

- To develop the stock markets dealing transactions.



## **VI SEMESTER**

### **COURSE:6.1 INTERNATIONAL BUSINESS**

#### **OBJECTIVES:**

- The objective of this subject is to facilitate the students in understanding International Business in a multi-cultural world.

#### **OUTCOME:**

- To equip the students to know international concepts and trade relations.

### **COURSE:6.2 E-BUSINESS**

#### **OBJECTIVES:**

- The objective is to expose the students to electronic modes of commercial operations.

#### **OUTCOME:**

- To make students to know about e-business, e commerce and online marketing.

### **COURSE:6.3 INCOME TAX**

#### **OBJECTIVES:**

- The objective of this subject is to expose the students to the various provision of Income Tax Act relating to computation of Income individual assesses only.

#### **OUTCOME:**

- To familiarize the tax rules and regulations.

### **COURSE:6.4 STRATEGIC MANAGEMENT**

#### **OBJECTIVES:**

- The Objective of this subject is to expose the students to the various strategic issues such as strategic planning, implementation and evaluation etc. and preparation of project reports.

#### **OUTCOME:**

- To acquire the skills of strategic management.

## **ELECTIVE GROUPS**

### **FINANCE GROUP**

#### **COURSE:6.5 INTERNATIONAL FINANCE**

##### **OBJECTIVES:**

- To familiarize the students with International Financial environment, instruments and institutions.

##### **OUTCOME:**

- To develop the stock markets dealing transactions.

#### **COURSE:6.6 STOCK AND COMMODITY MARKETS**

##### **OBJECTIVES:**

- The objective is to provide students with a conceptual framework of Stock Markets and Commodity Markets, functionalities in these markets and their mode of trading.

##### **OUTCOME:**

- To develop the stock markets dealing transactions.

### **M.COM**

### **PROGRAMME**

##### **OBJECTIVES:**

- The broad objective of the Master of Commerce programme is to impart to the students, professional education training in various aspects of business and its environment
- provide them with opportunities to develop managerial and analytical skills in order to meet the challenges of business at the national and global level

**OUTCOMES:**

- students have been acquainted with the professional knowledge, and trained in various aspects of business and its environment
- Students have got various opportunities in job market as a lecturer, manager, and entrepreneur.
- Students have cleared various competitive examinations like NET SLET and KAS and IAS prelims.

**I SEMESTER****COURSE: MONETARY SYSTEM****OBJECTIVES:**

- To expose students to domestic and international monetary systems
- To enable students to understand principles and systems of note issue
- To familiarize with issues relating to conversion of currencies.

**OUTCOME:**

- Students have been acquainted with the knowledge of domestic and international monetary systems
- Students have been familiarized with the various principles and systems of note issue
- Students have understood the issues relating to conversion of currencies.

**COURSE: INTERNATIONAL BUSINESS****OBJECTIVES:**

- To familiarize the students with the concepts, functions and practices of international business.
- To enable them get global perspective on issues related to business.

**OUTCOME:**

- Students have been familiarized with the concepts, functions and practices of international business.
- Students have been understood the global perspective on issues related to business

**COURSE: MACRO ECONOMICS FOR BUSINESS DECISIONS:****OBJECTIVES:**

- To familiarize students with key macro economic variables and their behaviour, and enable them in critically evaluate different economics.
- To enable students to integrate macroeconomic analysis into business decisions.

**OUTCOME:**

- Students have been familiarize with the key macro economic variables and their behaviour, and got evaluative skills of different economics.
- Students have been acquired with the macro economic analysis skill in various business decisions.

**COURSE: INFORMATION SYSTEM AND COMPUTERS:****OBJECTIVES:**

- To familiarize students with aspect of business information systems and relevant information technology.
- To develop skills to design and implement simple computer based business and audit information systems.

**OUTCOME:**

- Students have been familiarized with the aspect of business information systems and relevant information technology.
- Students have been acquainted with the skills to design and implement simple computer based business and audit information systems.

## **COURSE: ADVANCED FINANCIAL MANAGEMENT**

### **OBJECTIVES:**

- To impart the knowledge in advanced techniques of financial management
- To enable the students to apply the techniques in financial decision making.

### **OUTCOME:**

- Students have acquainted with the knowledge of advanced techniques of financial management
- Students have been familiarized with the various skills to apply the techniques in financial decision making.

## **COURSE: HUMAN RESOURCE MANAGEMENT:**

### **OBJECTIVES:**

- To expose the students to the principles and practices of human resources management
- To make students internalize good HR practices

### **OUTCOME:**

- Students have got knowledge about the principles and practices of human resources management
- Students have been acquainted with various skills of HR practices

## **COURSE: COMMUNICATION SKILLS:**

### **OBJECTIVES:**

- To sharpen The analytical, written, non-verbal, spoken communication And interpersonal skills essential in organizations involving decision making implementation
- To demonstrate good team work and negotiation skills.

**OUTCOME:**

- Students have acquainted with the knowledge of analytical, written, non-verbal and spoken communication and interpersonal skills to build their future career.
- Students have got knowledge about the team work and negotiation skills.

**II SEMESTER****COURSE: INDIAN BANKING:****OBJECTIVES:**

- To expose the students to Indian banking system along with the latest reforms in banking.
- To enable the students to understand prudential norms and new technologies in banking.

**OUTCOME:**

- Students have got the knowledge about the Indian banking system along with the latest reforms in banking
- Students have acquainted with the knowledge of prudential norms and new technologies in banking.

**COURSE: RISK MANAGEMENT:****OBJECTIVES:**

- To provide basic knowledge of risk, type of risks and tools of risk management.

**OUTCOME:**

- Students have been acquired the knowledge of risk, type of risks and tools of risk management skills.

**COURSE: ADVANCED E-COMMERCE AND MOBILE COMMERCE**

**OBJECTIVES:**

- To provide the students an analytical and technical framework to understand the emerging world of commerce and mobile commerce.
- To familiarise with the rapidly changing technology and business models.

**OUTCOME:**

- Students have been acquainted with the knowledge of analytical and technical framework of commerce and mobile commerce.
- Students have been familiarised with the rapidly changing technology and business models.

**COURSE: BUSINESS RESEARCH METHODS:**

**OBJECTIVES:**

- To familiarize students with concepts, tools and techniques of the methodology of business research
- To enable students to do a research/consultancy project in the fourth semester

**OUTCOME:**

- Students have been familiarize with concepts, tools and techniques of the methodology of business research
- It enables students to do a research/consultancy project in the fourth semester

**COURSE: OPERATIONS RESEARCH AND QUANTITATIVE TECHNIQUES:**

**OBJECTIVES:**

- To impart knowledge in concepts and tools of OR and QT
- To make students apply these in managerial decision making.

**OUTCOME:**

- Students have been acquired the knowledge in concepts and tools of OR and QT
- Students have been acquainted the applied skills in managerial decision making

**COURSE: BUSINESS MARKETING:**

**OBJECTIVES:**

- To facilitate in-depth understanding of similar and differences between business to business marketing and consumer marketing.
- To equip students, with application tools towards formulating and implementing business marketing strategies.

**OUTCOME:**

- Students have been understood the similar and differences between business to business, marketing and consumer marketing.
- Students have been acquainted with the application tools towards formulating and implementing business marketing strategies.

**COURSE: MICRO FINANCE:**

**OBJECTIVES:**

- To make the students understand the concept of financial benefits and RBI guidelines to Micro Finance.
- To have o overview of different players, institutions and regulatory agencies influencing the micro finance activity.
- To examine and compare the changing scenario of the rural people with the use of micro finance.

**OUTCOME:**

- Students have understood the concept of financial benefits and RBI guidelines to Micro Finance.



- Students have been familiarized with the different players, institutions and regulatory agencies influencing the micro finance activity.
- Students have understood the changing scenario of the rural people with the use of micro finance.

### **III SEMESTER**

#### **COURSE: BUSINESS ETHICS AND CORPORATE GOVERNANCE**

##### **OBJECTIVES:**

- To make the student conscious about ethical values in real life and in business.
- To make students internalize ethical values and practices.

##### **OUTCOME:**

- Students have been acquainted with the ethical values in real life and in business.
- Students have been practiced the ethical values and practices in their real life

#### **COURSE: CORPORATE FINANCIAL REPORTING**

##### **OBJECTIVES:**

- To gain expert knowledge to analyze financial statements and to familiarize with recent developments in the area of financial reporting.
- To gain ability to solve financial reporting and valuation problems.

##### **OUTCOME:**

- Students have been acquired the knowledge to analyse financial statements and to familiarize with recent developments in the area of financial reporting
- Students have gained the knowledge about how to solve financial reporting and valuation problems.

**COURSE: STRATEGIC COST MANAGEMENT – I**

**OBJECTIVES:**

- To expose the students to the internal environment of business and to enable them to formulate strategies relating to cost.

**OUTCOME:**

- Students have been acquainted with the skills of formulation of strategies relating to cost.

**COURSE: ACCOUNTING FOR MANAGERIAL DECISIONS**

**OBJECTIVES:**

- To enable students to apply cost accounting theory in management decision making process.

**OUTCOME:**

- Students have been familiarized with the cost accounting theory and skill in decision making process.

**COURSE: DIRECT TAX PLANNING**

**OBJECTIVES:**

- To give an integrated view of direct tax and apply the laws to business decisions.

**OUTCOME:**

- Students have been familiarised with the practical knowledge of direct tax and application of laws to business decisions skills.

**IV SEMESTER**

**COURSE: COMMODITY MARKETS**

**OBJECTIVES:**

- To expose students to the world of commodity markets
- To expose students to the financial instruments used in commodity markets.

**OUTCOME:**

- Students have been exposed to the world of commodity markets and financial instruments used in commodity markets.

**COURSE: CORPORATE REPORTING PRACTICES AND IND AS**

**OBJECTIVE:**

- To familiarize with recent developments in the area of financial reporting and to gain ability to solve financial reporting problems in special cases.

**OUTCOME:**

- Students have been familiarize with the recent developments in the area of financial reporting and gained ability to solve financial reporting problems in special cases.

**COURSE: STRATEGIC COST MANAGEMENT – II**

**OBJECTIVES:**

- To expose the students to the external environment of business and to enable them to formulate strategies relating to cost and pricing.

**OUTCOME:**

- Students have been acquainted with the skills of formulating strategies relating to cost and pricing.

**COURSE: GOODS AND SERVICE TAXES**

**OBJECTIVES:**

- To familiarize the students with the indirect tax laws.

**OUTCOME:**

- Students have been familiarized with the indirect tax laws and practical applicability of the tax laws.

**PROGRAMME- MBA**

**I SEMESTER**

**COURSE: 1.1 ECONOMICS FOR MANAGERS**

**OBJECTIVES:**

- To equip them with the required tools and techniques for improving their decision making skills
- To make the students aware of the various economic theories and principles

**OUTCOME:**

- The student must have micro and macro-economic perspective to understand the under pinning of management.

**COURSE: 1.2 ORGANIZATIONAL BEHAVIOUR**

**OBJECTIVES:**

- To enhance the understanding of the dynamics of interactions between individual and the organization.
- To facilitate a clear perspective to diagnose and effectively handle human behavior issues in Organizations.

- To develop greater insight into their own behavior in interpersonal and group, team, situations.

**OUTCOME:**

- The degree to which one can make an individual to think beyond self is the real outcome of the course.

**COURSE: 1.3 ACCOUNTING FOR MANAGERS**

**OBJECTIVES:**

- To enable the students gain knowledge about concepts, principles and techniques of accounting
- To enable the students use financial and cost data in planning, decision making and Control

**OUTCOME:**

- Financial statements – concepts, conventions and standards that influence preparation of financial statements
- Identifying problem areas in business through various techniques of financial statement analysis
- Managing cost – that is, controlling and reducing cost
- Recent developments in Accounting and its relevance

**COURSE: 1.4 STATISTICS FOR MANAGEMENT**

**OBJECTIVES:**

- To elevate students' awareness of data in everyday life and prepare them for a career in today's age of information.
- To impart to students, an assured level of competence, or understanding, of the basic ideas, terms, and language of statistics.
- To develop statistical literacy skills in students in order to comprehend and practice statistical ideas at many different levels.
- To promote the practice of the scientific method in our students: the ability to identify questions, collect evidence (data), discover and apply tools to interpret the data, and communicate and exchange results.

**OUTCOME:**

- At the end of this course, students will achieve statistical literacy and will be able to find ways to move beyond the-what of statistics to the how and why of statistics.

### **COURSE: 1.5 MARKETING FOR CUSTOMER VALUE**

#### **OBJECTIVES:**

- To elevate students' awareness of an organization's resources required for Marketing in today's age of information
- To develop marketing skills
- To understand the requirements of a career in marketing.

#### **OUTCOME:**

- The scope of a business' marketing management depends on the size of the business and the industry in which the business operates. Students will be able to use a company's resources to increase its customer base, improve customer opinions of the company's products and services, and increase the company's perceived value

### **COURSE: 1.6 BUSINESS AND INDUSTRY**

#### **OBJECTIVES:**

- To enumerate the fundamentals of Indian economy, business and industry
- To study the present status of Business & Industry in India
- To get a glimpse of future challenges

#### **OUTCOME:**

- The outcome of this course is the level of understanding of the dynamics of business and industry by students.

### **COURSE: 1.7 COMMUNICATION SKILLS**

#### **OBJECTIVES:**

- To sharpen the Analytical, Written, non-verbal, Spoken Communication and interpersonal Skills essential in organizations involving Decision making and implementation.
- To demonstrate good team work and negotiation skills.

**OUTCOME:**

- At the end of this course, students will have the clarity about communication skills to be used in organizations.

**II SEMESTER**

**COURSE: 2.1 TECHNOLOGY FOR MANAGEMENT**

**OBJECTIVES:**

- To elevate students' awareness of information technology and develop an in-depth and systematic understanding of key aspects of IT Management
- To help students gain a strategic perspective on business
- To evaluate the value of emerging technologies and their competitive advantage

**OUTCOME:**

- By the end of the course, students will gain the skills required to navigate through the complexities of managing data and also become the appreciators of technological environment.

**COURSE: 2.2 MANAGERIAL RESEARCH METHODS**

**OBJECTIVES:**

- To instill a comprehensive and step-wise understanding of the research process with a balanced blend of theory and applicative technique.
- To familiarize students with the types of management problems of organizations.

- To facilitate them develop insights about basic concepts of research designs and methodology aimed at solving business problems..

**OUTCOME:**

- Students can be an asset to the organization by transforming into well equipped and scientifically skilled research professionals and managers by conducting research in every aspect of decision making in the organization.

**COURSE: 2.3 ENTREPRENEURSHIP AND ETHICS**

**OBJECTIVES:**

- To inculcate the spirit and perspective of entrepreneurship among students
- To make the students job creators instead of job seekers.
- To enable the students to critically examine ethical dilemmas in entrepreneurship.

**OUTCOME:**

- At the end of the course, the students would be aware of alternative to jobs and employment which will make them job providers in an ethical manner.

**COURSE: 2.4 HUMAN CAPITAL MANAGEMENT**

**OBJECTIVES:**

- To enlighten the students on the principles and practices of HR as a capital factor
- To introduce the entire gamut of scope of HR
- To capture the changing landscape of HR

**OUTCOME:**

- The students must be in a position to address the challenges of organizational management through and with human resources. Thereby, the manager would become harbinger of change management.



## **COURSE: 2.5 FINANCIAL MANAGEMENT**

### **OBJECTIVES:**

- To provide the concepts and foundations of managing finance in business enterprises.
- To equip students with tools and techniques for managing finance.
- To orient the students regarding financial management practices in Indian companies and Global enterprises..

### **OUTCOME:**

- By the end of this course, a student would learn to identify financial challenges, tools and techniques for decisions and would get a glimpse of practices.

## **COURSE: 2.6 QUANTITATIVE TECHNIQUES AND OPERATION RESEARCH**

### **OBJECTIVES:**

- To impart knowledge in concepts and tools of OR and QT.
- To help students apply these tools in managerial decision making.

### **OUTCOME:**

- The students must develop confidence and clarity in application of tools

## **COURSE: 2.7 INNOVATION MANAGEMENT**

### **OBJECTIVES:**

- To apprise on value of innovation
- To impart skills of innovation
- To enable students think and act on innovation.

### **OUTCOME:**

- Conceptual and application clarity on innovation.

### **III SEMESTER**

#### **COURSE: 3.1 STRATEGIC MANAGEMENT AND CORPORATE GOVERNANCE**

##### **OBJECTIVES:**

- To enlighten the students with the concepts and practical applications of Strategic Management and Corporate Governance.
- To instill a comprehensive and step-wise understanding of the principles of strategy formulation and competitive analysis.

##### **OUTCOME:**

- This course will equip the students with required skills of managerial decisions and actions.
- This will enable students to transfer conceptual learning to strategic application in their professional lives.

#### **COURSE: 3.2 PROJECTS AND OPERATIONS MANAGEMENT**

##### **OBJECTIVES:**

- To impart the concepts, tools and techniques of project management
- To gain clear understanding of Operations Management
- To gain a perspective on quality improvement and cost reduction.

##### **OUTCOME:**

- At the end of the courses, the students must have better insight in to project and operations management.

#### **Marketing Specialisation:**

#### **COURSE: 3.4.1 RETAILING MANAGEMENT AND SERVICES**

##### **OBJECTIVES:**

- To understand the services domain from a marketing perspective.
- To understand retailing as a business and have a comprehensive view of the marketing and store management functions in a retailing organization.

**OUTCOME:**

- At the end of the course, student must be able to understand the essential components of a service business and manage retailing.

**COURSE: 3.4.2 CONSUMER BEHAVIOUR**

**OBJECTIVES:**

- To gain clear understanding of the factors that shape consumer behavior
- To understand various theoretical models of consumer behavior.
- To gain a perspective on consumer behaviour research and some important tools and techniques used.

**OUTCOME:**

- At the end of this course, students will be able to appreciate the importance of understanding consumer behaviour for marketing success, understand the various factors shaping consumer behaviour and choice, be able to conduct exploratory research in consumer behavior.
- And be able to use understanding of consumer behaviour in making marketing plans.

**COURSE: 3.4.3 RURAL AND AGRICULTURAL MARKETING**

**OBJECTIVES:**

- To understand the opportunities and challenges in rural marketing
- To understand the differences between Rural and Agricultural marketing.
- To evaluate different marketing strategies used in rural distribution and promotion.

**OUTCOME:**

- At the end of the course, the student must develop an appreciation for rural and agricultural marketing.

### **Human Resource Specialisation**

#### **COURSE: 3.5.1 LEARNING AND DEVELOPMENT**

##### **OBJECTIVES:**

- To enable the students to understand the concepts, principles and process of learning and development.
- To develop an understanding on various non-training solutions to improve employee performance.

##### **OUTCOME:**

- By the end of this course, a student would learn to develop an understanding of how to assess training needs and design training programmes in an Organisational setting. To familiarize the student with the levels, tools and techniques involved in evaluation of training effectiveness.

#### **COURSE: 3.5.2 INDUSTRIAL AND EMPLOYEE RELATIONS**

##### **OBJECTIVES:**

- To develop an understanding of the interaction pattern among labour, management and the State
- To build awareness of certain important and critical issues in Industrial Relations.

##### **OUTCOME:**

- By the end of this course the student would learn basic knowledge of the Indian Industrial Relations System and its distinctive features in comparison to other countries.

#### **COURSE: 3.5.3 PERFORMANCE MANAGEMENT SYSTEM**

##### **OBJECTIVES:**

- The objective of this course is to equip students with comprehensive knowledge and practical skills to improve their ability for performance appraisal in their organizations.

**OUTCOME:**

- It is particularly intended for students as future managers and supervisors who will conduct the performance appraisal of their subordinates.

**COURSE: 3.9 MANAGEMENT PERSPECTIVES**

**OBJECTIVES:**

- To enable the students to gain insight into the fundamentals of Management as a discipline.

**OUTCOME:**

- This course develops appreciation of management as a subject and discipline.

**IV SEMESTER**

**COURSE: 4.1 INTERNATIONAL BUSINESS DYNAMICS**

**OBJECTIVES:**

- To make students to learn how business organizations operate in an international environment.
- To understand the impact of international influences on business.
- To help students to plan a career in international business.

**OUTCOME:**

- By the end of the course, the students must have increased confidence to take up a career in international business..

## **Marketing Specialisation:**

### **COURSE: 4.3.1 STRATEGIC BRAND MANAGEMENT**

#### **OBJECTIVE:**

- To give students a deeper understanding of the process of brand building in a variety of business contexts, the integrated requirements for effective brand reinforcement , revitalization as well as the models, measures and impact of brand equity.

#### **OUTCOME:**

- By the end of this course, students should be able to: Understand key principles of branding, positioning and brand building strategies.

### **COURSE: 4.3.2 INTERNATIONAL MARKETING STRATEGY**

#### **OBJECTIVES:**

- To acquaint students with International Marketing knowledge and strategies.
- To help the students to solve problems of International Marketing and sales practice.
- To assist the students to specialize in marketing within an international context.
- To guide the students on International Documentation
- To help the students to channelize the fruits of Emerging Markets with an opportunity perspective.

#### **OUTCOME:**

- Students will be able to evaluate the various forces when products and services enter the global marketplace..

### **COURSE: 4.3.3 DIGITAL MARKETING**

#### **OBJECTIVES:**

- To understand the basics of digital marketing.
- To develop a comprehensive digital marketing strategy

- To be able to use new media such as search engine and social networking..

**OUTCOME:**

- By the end of the course, the student will be able to evaluate the risks involved in digital marketing. It shall make them be able to attract and retain customers online.

**Human Resource Specialisation:**

**COURSE: 4.4.1 STRATEGIC HRM**

**OBJECTIVES:**

- To develop the perspective of strategic human resource management.
- Distinguish the strategic approach to human resources from the traditional functional approach.
- Appreciate SHRM in the context of changing forms of organisation.

**OUTCOME:**

- By the end of this course- a student would learn the relationship of HR strategy with overall corporate strategy and Understand the strategic role of specific HR systems.

**COURSE: 4.4.2 INTERNATIONAL HRM**

**OBJECTIVES:**

- To be able to assess the extent to which multinational companies can have company wide HRM strategies, policies and practices.

**OUTCOME:**

- By the end of this course, a student would learn a purview of the major challenges that MNC's face and to be familiar, through a real life case study, with some of the HRM issues faced by staff in a foreign subsidiary of a major multinational company.

### **COURSE: 4.4.3 TALENT AND KNOWLEDGE MANAGEMENT**

#### **OBJECTIVES:**

- To impart the knowledge on talent and knowledge management. its importance in contemporary business..

#### **OUTCOME:**

- By the end of this course, a student would learn the new concepts in talent and knowledge management and its relevance in the corporate.

### **PROGRAMME: BACHELOR OF SCIENCE, B.SC.,**

A Bachelor of Science degree is awarded at universities for completion of an under graduate level study in Science subjects. Enrolling in to B.Sc. degree program translates one's professional career. B.Sc. degree program still holds high value for both professional and personal objectives. The objective of Bachelor of Science is to encourage students to gain and develop knowledge and to develop oral , written, numerical, visual, presentation and collaborative skills appropriate to a wide range of employment

The academic field of study in B.Sc. degree programs includes Engineering & Technology, Biological & Life Sciences and the Natural Sciences etc. Students develop valuable personal skills and fulfill a prerequisite to Master studies. They can get into master's program and pursue research to become Scientists which is the remunerative and most respectable position in the society across the globe. The job opportunities with basic Science degree are plenty. Some of the sectors employing Science graduates are Agriculture, Aerospace, Biomedical, Biotechnology, Chemical, Environmental consultancy, Schools, Research & Development, Government offices, Software companies, etc. The natures of jobs they can get into are Pharmaceutical sales representative, Environmental Scientist, High School teacher, Physicist, R&D, Technical writer, Geologist, Data transformer, Environmental technician and into both Central and State Government services, banking sector etc., Science graduates are more competent to crack competitive examination as they have better analytical and reasoning skills with good aptitude.



## **Program Specific Objectives**

### **B. SC., PROGRAM IN PHYSICS, CHEMISTRY, MATHEMATICS, (PCM)**

#### **Objectives:**

- To make students understand the basic concepts of Physics, Chemistry and Mathematical sciences and explore related domains.
- To make them develop scientific temper and critical thinking
- To apply the knowledge of these concepts to analyze the problem and find the solution
- To make the students competent to crack competitive examinations
- To make them skilled and employable by providing them with practical and employable skills
- To make them skilled by teaching them to design new experiments, to apply error analysis to the experimental results and to apply the innovative methods in the analysis of experimental results etc., thus exposing them to the interesting world of science .
- To make them understand the dynamics of physical science and apply the knowledge
- To make them placed in various areas like Central Government, State Government, public sectors, DRDO, chemical industries, Institutes and IT companies , etc. Can find opportunities in the field of Science and Technology.
- To pursue post- graduation and research in Physics, Chemistry, Organic and Physical Chemistry, mathematics.
- To make them entrepreneurs as they have learnt skill oriented techniques.

#### **Outcome:**

Students have learnt the basic concepts, gained its applications, developed critical thinking. They are equipped to pursue higher studies and research in the field of physical sciences, Chemical Sciences, mathematics. They are competent enough to crack competitive exams and secure jobs in related fields. As they have learnt techniques in the subjects studies, they will find better placements and choose career as entrepreneurs.

## **OBJECTIVES AND OUT COMES**

### **PHYSICS**

#### **PAPER 01**

### **COURSE OBJECTIVES:**

- It is necessary to understand the basic concepts of first part of mechanics and Heat and thermodynamics.
- Recent advances in application oriented services are compelling the users for learning and understanding the tools for modelling and analysis of the data arising from their experiments. This syllabus is formulated to suit the above requirements.

### **COURSE OUTCOMES**

- Mechanics which teaches Newton's laws of motion and their applications.
- Concepts of gas laws, 0th, 1st, 2nd laws of thermodynamics and their applications
  
- The course aims to achieve quality in maintaining academic excellence by being open to new opportunities and challenges in the frontiers of physics .

### **PAPER 02:**

#### **COURSE OBJECTIVES:**

- The course aims to achieve clear understanding of the second part of Mechanics and Heat and thermodynamics.

#### **COURSE OUTCOME:**

- Students study Simple harmonic motion, Elasticity, where they will understand their applications in Astrophysics as well as in the study of elastic properties of different materials in technology.
- Thermodynamic potentials, Low temperature Physics and Liquefaction of gases help the students to understand the thermodynamic properties and the behaviour of many solids and gases at lower temperatures and their applications in the actual day development of technology
- Special theory of relativity and their applications which helps in understanding transition from theory to explore the study of whole universe .
  
- Encourages them to be a researcher and scientist.

### **PAPER 03**

#### **COURSE OBJECTIVES:**

- The course aims to study the electrical network theorems and their applications and basics of Electricity and Magnetism, thermoelectricity. To enhance mutual interaction and encourage cooperation between industry and academics.
- To achieve significant trades both in applied and fundamental research.

#### **COURSE OUT COME:**

- The study of basics of electrical network theorems help in developing complex networks in electronics and thereby applying them in the innovative circuits of the computers.
- By compounding the electricity and magnetism in the study of this syllabus helps the students to understand the electromagnetic properties of different materials and their novel applications in modern technology.
- The study of thermo electricity helps in studying thermoelectric properties of different materials, their applications in the construction of thermocouples and thereby applying them in technology

### **PAPER 04:**

#### **COURSE OBJECTIVES:**

- The study of Optics contains the basic concepts of the subject and thereby applying these concepts in the study of optical fibers.
- This course also contains The mathematical concepts of Fourier analysis and their applications in Physics.

#### **COURSE OUTCOMES:**

- The basics of the Optics help the students to understand the optical properties of the materials and thereby applying them in the research field.
- The study of optical fibers helps in understanding their applications in telecommunications and medical field
- The study of Fourier analysis helps to study it's applications in modern and quantum physics in research field.
- Solid state deals with x-ray crystallography which is the experimental sciences determining the atomic and molecular structure of a crystal.

### **PAPER 05 :**

#### **COURSE OBJECTIVES :**

- To enable the students in application oriented principles in Physics where they study the basics of statistical physics, quantum mechanics I, atmospheric physics and nanomaterials.

#### **COURSE OUTCOMES :**

- **Statistical physics :** To study the concepts of statistical physics and their applications in modern physics and research field.
- **Quantum mechanics I :** To study the basics of the subject and it's applications in studying the properties of nanomaterials those will be used in miniaturisation of the devices used in modern technology.
- **Atmospheric science :** This study helps to understand about the atmosphere of the Earth and to go in the field meteierology.
- **Physics of Nanomaterials :** The study of nanomaterials and their applications help the students to study the properties and applications in different fields and pursue the research.
- **Practical Physics 5:** To study the statistical analysis of radioactive decay by dice experiment
- Students will gain knowledge both in applied and fundamental research.
- They can be employed in various research organisations as a physicist or research analyst.

### **PAPER 06 :**

#### **OBJECTIVES :**

- To make the students to study the basics of Astrophysics, Solid state physics and Semiconductor physics and their applications.

#### **COURSE OUTCOMES :**

- **Astrophysics** : To impart knowledge about the different stars of the universe and the galaxies, black hole and evolution of the universe and further applying this knowledge in the research field.
- Solid state physics: The basics of this subject help in understanding different properties of the materials and their applications in technology.
- Semiconductor physics: This study helps the students to understand the basics of the subject and the application of the semiconductors in electronics and further development of technology.
- **Practical Physics 6** : This course will train the students to make use of experiments in Astrophysics, solid state physics and semiconductor transistors.
- Students may start their own entrepreneurship like research centres, manufacturing units for drugs, dyes etc.

#### **PAPER 07 :**

#### **OBJECTIVES :**

- The course offers thorough knowledge of atomic, molecular and nuclear physics.
- The course opens a study of radioactive decay and elementary particles.

#### **COURSE OUTCOMES :**

The study of atomic and molecular spectroscopy help in the analysis of the different elements and compounds present in different materials that helps in pursuing research in Physics

The study of nuclear physics helps in understanding the role of nuclear physics in national security.

- Practical Physics 7 : To analyse the atomic and molecular spectra and to analyse the decay of radioactive elements using Geiger Muller counter.
- The programme helps students to know the role of science in research field and nuclear reactors.

## **PAPER 08 :**

### **OBJECTIVES :**

- The course includes important topics of Op-amps and digital electronics, Magnetic and dielectric materials and Quantum mechanics II

### **COURSE OUTCOMES :**

- **Opamps and digital electronics :** The study of basics of this subject help the students to understand the construction of opamps and how they are applied in the miniaturisation of electronic devices used in present technology and also the application of digital electronics to the circuits of opamps.
- **Magnetic and dielectric materials:** The course explains the types of magnetic materials, their applications and basic concepts of dielectric materials that help the students to understand magnetic and dielectric properties of the materials and applications of suitable materials in modern technology.
- **Quantum mechanics II: This helps in understanding the mathematical physics behind the magnetic and dielectric properties of novel nanomaterials in order to miniaturise the devices applicable in modern technology.**

**Practical Physics 8 :** To study electronic circuits of opamps, determination of dielectric constant of a given material and the determination of magnetic dipole moment of an organic liquid.

- To get hands on experience in constructing the typical electronic circuits.
- The course helps students self employ themselves by establishing their own research centre or to become an entrepreneur in starting an electronic hardware company .
- The course helps students to teach basic sciences in schools and colleges.
- The course will help students get a scientists job in government and non-government sectors.
- They can get employments in various fields for example as technical writers / editors, physicists in industries.

## OBJECTIVES AND OUT COMES

### CHEMISTRY

#### PAPER 01

##### COURSE OBJECTIVES:

- It is necessary to understand the basic concepts of chemistry in terms of data analysis and interpretation for doing research.
- Recent advances in application oriented services are compelling the users for learning and understanding the tools for modelling and analysis of the data arising from their experiments. This syllabus is formulated to suit the above requirements.

##### COURSE OUTCOMES:

- Knowledge of maths material concepts like logarithm, relations, curves, sketching, differentiation, integration etc.. will be instructed to the students.
- Photochemistry which teaches stark – Einstein law , concepts like fluorescence , phosphorescence, luminescence, bioluminescence, Beer Lambert's law and its applications.
- Under the topic “liquid and solutions” student will be thought to learn how to determine molecular mass of a solute, steam distillation ,properties of liquid mixture etc..
- Gaseous state teaches the student to learn various properties of gases liquefaction of gases.
- Periodic table deals with brief study of elements in the periodic table.
- Analytical chemistry teaches students of handling the data obtained for a compound.
- Organic chemistry part of the syllabus deals with basic concepts preparation methods of organic compound and their applications.
- The course aims to achieve quality in maintaining academic excellence by being open to new opportunities and challenges in the frontiers of chemistry.

#### PAPER 02:

##### COURSE OBJECTIVES:

- The course aims to achieve clear understanding of the chemistry as a subject connecting with physics, mathematics and philosophy.

### **COURSE OUTCOME:**

- Quantum mechanics and atomic structure which helps in understanding transition from theory to the actual development of technology.
- Chemical bonding, silicates, noble gases. Which enables scientists to take the 100 + elements of the periodic table and continue them in various ways to form chemical compounds and materials.
- Organic chemistry – aromatic hydrocarbons and organic halogen compounds deals with mechanism of reactions understanding the way in which chemical reaction is proceed.
- Every electronic devices we use in our daily life is working on the principles of quantum physics.
- Encourages them to be a researcher and scientist.

### **PAPER 03**

#### **COURSE OBJECTIVES:**

- To enhance mutual interaction and encourage cooperation between industry and academics.
- To achieve significant trades both in applied and fundamental research.

#### **COURSE OUT COME:**

- Chemical kinetics, thermodynamics 01& 02, organic and inorganic polymers, metallurgy explain the speed of the reactions properties and applications of polymers.
- Metallurgical processes to obtain metals knowledge.
- Alcohols and thiols, organometallic compounds preparation and processes for manufacture of alcohols fertilisers like urea.
- Certain organo metallic compounds like grignarv reagent which very useful in chemical industry.
- Thermodynamic explains refrigerators nuclear , power plants, steam engines and lot more.



## **PAPER 04:**

### **COURSE OBJECTIVES:**

- Chemical processes which have been developed and commercialised in steel industry nuclear power plants , water purification technologies, fine chemical synthesis are mainly emphasized in this course.
- Environmental issues are also tackled.

### **COURSE OUTCOMES:**

- **Phase Equilibria:** Theoretical and applied research related to equilibrium and transport properties of fluids, solids and interfaces.
- **Environmental chemistry :** Teaches students to know more about the green house effect, ozone depletion, acid rain and more.
- Solid state deals with x-ray crystallography which is the experimental sciences determining the atomic and molecular structure of a crystal.
- Water technology, powder metallurgy, steel, nuclear and radio chemistry – these topics deals with various technologies in which students will have to be equipped with in order to be good chemists.
- Organic chemistry section deals with various methods of manufacture of aldehydes, ketones, carboxylic acids etc..
- There is a vast scope in private or in government sectors for the environmental sciences degree holders.
- Candidates with MSc degree in environmental science can find many creative carrier opportunities in India as well as abroad.

## **PAPER 05 :**

### **COURSE OBJECTIVES :**

- To enable the students in application oriented principles in chemistry where the analysis of structure and property of a substance using various techniques like spectra and other electro-analytical methods.

### **COURSE OUTCOMES :**

- **Stereochemistry :** To know stereochemistry and various possible conformations of organic compounds and to study structure-property relationship.

- **Amines** : To study the various types of amines their properties and applications.
- **Heterocyclic Compounds** : To get a brief idea about classification and reaction of heterocyclic compounds like pyrrole, thiophen, pyridine etc.
- **Chemistry of Natural Products** : To study carbohydrates their classification, importance, elucidation of their structures.
- Study of general characteristics of some alkaloids like nicotine, caffeine, morphine etc.
- **Spectroscopy of Organic Compounds** : To know the basic principles of organic spectroscopy.
- To know the various techniques of organic spectroscopy and analysis of the data obtained.
- To study the origin, instrumentation and important application of UV, NMR and IR techniques.
- **Industrial Organic Chemistry** : To give a brief information about drugs and dyes.
- Classification of drugs their application will be discussed.
- Preparation of drugs and dyes.
- Application of green chemistry in the synthesis of drugs.
- **Practical Chemistry 5**: To analyse the given organic compound and to identify the compound with the help of chemical reactions.
- Students will gain knowledge both in applied and fundamental research.
- They can be employed in various research organisations as a chemist or research analyst.

### **PAPER 06 :**

#### **OBJECTIVES :**

- To train the students in electrochemical skills and to use spectroscopy, electroanalytical methods to analyse chemical compounds.

#### **COURSE OUTCOMES :**

- **Electrochemistry I** : To impart knowledge about conductance.
- Principles involved in conductometric and potentiometric titrations.
- Various laws to describe the degree of dissociation of an electrolyte.
- **Electrochemistry II** : To understand the principle behind the working of electrochemical cells, batteries.

- To study emf and calculation of emf.
- Application of electrochemical cells.
- **Physical Properties & Molecular Structures** : Basic principles behind magnetic property of a substance to be studied.
- Electrical properties of solid to be studied.
- **Chemical Spectroscopy I** : To understand the interaction of radiation with matter.
- In depth study of electromagnetic spectrum and its role in spectroscopy
- **Chemical Spectroscopy II** : Simple harmonic oscillation and understanding the vibrational spectra of a polyatomic molecule.
- **Raman Spectroscopy** : To get an insight into works of Sir C.V. Raman and his contribution to spectroscopic analysis of a chemical compound.
- Principles of Raman Spectroscopy
- **Electroanalytical Methods** : This course will provide and insight into the basic concepts and principles that are essential to chemistry.
- To learn quantitative analysis using technologically advanced instruments like cyclic voltammetry
- **Practical Chemistry 6** : This course will train the students to make use of electrochemical experiments in analysing the chemical compounds
- Students may start their own entrepreneurships like research centres, manufacturing units for drugs, dyes etc.

### **PAPER 07 :**

#### **OBJECTIVES :**

- The course offers thorough knowledge of organic and inorganic materials their structure and properties and applications.
- The course opens an avenue into Industrial application of these materials

#### **COURSE OUTCOMES :**

- **Co-ordination & Organometallic Compounds I** : The course helps students to explore the world of co-ordination compounds
- To know the structure and bonding in co-ordination compounds
- To understand the magnetic properties of complexes.

- To synthesize organometallic compounds.
- **Co-ordination & Organometallic Compounds II** : The course emphasises on the study of structure and application of co-ordination complexes and some organometallic compounds.
- **Industrial Materials I** : Industrially important materials like refractories, glass, ceramics, cement are studied in this course.
- The course illustrates composition and manufacturing processes of these materials.
- **Industrial Materials II** : The course is the continuation of the study of industrial materials.
- Paints and Varnishes, Fuels, Explosives, Propellants are death with.
- **Bioinorganic Chemistry** : Course tells is about the essential and trace elements in biological systems and their roles in biological systems.
- **Chemistry of Newer Materials** : The course gives an insight into an application oriented field
- Principles behind conducting polymers, superconductors, Fullerenes, Nanomaterials and their applications are discussed here.
- Practical Chemistry 7 : To analyse a given compound using titrimetric method using complexometric titrations.
- The programme helps students to know the role of science in Industry

### **PAPER 08 :**

#### **OBJECTIVES :**

- The course includes important topics of biochemistry. It gives fundamental knowledge of very important topics in biochemistry.

#### **COURSE OUTCOMES :**

- **Introduction to Biochemistry** : Contributions of scientists like Watson, Crick, Chargaff, H. G. Khurana etc to the field of scientists is being discussed.
- **Carbohydrates** : The course explains the structure and properties of carbohydrates
- **Lipids** : The course comprises the study of structure and classification of fatty acids.
- **Proteins** : Course is the study of amino acids, structure of proteins, classification of proteins are also being taught herein.
- **Nucleic Acids** : The course comprises of topics on types of Nucleic Acids, structure of DNA and RNA.
- Biological roles of DNA and RNA.

- **Hormones** : The course comprises the study of classification of hormones.
- Role of insulin and glucagon in glucose homeostasis.
- **Enzymes** : The course gives a brief idea of classification of enzymes, enzyme substrate interactions, enzyme kinetics etc.
- **Biological Oxidation** : This course involves the study of bioenergetics
- Structural feature of ATP
- To study the Mitochondrial electron transport chain
- To study the biological techniques like chromatography and electrophoresis.
- **Metabolism** : To study about carbohydrate metabolism.
- To study about fatty acid metabolism.
- To know the protein metabolism.
- **Molecular Biology** : To study DNA replication
- To study DNA fingerprinting
- **Practical Chemistry 8** : To learn the principle behind colorimetry.
- To learn the techniques of quantitative analysis of the biological compounds like creatinine, glucose etc.
- To get hands on experience in using colorimeters.
- The course helps students self employ themselves by establishing their own research centre or diagnostic centres or industries.
- The course helps students to teach basic sciences in schools and colleges.
- The course will help students get a scientists job in government and non-government sectors.
- They can get employments in various fields for example as technical writers / editors, biostatisticians, clinical research managers.

## **OBJECTIVES AND OUT COMES**

### **MATHEMATICS**

#### **OBJECTIVES**

- To improve retention of mathematical concepts in the student.
- To develop a spirit of inquiry in the student.
- To improve the perspective of students on mathematics as per modern requirement.

- To initiate students to enjoy mathematics, pose and solve meaningful problems, to use abstraction to perceive relationships and structure and to understand the basic structure of mathematics.
- To enable the teacher to demonstrate, explain and reinforce abstract mathematical ideas by using concrete objects, models, charts, graphs, pictures, posters with the help of FOSS tools on a computer.
- To make the learning process student-friendly by having a shift in focus in mathematical teaching, especially in the mathematical learning environment.
- Exploit techno-savvy nature in the student to overcome math-phobia.
- Propagate FOSS (Free and open source software) tools amongst students and teachers as per vision document of National Mission for Education.
- To set up a mathematics laboratory in every college in order to help students in the exploration of mathematical concepts through activities and experimentation.
- To orient students towards relating Mathematics to applications.
- To remedy Math phobia through authentic learning based on hands-on experience with computers.
- To foster experimental, problem-oriented and discovery learning of mathematics.
- To show that ICT can be a panacea for quality and efficient education when properly integrated and accepted.
- To prove that the activity-centered mathematics laboratory places the student in a problem solving situation and then through self exploration and discovery habituates the student into providing a solution to the problem based on his or her experience, needs, and interests.
- To provide greater scope for individual participation in the process of learning and becoming autonomous learners.
- To provide scope for greater involvement of both the mind and the hand which facilitates cognition.
- To ultimately see that the learning of mathematics becomes more alive, vibrant, relevant and meaningful; a program that paves the way to seek and understand the world around them. A possible by-product of such an exercise is that math-phobia can be gradually reduced amongst students.
- To help the student build interest and confidence in learning the subject.

**COURSE CODE- SM1C1S: Mathematics Paper-I:** Matrices, Differential & Integral calculus, Analytical Geometry

**Course Objective :** To bridge the topics of Mathematics at pre university and higher education.

**Course Outcome:** Students gained knowledge in basic differential calculus & integral calculus in broad spectrum and analytical geometry that helped them understand the equations of geometrical figures.

**COURSE CODE- SM1C2S: Mathematics Paper-II:** Groups, Differential & Integral calculus, Differential Equations

**Course Objective :** To introduce the applications of calculus to different fields.

**Course Outcome:** It enhanced the ability of students in the area of calculus and its applications in Differential equations

**COURSE CODE- SM1C3S: Mathematics Paper-III,** Group theory, Sequences & Series, Differential Calculus

**Course Objective :** To introduce Basic concept of abstract algebra and analysis so as to increase the ability of understanding the functions through its behavior.

**Course Outcome:** Students learnt the basic concepts of abstract algebra and mathematical analysis through the introduction of Sequences & Series, it increased their ability to analyze the functions

**COURSE CODE- SM1C4S: Mathematics Paper-IV,** Group theory, Differential Calculus, Fourier Series, Laplace transforms, Differential equations

**Course Objective :** Application of calculus, solving differential equations by Laplace transforms, finding Fourier Series of continuous functions, to increase the inter disciplinary relation between Mathematics and Physics.

**Course Outcome:** Students learnt the new mathematical tool to solve differential equations through Laplace transforms and the approach mathematical applications of Fourier series in physics research field

**COURSE CODE- SM1C51: Mathematics Paper-V,** Ring theory, Vector differential calculus, Numerical methods

**Course Objective :** Introduction of abstract algebra and Vector differential calculus, to open a new dimension in the young minds to know the branches of Mathematics and its applications.

**Course Outcome:** Students gained the basic knowledge of abstract algebra and mathematical physics concepts in vector calculus, it increased their ability to understand subject.

**COURSE CODE- SM1C52: Mathematics Paper-VI,** Calculus of Variations, Line & multiple integrals, Integral theorems

**Course Objective :** Introduction of Calculus of Variations, Line & multiple integrals and Integral theorems, to increase their ability to understand the geometrical concepts through integration.

**Course Outcome:** Students gained the skill to solve the integral problems that are related to plane and space curves and figures and also their mutual relations. Calculus of variations increased their ability to understand the extremum problems related with natural science.

**COURSE CODE-** SM1C61: **Mathematics Paper-VII**, Linear Algebra, Partial Differential equations

**Course Objective :** To introduce Modern algebra concepts and Partial differential equations to create awareness of applications

**Course Outcome:** Enhanced the ability of applying partial differential equations in physical concepts and modern algebra to different fields.

**COURSE CODE-** SM1C62: **Mathematics Paper-VIII**, Complex Analysis, Numerical Analysis

**Course Objective :** To introduce Complex Analysis to create interest in imaginary field and Numerical Analysis, to make them calculative with data and numbers.

**Course Outcome:** Enhanced the knowledge in complex numbers, complex field and its transformations. Finding the solutions by numerical methods increased their confidence of solving statistical and data based problems.

## **COMPUTER SCIENCE**

### **OBJECTIVES AND OUT COMES**

#### **Program outcomes of B.Sc.(PMCs):**

- Prepare students for prominent career in IT industry, banks, office and for further academic study
- Apply problem solving skills and knowledge of computer science to solve real world problems
- Programming labs and project labs strengthen the domain knowledge
- Ethical and social awareness among the students will be created



- Train up the students to meet the current requirement of the IT industries
- Students can get wide range of IT courses to fulfill the career opportunities
- Improve communication and business management skills, especially in providing technical support.
- Develop the skills to present ideas effectively and efficiently

**Course outcomes:**

**COURSE CODE-** CS1T, Programming Concepts using C

**Course Outcome:** Understand the basics of computer and understand the problem solving aspect. Designing the algorithm and flow chart for the given problem. Demonstrate the concept of arrays, pointers, strings, structures and perform I/O operations

**COURSE CODE-** CS2T, Data Structures

**Course Outcome:** Understand the concept of Dynamic memory management, data types, algorithms, Understand basic data structures such as arrays, linked list, stacks and queues, Implement operations like searching, insertion and deletion, traversing mechanism etc. on various data structures. Study the details of Searching Techniques

**COURSE CODE-** CS3T , Database Management System and Software Engineering

**Course Outcome:** Understand the functional components of DBMS, Develop queries using relational algebra and SQL, Design a database schema, develop E-R model, Understand the various theories involved in software development life cycle, Study the different architectures involved in software design

**COURSE CODE-** CS4T, Operating System and UNIX

**Course Outcome:** Understand the architecture of OS, Analyzing the different scheduling algorithms for OS , Develop application programs using UNIX system calls, Implement UNIX system commands, Understand filters, network management and backup utilities

**COURSE CODE-** CS5T1, Object Oriented Programming using JAVA

**Course Outcome:** Apply object oriented approach to design software, Implement programs using classes and objects, Design and develop GUI programs, Develop applets for web applications

**COURSE CODE-** CS5T2, Visual Programming

**Course Outcome:** Understand Visual Basic Applications ,Develop a GUI based on problem description ,Develop and debug Applications using Visual Basic IDE,develop the project with database using ODBC, DAO, ADO and visual data manager

**COURSE CODE-** CS6T1, Web Programming

**Course Outcome:** Analyze and build dynamic interactive web pages,Demonstrate the important HTML tags for designing static pages ,Student will be able to write a well formed / valid XML, document.,A student can use internet technologies for building sites

**COURSE CODE-** CS6T2, Computer Networks

**Course Outcome:** Understand OSI/TCP IP model, Study of MAC layer protocols,Implement routing and congestion control algorithms,Understanding the elements of data communication, network systems and transmission medium, Analysing Error Detection and Corrections Algorithms,Studying in detail about Network Security.

### **Program Specific Objectives**

#### **B. SC., PROGRAM IN CHEMISTRY, BOTANY, ZOOLOGY (CBZ)**

##### **Objectives:**

- To make students understand the basic concepts of Chemical, Plant (Botany) and Animal (Zoology) sciences and explore related domains.
- To make them develop scientific temper and critical thinking
- To apply the knowledge of these concepts to analyze the problem and find the solution
- To make the students competent to crack competitive examinations
- To make them skilled and employable by providing them with practical and employable skills

- To make them skilled by teaching them culturing microorganisms, plants, herbal formulations, naming of plants and animals, life functions and its applications etc., thus exposing them to the interesting world of life.
- To make them understand the dynamics of nature and apply the knowledge thus gained to solve various environmental issues and derive their commitment to environment
- To make them placed in various areas like Central Government, State Government, public sectors, chemical industries, herbal solutions, biochemical sectors, pharmaceuticals, biotech companies, dairy industry, breweries, wineries, laboratories etc. Can find opportunities in the field of Science and Technology.
- To pursue post- graduation and research in Chemistry, Organic and Physical Chemistry, Biological Sciences, Life Science, Biochemistry, Botany, Microbiology, Biotechnology, Genetics, Molecular Biology, Agriculture, Horticulture, Floriculture and related areas, Zoology, Dairy, Fisheries, Forestry, Paramedical, Bioinformatics, etc.,
- To make them entrepreneurs as they have learnt skill oriented techniques.

**Outcome:**

Students have learnt the basic concepts, gained its applications, developed critical thinking. They are equipped to pursue higher studies and research in the field of Chemical Sciences, Plant Sciences and Animal Sciences. They are competent enough to crack competitive exams and secure jobs in related fields. As they have learnt techniques in the subjects studies, they will find better placements and choose career as entrepreneurs.

**B.SC., PROGRAM IN BOTANY (CHEMISTRY, BOTANY, ZOOLOGY)**

**OBJECTIVES AND OUTCOMES**

**BOTANY**

Botany is studied in combination with Chemistry and Zoology which is a basic combination celebrated over the years. The institute follows the syllabus prescribed by Bangalore University. The syllabus is framed in such a way that the students will gain the knowledge of both basic concepts in botany and its application in various fields. Main objective of this program is to make students pursue higher studies and research. Also, the program offers skill and practical techniques which makes them choose career as an Environmental consultant, ecologist, biotechnologist, teacher, etc., They can get into Post-graduation in

Chemistry, Organic and Physical Chemistry, Biochemistry, Botany, Microbiology, Biotechnology, Genetics, Agriculture, Horticulture, Floriculture and related areas, Zoology, Dairy, Fisheries, Forestry, Paramedical, Bioinformatics and carry out research in these areas etc., by becoming Scientists. There is a vast scope in environment related firms, botanical gardens, food industry, plant breeding firms, health care units, Ayurvedic firms, bioinformatics, drug designing, pharmaceuticals, laboratories, gardening, clinical diagnosis, Plant Tissue Culture, etc.,

**COURSE CODE- SB1S11:**Introduction to microbiology, viruses, bacteria, cyanobacteria and phycology

**Course Objective:** To expose the students to the interesting world of microorganisms

**Course Outcome:**Students have studied the various types of microorganisms, their life cycles, and their application to agriculture, industry, medicine and environmental problems

**COURSE CODE SB1S21:** Mycology, Plant Pathology, Bryophytes and Plant Anatomy

**Course Objective:** To make them understand various fungi and their life cycles, fungal diseases on plants with field exposure and mushroom cultivation, life cycles of few bryophytes and internal structure of plant system.

**Course Outcome:** Field exposure made them to identify few plant diseases with theoretical knowledge, gained the knowledge of bryophytes and internal structure of plant system, competent to self employed by starting mushroom cultivation, biofertilizer industry on a large scale,

**COURSE CODE: SB1S31**Pteridophytes, Paleobotany, Environmental Biology and Phytogeography.

**Course Objective:** To make the students know about the life cycles of pteridophytes, their origin and evolution of seed habit, fossil plants. The course is designed to give awareness and understanding of dynamics of environment with special reference to Phytogeographical areas of India and Karnataka

**Course Outcome:** Students have explored the world of first land plants with vasculature, understood various aspects of environment which can make them Environmental consultant, researcher, ecologist, farming consultant.

**COURSE CODE: SB1S41** Gymnosperms and Embryology of Angiosperms

**Course Objective:** To enable students to know about Gymnosperms with special reference to their anatomy and development. Study of embryology of Angiosperms makes them the structures and process involved in the development of seed. The course exposes them to Plant Tissue culture techniques.

**Course Outcome:** Students are aware of various aspects of life cycles of Gymnosperms and their anatomy and embryology. Gained the knowledge of Angiosperm Embryology and Plant Tissue Culture which makes them to pursue higher studies in the area and researcher in PTC, competent to be placed in a seed company, become a biotechnologist, entrepreneur etc.,

**COURSE CODE:** SB1S51 Taxonomy and Economic Botany

**Course Objective:** To impart the knowledge of naming of plants, ICBN, technical description of the plants, classification, herbaria, floras, botanical gardens, ethnobotany, medicinal plants, economic botany with several field and plant collection trips.

**Course outcome:** Introduced to the vast world of Angiosperms and their classification. Acquaint with the basic rules of taxonomy, techniques of herbarium preparation, ICBN, various floras, botanical gardens, medicinal plants with maximum field exposure.

**COURSE CODE :** SB1S52: Molecular Biology, Genetic Engineering, Biotechnology and Plant Physiology.

**Course Objective:** To make students learn basic concepts of molecular biology, Structure and replication of DNA, Protein synthesis, Gene regulation. To make them understand that DNA is the basis of heredity. The course has more of biochemistry at cellular level. It also makes them to gain the knowledge of biotechnology and its application to mankind. The course also introduces the students to basic concepts of Plant Physiology

**Course outcome:** The students gained the knowledge of concepts and applications of molecular biology, biotechnology and Plant physiology. They are competent to be placed in a biotech firm, pursue higher education in the areas can become entrepreneur

**COURSE CODE** SB1S61 Cytology, Genetics, Evolution and Plant Breeding

**Course Objective:** The course aims to develop understanding an understanding about cell biology. Familiarize with the basic concepts of Genetics that is to make them understand the dynamics of hereditary, Evolution and Plant Breeding. Acquaint with basic techniques of plant breeding, cytology slide preparation, problem solving

**Course outcome:** The course familiarized the students with basic concepts of hereditary, cytology, Evolution and Plant Breeding. Developed the problem solving skills, cytology slide preparation, Plant breeding techniques.

### **COURSE CODE SB1S62: Plant Physiology**

**Course Objective:** To familiarize the basic principles related to Plant Physiology. To make them understand plant functions at cellular level like Photosynthesis, Respiration, Growth etc, Also to make them aware of the role of biomolecules in plants. To familiarize with the skills and techniques and its application.

**Course outcome:** The course familiarized the students with the fascinating functions of plants and learnt the techniques and application in related fields like agriculture, horticulture, gardening etc.

## **OBJECTIVES AND OUTCOMES**

### **Zoology (CBZ)**

#### **Course:- Zoology paper 1**

**COURSE OBJECTIVE:-** students will learn about different lower organisms, their behavior, anatomy , body form and their life cycle.

**COURSE OUTCOME:** students can understand how various lower vertebrates influencing human life in various aspects like causing diseases and in maintaining ecological balance. By understanding various aspects regarding the lower organisms students can undertake research activities to control the pathogenecity caused by them, and they also come to know how to exploit beneficiary organisms like poriferans , annelids etc to get economic benefits.

#### **Course:Zoology paper 2**

**COURSE OBJECTIVE:-**students will learn about various higher invertebrates about their general morphology and their economic exploitation.

**COURSE OUTCOME:-**students can understand ecological and economic benefits of various higher invertebrates like arthropods , molluscans etc. By understanding these concepts they can go for research field in order to improve standard of living along with they can set up own entrepreneurship by practicing sericulture, apiculture, vermiculture etc.

**Course:- Zoology paper 3**

**COURSE OBJECTIVE:-**students will learn about various chordates features, morphology and their role in human life and in ecology.

**COURSE OUTCOME:-** students can understand how various groups have been formed during course of evolution, they can also trace the evolutionary path of human being. they can understand how to exploit various animals for the wellbeing of human. By understanding the evolutionary path one can take research regarding various genetic disorders, individuals can set up various farms like dairy, poultry and fisheries to exploit animals for economic benefit.

**Course:- Zoology paper 4**

**COURSE OBJECTIVE:-** students will learn the various concepts of comparative anatomy, cell biology and immunology.

**COURSE OUTCOME:-**students can understand how the various organs of human have been formed during the course of evolution, how various cell organelles work to maintain proper metabolic activities and they can also learn how our immune system has been involved in maintaining good health condition.By tracing the evolutionary path of various organs and organ system students can undertake research activities to analyze the effect of various chemicals in various organs. by understanding the cell structure and function they can take research on various metabolic disorders and by understanding the immunology concepts they can analyze the disease conditions and in turn will be helpful in our daily life.

**Course:- Zoology paper 5**

**COURSE OBJECTIVE:-**students can study various ecological concepts, current global issues and their prevention. they can also study behavior of various animals.

**COURSE OUTCOME:-**by studying the various ecological concepts and current global issues like global warming, ozone depletion, acid rain, toxins, radioactive element effect etc., they can come to know how to control these problems and their contribution toward

maintaining proper environment for the coming generations. by studying the behavior of various animals they can try to maintain the suitable environments for their survival. By understanding these concepts they can undertake research in various burning issues like solid waste management, water recycling, air purifying etc., by understanding the animal behavior they can try to prevent extinction of various animals so that ecological balance can be maintained.

### **Course:- Zoology paper 6**

**COURSE OBJECTIVE:-**students will study different concepts of genetics, hereditary and biotechnology aspects.

**COURSE OUTCOME:-** by understanding the genetics and hereditary individual can come to know the role played by genes in their behavior and also the role of genes in various genetic disorder. understanding these concepts can help them to prevent carrying of genetic disorders to the further generations. studying of biotechnological concepts help them to understand how genes can be controlled in the laboratory and condition and various techniques to understand gene function. Students can undertake research in various genetic topics so that genetic disorders can be controlled and they also analyze how gene is affected by the influence various mutagens. studying biotechnological concepts helps them to take research activities and also helps them to work in various laboratories like crime bureau, pathology diagnostic labs etc.

### **COURSE:- ZOOLOGY PAPER 7**

**COURSE OBJECTIVE :-** students can study embryonic development of various animals and can also study the evolutionary concepts.

**COURSE OUTCOME:-** by studying the embryonic development of various animals individual can trace how various organs have been evolved in various animals and they can also understand the relation between the different animals. by studying the evolutionary concepts they can trace which all the animals have been lived and got extinct in this planet earth. By studying the development of various organs in the embryonic stage individual can take research in understanding effects of various factors in the development of various organ systems and organs. by studying the evolution they can trace the date of various fossils.

### **Course:- Zoology paper 8**

**COURSE OBJECTIVE:-** students can study various human physiological concepts and also various biological techniques.



**COURSE OUTCOME:-** by studying and understanding the various physiological concepts like digestion, excretion, reproduction, respiration etc, individual can understand their own body mechanism, and by studying biological techniques there implementation in diagnosing various pathological conditions. By understanding of physiological concepts will be helpful to undertake research activities on the mechanism of various drugs and that will be also helpful to understand their day to day activities. Biological techniques can be implemented in various research activities and also helpful in diagnostic centers.

## **POST GRADUATION IN KANNADA**

### **OBJECTIVES**

1. To facilitate to acquire in-depth knowledge in the discipline with a global perspective.
2. To enhance the ability to analyze and synthesize the knowledge system
3. To nurture the mastery with communicative, presentation, administrative and employability skills
4. To disseminate the knowledge of research through data analysis, field work and through theoretical and conceptual thinking.
5. To enhance the creative, independent, collaborative and multidisciplinary thinking and approach.
6. To encourage and mandate the usage of IT tools.
7. To promote ethical practices and social responsibility.

## **POST GRADUATION IN KANNADA**

### **OUTCOMES**

1. The students will acquire in-depth knowledge in the discipline with a global perspective.
2. Their ability to analyze and synthesize the knowledge system will enhance.
3. The mastery the students are aiming to acquire will be nurtured with communicative, presentation, administrative and employability skills.
4. The students will take an entry into research activities through data analysis, field work and through theoretical and conceptual thinking.
5. Their creative, independent, collaborative and multidisciplinary thinking and approach will be enhanced.
6. They will be well versed in using IT tools.
7. Their ethical practices and social responsibility will be enhanced.

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## **M.Sc. MATHEMATICS PROGRAM OUTCOMES**

The graduates of the M.Sc. program will be able:

- Professionally inclined Mathematics educators who have sound knowledge of subject matter and specialized in constructivist and alternate pedagogy.
- To use ICT in Mathematics teaching in multiple ways.
- Develop need based Mathematics teaching-learning resources.
- Contribute as trained work force to provide teaching-learning support to schools.
- Contribute as researchers in policymaking , curriculum design and in evaluation reforms to raise the standard of Mathematics Education.
- To teach the basic tools and techniques of Maxima, Scilab and LaTeX.

## **M.A. ECONOMICS PROGRAM OUTCOMES**

- To reach the microeconomic theory of consumers behavior and demands firms, Behavior and production and markets in partial equilibrium.
- To distinguish the market and optimizing behavior of micro economic agents.
- To teach the basic tools and techniques for micro economic analysis.
- To teach important concepts, measures and theories of Macro economics as they are related to the short term determination of National Income, investment, inflation, monetary and fiscal policies.
- Develop computational skills by solving numerical problems.
- To introduce macro level trends, status, issues and policies of the various sectors of Indian economy.
- Develop skills on measurement issues by solving numerical problems.
- Teach statistical methods in economics by applications of descriptive statistics. sampling and statistics, classical statistical inference and Bayesian methods.

  
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