St. Joseph's College of Commerce

(Autonomous)
163, Brigade Road, Bengaluru – 560 025

Accredited with 'A++' Grade (4th Cycle) by the
National Assessment and Accreditation Council (NAAC)

Recognized by the UGC as
"COLLEGE WITH POTENTIAL FOR EXCELLENCE"

Bachelor of Commerce - Honours (Analytics)

Semester I & II

Syllabus as per National Education Policy 2020

Curriculum Framework w.e.f., 2021-2022

Academic Year 2022 – 2023

St. Joseph's College of Commerce

(An Autonomous Institution affiliated to Bengaluru City University)

St. Joseph's College of Commerce (SJCC) was formerly a part of St. Joseph's College, established in the year 1882. The college management was later transferred to the Jesuits. The Commerce Department was established in the year 1949 and it became an independent college with its own building in Brigade Road in the year 1972.

The college has in its Vision a model for higher education which encourages individuals to dream of a socially just world and in its Mission a strategy to empower individuals in realizing that dream.

With an objective of imparting quality education in the field of Commerce and Management, the college has been innovating in all aspects of higher education over a long period of time. These innovations were further bolstered with the granting of autonomous status to the college by UGC in September 2005. From then on, the college has taken a lead in reforming curriculum and syllabus, examination and evaluation pattern and teaching and learning methods through the Board of Studies, the Academic Council and the Governing Council comprising of eminent academicians, industry representatives and notable alumni.

The college has undergone four cycles of NAAC accreditation starting from the year 2000 in which it secured 'five stars', next in the year 2007 an 'A' grade, in the year 2012 again an 'A' grade and recently in February 2021 an 'A++'. It is one of the very few institutions in the country to have secured A++ grade in the fourth cycle under the Revised Accreditation Framework (RAF) and the first college in Karnataka to do so. The college was declared as a 'College with Potential for Excellence' in the year 2010. In 2011, SJCC was recognized as a Research Centre by Bangalore University. The college has been ranked 74th in the National Institutional Ranking Framework (NIRF) ratings of Ministry of Education, Government of India, in 2021 and it has been the only institution from Karnataka to make it consistently to the top 100 in the country.

The college offers diverse Honours programmes in Commerce and Business Administration. Under Commerce Studies it offers B.Com, B.Com (Professional- International Accounting and Finance), B.Com (BPM- Industry Integrated), B.Com (Travel and Tourism), B.Com (Analytics), B.Com (Professional - Strategic Finance), M.Com (Finance & Taxation/ Marketing & Analytics), M.Com (International Business) & M.Com (Financial Analysis). Under Business Administration it offers BBA, BBA (Entrepreneurship) and BBA (Professional- Finance and Accountancy). The college also offers six one-year Post Graduate Diploma programmes.

ABOUT THE DEPARTMENT

The B. Com Department of St. Joseph's College of Commerce has efficiently streamlined all its courses to reflect an interdisciplinary approach to understanding the contemporary business environment. Its aim is to construct a strong foundation in core subjects such as Accounting, Taxation, Economics, Statistics, Auditing along with a choice of Cost Accounting, Finance, Business Analytics, Marketing and Human Resources, studied in the fifth and sixth semester. The courses are challenging, yet, rewarding for students with high aspirations. Our students have been sought after by employers for their excellent knowledge, skills and attitude, giving them an edge over their peers from other institutions. The B.Com Programme of the college is rated amongst the top 10 in the country. (India Today, AC Nielson Survey 2016).

OBJECTIVES OF THE B.COM (HONOURS) PROGRAMME

1. To provide conceptual knowledge and application skills in the domain of Commerce studies.
2. To provide knowledge in all the areas of business to be able to meet expectations of Commerce, Trade and Industry.
3. To sharpen the students' analytical and decision-making skills.
4. To provide a good foundation to students who plan to pursue professional programmes like CA, ICWAI, ACS, CFA and MBA.
5. To facilitate students to acquire skills and abilities to become competent and competitive in order to be assured of good careers and job placements.
6. To develop entrepreneurship abilities and managerial skills in students so as to enable them to establish and manage their own business establishments effectively.
7. To develop ethical business professionals with a broad understanding of business from an interdisciplinary perspective.

Salient Features of four - year Bachelor of Commerce Programme with Multiple Entry and Exit Options

1. The regulations governing the four-year Bachelor of Commerce Programme with Multiple Entry and Exit Options shall be applicable with effect from the Academic year 2021-2022.

2. The Bachelor of Commerce Programme shall be structured in a semester mode with multiple exit options:

Certificate in Commerce	On the completion of **First year** *(two semesters)*

Diploma in Commerce	On the completion of **Second Year** *(four semesters)*
Basic Bachelor Degree	On the completion of **Third Year** *(six semesters)*
Bachelor Degree with Honours	On the completion of **Fourth Year** *(eight semesters)*

3. The four-year undergraduate honours degree holders with research component and a suitable grade are eligible to enter the ***Doctoral Programme*** in a relevant discipline.

4. The students who exit with Certification, Diploma or Basic Bachelor Degree shall be eligible to re-enter the programme at the exit level to complete the programme or to complete the next level.

5. The four-year Bachelor of Commerce Programme offers a wide range of multidisciplinary courses with exposure to other disciplines, specializations and areas. The programme aptly caters to knowledge, ability, vocational, professional and skill enhancement along with focus on humanities, arts, social, physical and life sciences, mathematics, sports etc.

6. The four-year Bachelor of Commerce Programme combines conceptual understanding with practical engagement through lab courses, national and international field visits, internship, conferences, workshops, seminars, case study analysis, group discussions and research projects.

7. A wide range of ***Skill Enhancement Courses*** are offered in the first four semesters to enhance language and communication, logical reasoning, critical thinking, problem solving, data analytics and life skills.

8. In each of the first four semester students will have an option of studying a course from other disciplines. Students will be given an option to choose from a pool of ***Open Elective Courses*** that provide exposure to multiple disciplines and thereby making the programme truly multi-disciplinary.

9. Students can make a choice of a ***specialization/elective*** in the 3rd and the 4th year of the programme.

I. ELIGIBILITY FOR ADMISSION

Candidates who have completed the two-year Pre-University course of Karnataka State or its equivalent are eligible for admission into this Programme.

II. DURATION OF THE PROGRAMME

The duration of the undergraduate degree programme is ***four years*** (eight semesters) with multiple entry and exit options, within this period. The students can exit after the completion of ***one*** academic year (two-semesters) with a ***Certificate*** in the discipline; ***Diploma*** after the study of ***two*** academic years (four Semesters) and ***Basic Bachelor Degree*** after the completion of ***three*** academic years (six Semesters). The successful completion of ***Four - Year*** undergraduate Programme would lead to ***Bachelor Degree with Honours in the discipline.***

III. MEDIUM OF INSTRUCTION

The medium of instruction shall be English.

IV. ATTENDANCE

a. A student shall be considered to have satisfied the requirement of attendance for the semester, if he/she has attended not less than 75% in aggregate of the number of working periods in each of the courses, compulsorily.

b. A student who fails to complete the course in the manner stated above shall not be permitted to take the End Semester Examination.

V. SUBJECTS OF STUDY: THE COMPONENTS OF CURRICULUM FOR FOUR-YEAR MULTIDISCIPLINARY UNDERGRADUATE B.COM PROGRAMME

The Category of courses and their descriptions are given in the following table:

Category of courses	Objectives/ Outcomes
Languages	Language courses equip students with communication skills, critical and creative thinking, familiarity with issues pertaining to society and culture and skills of expression and articulation. They also provide students with a foundation for learning other courses.
Ability Enhancement Courses	Ability enhancement courses are the generic skill courses that enable students to develop a deeper sense of commitment to oneself and to the society and nation largely.

Skill Enhancement Courses	Skill Enhancement Courses enhance skills pertaining to a particular field of study to increase their employability/ self-employment. These courses may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge.
Vocational Enhancement courses	Vocational Enhancement courses enhance skills pertaining to a particular field of study to increase their employability/ self- employment.
Foundation/ Discipline based Introductory Courses	These courses will supplement in a better understanding of how to apply the knowledge gained in classrooms to societal issues.
Major Discipline Core Courses	Major Discipline Core Courses aim to cover the basics that a student is expected to learn in that particular discipline. They provide fundamental knowledge and expertise to produce competent and creative graduates with a strong scientific, technical and academic acumen.
Major Discipline Elective Courses	These courses provide more depth within the discipline itself or within a component of the discipline and provide advanced knowledge and expertise in an area of the discipline.
Open or Generic Elective Courses	Open or Generic Elective Courses are courses chosen from an unrelated discipline/ subject, with an intention to seek exposure beyond discipline/s of choice.
Project work/ Dissertation/ Internship/ Entrepreneurship	Students shall carry out project work on his/her own with an advisory support by a faculty member to produce a dissertation/ project report. Internship/ Entrepreneurship shall be an integral part of the Curriculum.
Extension Activities	As part of the objective of Social Concern, the College has designed a well-structured Community Outreach programme of sixty hours called 'Bembala' (Support). The programme includes rural camps, workshops, lectures and seminars, teaching programme in Govt Schools or Colleges, community service in slums and villages, awareness programme in streets, localities, slums or villages and public rallies on social issues. The College expects the students to be part of the activities organized by the College towards securing the goal of Social Concern. This programme is mandatory for the award of degree from the college.
Extra/Co-curricular Activities	The College has a wide range of student associations and clubs that provide space for students to develop their creative talents. The activities conducted help in developing not just the artistic and entrepreneurial talents but also helps in character building, spiritual

	growth, physical growth, etc. They facilitate development of various domains of mind and personality such as intellectual, emotional, social, moral and aesthetic developments. Creativity, enthusiasm, and positive thinking are some of the facets of personality development and the outcomes of these activities.

VI. CREDIT REQUIREMENT

Credits represent the weightage of a course and are a function of teaching, learning and evaluation strategies such as the number of contact hours, the course content, teaching methodology, learning expectations, maximum marks etc.

Exit Option	Minimum Credit Requirement*
Certificate in Commerce	50
Diploma in Commerce	100
Basic Bachelor Degree	148
Bachelor Degree with Honours	190

*Credits are subject to change as per the NEP guidelines

VII. TEACHING & EVALUATION

M.Com/MBA/MFA/MBS/MTA graduates with B.Com, B.B.A & B.B.S as basic degree from a recognized university are only eligible to teach and to evaluate the courses including part – B courses of I and II semesters (except languages, compulsory additional courses and core Information Technology related courses) mentioned in this regulation. Languages and additional courses shall be taught by the graduates as recognized by the respective board of studies.

VIII. EXAMINATION & EVALUATION

CONTINUOUS FORMATIVE EVALUATION/ INTERNAL ASSESSMENT:

Total marks for each course shall be based on continuous assessment and semester end examinations. As per the decision taken at the Karnataka State Higher Education Council, the total marks for CIA and ESE as per NEP will be 40:60.

TOTAL MARKS FOR EACH COURSE	100%

Continuous Internal assessment – **CIA 1**	20% marks
Continuous Internal assessment – **CIA 2**	20% marks
End Semester Examination **(ESE)**	60% marks

EVALUATION PROCESS OF INTERNAL ASSESSMENT MARKS SHALL BE AS FOLLOWS:

a) The first component (CIA 1) of assessment is for 20% marks. The second component (CIA 2) of assessment is for 20% marks.

b) During the end of the semester, end semester examination shall be conducted by the college for each course. This, forms the third and final component of assessment (C3) and the maximum marks for the final component will be 60%.

c) The students shall be informed about the modalities well in advance. The evaluated assignments during component I (CIA 1) and component II (CIA 2) are immediately provided to the students.

d) The marks of the total internal assessment shall be published on the ERP for students at the end of semester.

e) The internal assessment marks shall be submitted to the COE as per the date mentioned.

f) There shall be no minimum in respect of the internal assessment marks.

g) Internal assessment marks may be recorded separately. A student who has failed, shall retain the internal assessment marks as there will be no change in the CIA results scored.

MINIMUM FOR A PASS

a. A student needs to get 40% in the end semester examination and in addition the student also should get an aggregate of overall 40% inclusive of his internal assessment to be declared as passed.
b. The student who is passed in all the end semester examinations in the first attempt is eligible for rank.
c. A student who passes the semester examinations in parts or attempted supplementary exams is eligible for only Class and CGPA but not for ranking.
d. The results of students who have passed the last semester examinations but not passed the lower semester examinations shall be eligible for the degree only after completion of all the lower semester examinations.
e. If a student fails in a subject, either in theory or practical's he/she shall appear for that subject only at any subsequent regular examination, as prescribed for completing the programme. He/she must obtain the minimum marks for a pass in that subject (theory and practical's separately) as stated above.

CARRY OVER

Students who fail in lower semester examinations may go to the higher semesters and take the lower semester examinations as per odd or even semester in the next consecutive chance.

CLASSIFICATION OF SUCCESSFUL CANDIDATES

The ten-point grading system is adopted. The declaration of result is based on the Semester Grade Point Average (SGPA) earned towards the end of each semester or the Cumulative Grade Point Average (CGPA) earned towards the completion of all the eight semesters of the programmes and the corresponding overall grades. If some students exit at the completion of the first, second or third year of the four year Undergraduate Programmes, with Certificate, Diploma or the Basic Degree, respectively, then the results of successful candidates at the end of second, fourth or sixth semesters shall also be classified on the basis of the Cumulative Grade Point Average (CGPA) obtained in the two, four, six or eight semesters, respectively. For award of;

- Certificate in Business Commerce
- Diploma in Business Commerce
- Basic Bachelor's Degree in Business Commerce
- Bachelor's Degree with Honours in a Discipline

TRANSFER FOR ADMISSION

Transfer for admission is permissible only for odd semesters for students of other universities and within the university.

CONDITIONS FOR TRANSFER OF ADMISSION OF STUDENTS WITHIN THE UNIVERSITY

a. His/ her transfer admission shall be within the intake permitted to the college.
b. Availability of same combination of subjects studied in the previous college.
c. He/she shall fulfill the attendance requirements as per the University Regulation.
d. He/she shall complete the programme as per the regulation governing the maximum duration of completing the programme.

CONDITIONS FOR TRANSFER ADMISSION OF STUDENTS OF OTHER UNIVERSITIES

a. A Student migrating from any other University may be permitted to join odd semester of the degree programme provided he/she has passed all the subjects of previous semesters/years as the case may be. Such

candidates must satisfy all other conditions of eligibility stipulated in the regulations of the University.

b. His/her transfer admission shall be within the intake permitted to the college.
c. He/she shall fulfill the attendance requirements as per the University Regulation.
d. The student who is migrating from other Universities is eligible for overall SGPA/CGPA or Class and not for ranking.
e. He/she shall complete the programme as per the regulation governing the maximum duration of completing the programme as per this regulation.

Outcome Based Education (OBE)

B.Com - Honours (Analytics)

Our **B.Com - Honours (Analytics)** program will produce graduates who will:

PEO1: Be competent, creative and highly valued professionals in industry, academia, or government.

PEO2: Adapt to a rapidly changing environment with newly learnt and applied skills and competencies, become socially responsible and value driven citizens, committed to sustainable development.

PEO3: Act with conscience of global, ethical, societal, ecological and commercial awareness with sustainable values as is expected of professionals contributing to the country.

PEO4: Able to continue their professional development by obtaining advanced degrees in accounting and other professional fields.

Programme Outcomes (PO)

After the completion of the **B Com - Honours (Analytics)** Programme, the student will be able to:

PO1: Disciplinary and Inter - disciplinary Knowledge

Demonstrate the **understanding** of relevant business, management and organization knowledge, both academic and professional, in line with industry standards.

PO2: Decision Making Skill

Apply underlying concepts, principles, and techniques of analysis, both within and outside the discipline to generate all the possible solutions and picks one that shows their understanding of the problem and the outcomes.

PO3: Integrated Problem-solving and Research

Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems by analyzing key managerial issues in a particular industry or company and propose appropriate managerial solutions to the situation.

PO4: Critical Thinking Skill

Evaluate evidence, arguments, claims and beliefs by using right type of reasoning as appropriate to the situation and Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems.

PO5: Creative Thinking Skill

Develop, implements and communicates new and worthwhile ideas using both incremental and radical concepts to make a real and useful contribution to their work.

PO6: Usage of Modern Technology and Tools

Use tools and technologies of digital nature, communication/networking tools and social networks appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy.

PO7: Leadership and Team work

Develop a vision, translate that vision into shared goals, and effectively work with others to achieve these goals.

PO8: Ethical Conduct & Sustainability Practices

Act responsibly and sustainably at local, national, and global levels.

PO9: Collaboration & Networking Skill

Work collaboratively and respectfully as members and leaders of diverse tems.

PO10: Self-directed and Life – long Learning

Create goals and monitor progress toward them by developing an awareness of the personal, environmental and task-specific factors that affect attainment of the goals.

Programme Specific Outcomes (PSOs)

PO 11: Developing analytical model

Develop models to identify and evaluate complex business challenges by analysing data using analytical techniques and visualising tools.

PO12: Application of analytical model

Apply appropriate analytical methods into the core business operations and to leverage data to cultivate and nourish informed decision-making.

B.COM - Honours (Analytics)									
PROGRAMME MATRIX AS PER NATIONAL EDUCATION POLICY									
Course Category	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**	**TOTAL**
Part A : Ability Enhancement Complusory Courses									
Language 3 Hrs/3 Cr	Lan 1	Lan 1	Lan 1	Lan 1	-	-	-	-	
	Lan 2	Lan 2	Lan 2	Lan 2	-	-	-	-	
Compulsory Course 3 Hrs/3 Cr	-	Environmental Studies	-	Indian Constitution	-	-	-	-	
I	**6 Cr**	**9 Cr**	**6 Cr**	**9 Cr**	**-**	**-**	**-**	**-**	**30**
Part B: Core Courses									
Discipline Specific Core Courses 4 Hrs/4 Cr & 3Hrs/3 Cr	Financial Accounting - **4 Hrs**	Corporate Accounting - **4 Hrs**	Financial Management - **4 Hrs**	Business Statistics with R Programming - **4 Hrs**	Income Tax I - **4 Hrs**	Income Tax II - **4 Hrs**	Corporate Tax - **4 Hrs**	Design Thinking for Innovation - **3 Hrs**	
	Business Statistics – I - **4 Hrs**	Business Statistics - II - **4 Hrs**	Marketing Management - **4 Hrs**	Human Resource Management - **4 Hrs**	Cost Accounting - **4 Hrs**	Management Accounting - **4 Hrs**	Principles and Practices of Auditing - **4 Hrs**	Behavioural Finance - **3 Hrs**	
	Mathematics - **4 Hrs**	Business Economics - **4 Hrs**	Programming for Analytics - **4 Hrs**	Theory and Practice of Banking - **4 Hrs**	Data Visualization - **4 Hrs**	Data Mining with R - **4 Hrs**	Emotional Intelligence for Managerial Effectiveness - **4 Hrs**	Portfolio Management and Analysis - **3 Hrs**	
Open Electives Course (OEC) 3 Hrs/ 3 Cr	Choice of Course	Choice of Course	Choice of Course	-	-	-	-	-	
Discipline Specific Elective 3 Hrs/3 Cr	-	-	-	-	Elective Paper - Multivariate Data Analysis	Elective Paper - Text Mining	Elective - Cloud Computing	Elective Paper	
								Elective Paper (Optional)	
	-	-	-	-	-	-	-	Elective Paper (Optional)	
SEC - SB 2 Cr	Digital Fluency	-	Artificial Intelligence	Financial Education Investment Awareness	Choice of Course	Choice of Course	-	-	
VEC 3 Cr	-	-	-	-	Choice of Course	Choice of Course	Choice of course	Choice of course	
Research Methodology 3 Cr	-	-	-	-	-	-	Research Methodology	-	
Internship 2 Cr	-	-	-	-	Social Internship	Corporate Internship	-	-	
Research Project/Internship 6 Cr	-	-	-	-	-	-	-	Research Project/Internship (Optional)	
II	**17 Cr**	**15 Cr**	**17 Cr**	**14 Cr**	**22 Cr**	**22 Cr**	**21 Cr**	**21 Cr**	**149**
Part C: Skill Enhancement Course - Value Based									
Foundation Course Extension and Extracurricular Activities 2 Cr	Psychological Well being	Extension Activities 1 Cr	Yoga	Extension Activities 1 Cr	Extension Activities 1 Cr	Extension Activities 1 Cr	-	-	
		Extracurricular Activities/Association/Sports 1 Cr		Extracurricular Activities/Association/Sports 1 Cr	Extracurricular Activities/Association/Sports 1 Cr	Extracurricular Activities/Association/Sports 1 Cr	-	-	
IV	**2 Cr**	**2 Cr**	**2 Cr**	**2 Cr**	**2 Cr**	**2 Cr**	**-**	**-**	**12**
Total	**25 Cr**	**26 Cr**	**25 Cr**	**25 Cr**	**24 Cr**	**24 Cr**	**21 Cr**	**21 Cr**	**191**

Bachelor of Commerce
(Analytics)
Semester Structure as per National Education Policy

SEMESTER I

SL. No.	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	ESE	CIA	Total Marks	Credits
1	**Language 1**		AECC	3+1+0	60	40	100	3
	C5 21 KN 101	Kannada						
	C5 21 HN 101	Hindi						
	C5 21 AE 101	Additional English						
2	**Language 2**		AECC	3+1+0	60	40	100	3
	C5 21 GE 101	General English						
3	C5 21 DC 101	Financial Accounting	DSC-1	3+1+2	60	40	100	4
4	C5 21 DC 102	Business Statistics – I	DSC-2	4+0+0	60	40	100	4
5	C5 22 DC 103	Mathematics	DSC-3	4+0+0	60	40	100	4
6		Open Electives*	OEC-1	3+1+0	60	40	100	3
7	C5 21 SB 101	Digital Fluency	SEC-SB	1+0+2	30	20	50	2
8	UG 21 FC 101	Psychological Wellbeing	SEC-VB	1+0+2	-	50	50	2
SUB TOTAL (A)					**390**	**310**	**700**	**25**

* Open Elective Courses are courses from an unrelated discipline/ subject, with an intention to seek exposure beyond discipline/s of choice.

Bachelor of Commerce
(Analytics)
Semester Structure as per National Education Policy
SEMESTER II

SL. No.	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	ESE	CIA	Total Marks	Credits
1	**Language 1**		AECC	3+1+0	60	40	100	3
	C5 21 KN 201	Kannada						
	C5 21 HN 201	Hindi						
	C5 21 AE 201	Additional English						
2	**Language 2**		AECC	3+1+0	60	40	100	3
	C5 21 GE 201	General English						
3	UG 21 CC 201	Environmental Studies	AECC	3+0+0	30	20	50	3
4	C5 21 DC 201	Corporate Accounting	DSC-4	3+1+2	60	40	100	4
5	C5 21 DC 202	Business Statistics - II	DSC-5	4+0+0	60	40	100	4
6	C5 21 DC 203	Business Economics	DSC-6	4+0+0	60	40	100	4
7		Open Electives*	OEC-2	3+1+0	60	40	100	3
8	UG 21 EA 201	Extension Activities	SEC-VB	0+0+2	-	25	25	1
9	UG 21 EC 201	Extra-Curricular Activities	SEC-VB	0+0+2	-	25	25	1
SUB TOTAL (A)					**390**	**310**	**700**	**26**

* Open Elective Courses are courses from an unrelated discipline/ subject, with an intention to seek exposure beyond discipline/s of choice.

SEMESTER – I
C5 21 DC 101: FINANCIAL ACCOUNTING

COURSE OBJECTIVES

The course aims to equip the students with the conceptual knowledge and skills required to prepare and evaluate financial statements of different business organisations.

Module - 1: Conceptual Framework 10 Hrs
Introduction to Ind AS, IFRS, Challenges in implementation, Role of an accountant. Concepts – Assets, Liabilities, Incomes, Expenditure and Equity for Sole proprietor, Partnership firm and Company. Four Pillars of accounting and Accounting Equation. Applicability of IndAS – Voluntary adoption and Mandatory applicability – Phase I, II , III and IV. Role of accountant – Ethical values – Integrity, Objectivity, Professional competence and care, Confidentiality, Professional behaviour**.**

Module - 2: Accounting Process 10 Hrs
Accounting Process – Journal (including transactions covering GST on purchases and sales), Ledger, and Trial Balance. Rectification of Errors as per Ind AS 8 and 10.

Module – 3: Preparation and Presentation of Financial Statements 15 Hrs
Preparation of Financial statements- Profit & Loss statement and Balance Sheet. Treatment of Ongoing transactions- Goods withdrawn by proprietor, Goods lost by fire, Goods issued as free sample, Goods sent on consignment basis, Cash withdrawn by proprietor, Prepaid expenses, Outstanding expenses, Interest on capital, Interest on drawings, Interest on loan, Provision for Bad debts and Doubtful debts, Depreciation, Commission payable before and after charging such commission.(sole proprietor and Partnership Firm)

Module -4: Introduction to Company Financial Statements 5 Hrs
Company Financial Statements – Objectives, Format of the presentation of Financial Statement as per IndAS and the Companies Act 2013 (revised July 2019)

Module - 5: Preparation and Presentation of Cash flow Statement 10 Hrs
Meaning of Cash flow, Types of Cash flow, Estimation of cash flow using various methods. (Simple problems only)

Module–6 : Basic financial Statement Analysis **10 Hrs**

Ratio Analysis based on profits, Balance Sheet, Return on Capital Employed, Return on Investments, Earning per Share, Net Profit Ratio, Current Ratio, and Liquid Ratio. Trend Analysis.

Skill Development

(These activities are only indicative, the Faculty member can innovate)

1. Prepare financial statements for an imaginary company using Tally.
2. Analyse a company's published annual report which includes accounting policies and present a summary on performance and financial position.
3. Analyze a published financial statement of a company using various Ratios and interpret the results.
4. Compare the published income statement of a company of your choice before and after covid pandemic

COURSE OUTCOMES

After completion of the course, the students will be able to:

1. Explain the concepts, conventions and terms of Financial Accounting as per the framework of Ind AS and IFRS.
2. Prepare journal, ledger and trial balance and rectification of errors as per Ind AS 8 and 10.
3. Construct financial Statements of Sole Proprietorship and Partnership incorporating all the necessary adjustments.
4. Apply the format of the presentation of Financial Statement as per Ind AS to the Companies Act, 2013 (revised July 2019).
5. Prepare Cash flow statements as per old and new methods.
6. Evaluate firm's profitability and liquidity by using ratio analysis and trend analysis.

Books for Reference

- *Jain &Narang - Advanced Accounts –– Kalyani Publications*
- *S.N. Maheshwari - Advanced Accounting – Sultan Chand*
- *Ashok Sehgal, Deepak Sehgal , Advanced accounting–Taxmann's*
- *Grewal ,Advanced Accounts – Sultan Chand*
- *CA Anand Banka - Comprehensive guide to IND AS implementation- CCH*
- *IFRS and Ind AS publications issued by IASB and ICAI respectively*
- *M.C.Shukla - Advanced Account*

SEMESTER – I
C5 21 DC 102: BUSINESS STATISTICS – I

COURSE OBJECTIVES

The course aims to equip the students with the basic concepts of statistics and its application in making business decisions using various statistical tools.

Module 1: Introduction **10 Hrs**

Definition - Need for Statistics - Scope – Limitations - Definition of Research – Scope – Types - Objectives - Steps in Research. Ethics to be followed by a statistician and role of statistics in sustainable development. Classification of data - Formation of Statistical Series - Frequency Distribution (univariate and bivariate) and Tabulation.

Population - Sample -Types of Data - Primary and Secondary Data: Qualitative - Quantitative - Cross Sectional - Time Series - Variables and Attributes - Discrete and Continuous Variables - Types of Scales- nominal, ordinal, ratio and interval.

Module 2: Measures of Central Tendency **15 Hrs**

Meaning of Central Tendency – Definition – Types of Averages - Arithmetic Mean (Simple, Weighted and Combined).

Median – Mode (excluding missing frequency problems) – Quartiles - Deciles – Percentiles (applications, importance, merits and demerits).

Module 3: Measures of Dispersion **12 Hrs**

Meaning – Definition - Importance of Dispersion – Range - Quartile Deviation - Mean Deviation - Standard Deviation – Variance - Coefficient of Variation (applications, importance, merits and demerits).

Module 4: Diagrammatic and Graphical Representation of Data **10 Hrs**

Need for representation of Data in Diagrams and Graphs - One Dimensional - Line, Bar, Simple, Sub-Divided, Percentage Bar, Multiple Bar Diagram, Deviation Bar Diagram, Two Dimensional Bar Diagrams (by using rectangles) - Pie Diagram. Ogives (less than and more than) - Histogram - Smoothed Frequency Curve - Frequency Polygon.

Module 5: Skewness and Kurtosis **13 Hrs**

Skewness – Meaning - Definition - Difference between Dispersion and Skewness - Measures of Skewness: Karl Pearson's and Bowley's Coefficient of Skewness - Moments (about mean and arbitrary point)- Coefficient of Skewness based on Moments. Kurtosis – Meaning – Need - Measure of Kurtosis - Coefficient of Skewness based on Moments

Skill Development

(These activities are only indicative, the Faculty member can innovate)

1. Analyse and compute the different measures of central tendencies for

business variables and to identify that which measure of central tendency suits the data.
2. Analysis of data by applying descriptive statistics for the purpose of finding actionable insights pertaining to a given data set.
3. Prepare a Visual presentation of a company's financial statements using diagrams and graphs for finding year to year changes.
4. Compute skewness and kurtosis of a data and identify potential challenges for further analysis.

COURSE OUTCOMES

After completion of the course, the students will be able to:

1. Explain the basic concept of Statistics and scope of its application in business decision making.
2. Choose an appropriate measure of central tendency to analyze the given data for business decision making.
3. Justify the application of measures of dispersion to analyze the given data for consistency of diverse phenomenon
4. Show the statistical data, construct and comprehend in diagrammatic and graphic representation.
5. Use the concept of Skewness and Kurtosis to determine the type of distribution and tail of the distribution.

Books for Reference

- *Croxton F.E, Cowden D.J and Kelin S (1973): Applied General Statistics., PHI.*
- *Ken Black, Business Statistics, Wiley.*
- *Freund JE and Walpole RE (1987) Mathematical Statistics (4th edition) PHI.*
- *Goon A.M., Gupta M.K., Das Gupta.B. (1991): Fundamentals of Statistics Vol.I, World Press, Calcutta.*
- *Gupta, S.C., and V.K.Kapoor (2001): Fundamentals of Mathematical Statistics: Sultan Chand & Sons.*
- *Medhi J (1992), Statistical Methods: An introductory text. New Age.*
- *Veerarajan T: Probability , Statistics and Random process, Tata Mc Gran Hill.*
- *J K Sharma(2007), Business Statistics, Pearson Education India.*
- *Naval Bajpai(2009), Business Statistics, Pearson Education India.*
- *Anderson T.W. and Sclove S.L (1978) An Introduction to the Statistical*
- *Analysis of Data, Houghton Miffin& Co.*
- *Cooke, Cramer and Clarke: Basic Statistical Computing, Chapman and Hall.*
- *Mood A.M. Graybill F.A. and Boes D.C. (`1974): Introduction to the Theory of Statistics, McGraw Hill.*
- *Snedecor G.W. and Cochran W.G. (1967): Statistical Methods. Iowa State University Press.*
- *Spiegel,M.R. (1967):Theory &Problems of Statistics, Schaum's Publishing Series.*

- *KVS Sarma, Statistics Made Simple: Do it yourself on PC (PHI)*
- *Purohit S.G. et.al. Statistics using R*
- *John Verzani (2005): Using R for Introductory Statistics, CHAPMAN & HALL/CRC*
- *The Cartoon Guide to Statistics By Larry Gonick (Author) , Woollcott Smith (Author)*
- *Bhat B.R, Srivenkatramana T and Rao Madhava K.S.(1996): Statistics: A Beginner's Text, Vol. I, New Age International(P) Ltd.*
- *Bhat B.R, Srivenkatramana T and Rao Madhava K.S. (1997):Statistics: A Beginner's Text, Vol. II, New Age International (P)*

SEMESTER – 1

C5 22 DC 103: MATHEMATICS

COURSE OBJECTIVES

The course aims to enable students to have a strong hold in basic Algebra, Solving Equations, Calculus and applying the concepts in Commerce and Economics.

Module 1: Matrices, Determinants and Application **5 Hrs**

Matrices: Review of fundamentals: Definition of matrix, order, Types of matrices: zero, row, column, square, diagonal, scalar, unit, symmetric, skew-symmetric. Determinant: Value of determinant of order 2x2, 3x3, minors, cofactors, adjoint, inverse of a matrix. Solutions of linear equations: Cramers rule and matrix method involving two and three variables. Application problems.

Module 2: Eigen values and Eigenvectors **7 Hrs**

Definition, Characteristic equation, characteristic roots, characteristic vectors (without any theorems) only 2x2 order. Cayley Hamilton theorem. (Only statement), verification of Cayley Hamilton theorem (only 2x2 matrices), using the same finding the powers of A (A4,A5, A-1, A-2), Inverse of a Matrix using Cayley Hamilton theorem.

Module 3: Algebra **10 Hrs**

Equations, Degree, Roots of an equation. (Including complex roots) Solving Linear and Quadratic equations, Nature of the roots, Cubic Equations, Synthetic Division Method, Biquadratic (quartic) equations, Binomial Theorem, Partial Fractions.

Module 4: Differential Calculus **15 Hrs**

Functions, Limits and Continuity (simple problems), Differentiability, Derivatives, Rules of Differentiation, Logarithmic differentiation, Differentiation of Implicit and Parametric functions, Successive Differentiation, Partial Derivatives, Maxima and Minima, Applications of Differentiation- Cost , Revenue and Profit functions, Marginal Cost, Marginal Revenue, Profit Maximization, Break Even Point, Elasticity of Demand.

Module 5: Integral Calculus **15 Hrs**

Introduction, Indefinite Integration, Standard Integrals, Rules of Integration, Integration by Substitution, Integration by resolving into Partial Fractions, Integration by Parts, Definite Integrals, Applications of Integration to cost and revenue functions.

Module 6: Differential Equations **8 Hrs**

First order Linear Differential Equations, Homogeneous and Non Homogeneous Differential Equations. Applications in Economic theory.

Skill Development
(These activities are only indicative, the Faculty member can innovate)

1. Prepare a Case Study on application of Calculus to business.
2. Present Differentiation &Integration through graphs of different types of functions

COURSE OUTCOMES

After completion of the course, the students will be able to:

1. Explain basic concepts of Matrices, Determinants, Algebra, integral calculus, Differential calculus and differential equations and its application in Economics and Managerial decision making.
2. Construct abstract or physical phenomena of Business and use Matrices and Determinants to solve business problems.
3. Illustrate the abstract or physical phenomena of Business and use Algebraic equation to solve business problems.
4. Design Cost, Revenue and Profit function by using Differential calculus.
5. Develop Cost, Revenue and profit functions by using Integral calculus.
6. Identify business problems that merits the application of Differential equations.

Books for Reference

- *P. N. Arora & S. Arora: Mathematics*
- *D.R. Agarwal : Comprehensive Mathematics*
- *Anand Sharma : Business Mathematics & Analytics*
- *Ajay Goel &AlkaGoel : Mathematics & Statistics*
- *K. B. Akhilesh& S. Balasubramanyam : Mathematics & Statistics for Management*
- *J.K.Singh : Business Mathematics*
- *Robert R. Stall: Linear Algebra & Matrix Theory*

SEMESTER –I
C5 22 SB 101: DIGITAL FLUENCY

COURSE OBJECTIVES

The course is designed to familiarize the students with the fluency required for comprehending a digital environment and applications of database management system.

Module 1: Operating Systems **10 Hours**

Operating Systems, types of operating systems, major functions of the operating systems, types of riser interface, examples of operating systems: MS-DOS, Windows, Mac OS. Linux, Solaris, Android. Office automation tools: word processor, power point, and spread sheet.

Module 2: Computer Networks **10 Hours**

Introduction to Computer Networks, Evolution of Networking, types of networks, Network devices - Modem, Ethernet card, RJ45, Repeater, Hub, Switch, Router, and Gateways, Identification of Nodes in a Network Communication, Internet, Web and the Internet of Things, Domain Name Systems. Security Aspects- Threats and Prevention, Malware - virus, Worms, Ransomware, Trojan, spyware, adware, key loggers, Modes of Malware distribution, Antivirus, HTTP vs HTTPS Firewall, Cookies, Hackers and Crackers,

Module 3: Database Management System **10 Hours**

Database Management Systems, Relational Data Model. Introduction to e-learning platforms such as Swayam, and MOOC. Virtual Meet: Technical Requirements, scheduling a meeting, joining virtual meet, recording the meeting, On line Forms: Creating questionnaire, Publishing questionnaire, conducting online responses, Analysing the responses, copying graphics into powerpoint, Downloading the response to spreadsheet. Introduction to societal impacts, Digital Foot prints, Digital Society and Netizen, Data Protection, E-waste, Impact on Health.

Skill Development:

1. Identifying the configuration of a computer system, laptop, and a mobile phone

2. Identifying the version and the configuration of the operating system of a computer, laptop, and a mobile phone

3. Identifying the network components like patch cord, switch, RJ 45 Jack, Socket and wireless router, creating a hotspot from a mobile phone, and allowing others to use the

hotspot, creating a Google form, and send it to five users, scheduling a virtual meet and invite three people to join the Google meet, record the virtual Meet

4. Creating an account in the Railway reservation website, IRCTC, and finding trains from Tumkur to Hubli, creating a one minute video of your choice in your native tongue, and upload the video to YouTube, composing word document.

5. Creating tables, creating tables, preparing power point slides, simple computation using spread sheet

COURSE OUTCOMES:

After completion of the course, the students will be able to:

1. Explain the type of emerging technologies and potential cyber-attacks in the world of digital
2. Evaluate the relevance and applicability of Artificial Intelligence, Big Data Analytics, Internet of Things and Cloud Computing on specific operations citing a example for the same
3. Justify the building of Essential Skills beyond Technology that goes well with adoption the Technology

BOOK FOR REFERENCE:

1. Volker Lang, Digital Fluency: Understanding the basics of Artificial Intelligence, Block chain technology, Quantum Computing and their applications for Digital Transformation, 1st Edition, Apress Publications, 2021
2. S. B. Ramoshi and S.P. Sajjan, Digital Fluency, 1st Edition, Karnataka, Ekalavya E-educate, 2021.
3. Eric Downey, Fundamentals, Applications and Emerging Technologies, Createspace Independent Publications, 2017
4. Chris Hackett, The Big Book of Maker Skills (Popular Science): Tools & Techniques for Building Great Tech Projects Flexi bound, Weldon Owen, Illustrated edition, 2014

SEMESTER I
UG 21 FC 101: PSYCHOLOGICAL WELL-BEING

COURSE OBJECTIVES

This course aims to nurture self-awareness and meaningful relationship skills and to help in the development of emotional quotient and inter-personal skills.

Module 1 – Introduction **3 hours**

Meaning of counseling – Myths and Facts related to counseling – Breaking stigmas related to seeking counselling – Normalizing seeking help – Self-reflection through concentric circles

Module 2 – Intra-personal and Inter-personal Awareness **10 hours**

Meaning of self-esteem – Factors that influence self-esteem – Importance of self-esteem – Effects of low self-esteem – Qualities seen in people with high vs. low self-esteem – How to improve self-esteem – Self-awareness activity

Meaning of peer pressure – Different kinds of peer pressure – Resisting peer pressure – Confronting peer pressure – Group sharing activity

Meaning of relationships – Types of relationships – Healthy relationship dynamics – Personal Rights in a relationship – Components of a healthy relationship – Types of abuse in a relationship – Intimacy and understanding our needs – Boundaries

Module 3 – Understanding Emotions **4 hours**

Meaning of emotions – Role of emotions in our lives – Beliefs regarding emotions – Harmful effects of suppressing emotions – Signs of emotional suppression – Handling emotions in a healthy manner – Self-assessment activity

Module 4 – Anger management **5 hours**

Meaning of anger – Physical and Emotional symptoms of anger – Different ways that people express anger – Expression and experience of anger – What makes us angry and what it means when we're angry – Dealing with anger – Guided visualization and art activity

Module 5 – Managing Anxiety/Fear **4 hours**

Meaning of fear – Types of fear – Physical and Emotional symptoms of fear – Different reactions to fear – Overcoming fear – Art work followed by group sharing activity

Module 6 – Dealing with Loss and Grief **4 hours**

Understanding loss and grief – Form of loss – Stages of grief – Dangers of not grieving – Dealing with grief – Ways to help others in grief

COURSE OUTCOMES

After completion of the course, the students should be able to:

1. Develop a better emotional quotient.
2. Formulate a healthier sense of self through self-awareness.
3. Build more meaningful relationships.
4. Display an improvement in inter-personal skills.
5. Modify thought and belief patterns.

SEMESTER –II

C5 21 DC 201: CORPORATE ACCOUNTING

COURSE OBJECTIVES

The course is designed keeping in view the awareness level requirement of students with regard to Corporate Accounting concepts and techniques.

Module - 1: Preparation and Presentation of Financial Statements 20 Hrs

Preparation and Presentation of Financial Statements as per IndAS Schedule III (Excluding Consolidated Financial Statement) Overall Comprehensive Income, Changes in Equity, Cash Flow, Profit & Loss Statement, Balance Sheet.

Treatment of Special Items – Depreciation calculated as per Schedule II, Interest on Debentures, Provision for Tax, Dividends-Interim dividend, final dividend, Unclaimed Dividend, Corporate Dividend Tax. OECD – Principles of Corporate Governance – Six principles, GRI -Sustainability reporting – in preparation and presentation of financial statements

Module – 2: Redemption of preference shares 10 Hrs

Meaning, Legal provisions as per section 55 of Companies Act 2013, Treatment of Premium received on issue of shares Section 52, Creation of Capital Redemption Reserve, Fresh issue shares, Arranging for cash balance for the purpose of redemption (Use of Equation for finding out minimum or sufficient number of shares to be issued to the public at the time of redemption of preference shares) Minimum number of shares to be issued for redemption, Issue of Bonus shares by using CRR account ,Basics of Buy Back of Shares.

Module – 3: Internal Reconstruction or Capital Reduction 10 Hrs

Meaning, Objective, Procedure, Form of Reduction, Reorganisation through surrender of Shares, Subdivision and consolidation of shares, Materialisation of Contingent Liability, Accounting arrangements, Journal entries, Balance Sheet after Reconstruction.

Module – 4: Amalgamation 10 Hrs

Meaning of Amalgamation, Types of Amalgamation, Merger and Purchase, Calculation of Purchase Consideration, Accounting entries in the books of Selling or Vendor Company, Ledger accounts in the books of Selling Company, Journal entries in the books of Buying company and Preparation of Opening Balance sheet of the Amalgamated Company, Calculation of Goodwill or Capital Reserve. Treatment of Intercompany debts, Intercompany Owings, Unrealised Profits, Discharge of Debentures, Discharge of debenture holders to get same amount of interest in spite of change in rate of interest, Issue of new shares to raise additional capital.

Module – 5: Absorption and External Reconstruction 10 Hrs

Absorption and Reconstruction According to Ind AS 103 & 110. Forms of Purchase consideration – Deferred and Contingent consideration. Accounting Entries in the Books of Selling or Vendor Company, Ledger accounts in the books of Selling company, Journal entries in the books of Buying Company and preparation of Balance Sheet of the buying company , Calculation of Goodwill or Capital Reserve , Treatment of – Intercompany debts, Intercompany Owings, Unrealised Profits, Discharge of debentures, Discharge of debenture holders to get same amount of interest in spite of change in rate of interest , Issue of new shares to raise additional capital.

Skill Development

(These activities are only indicative, the Faculty member can innovate)

- Prepare the Depreciation Schedule II of Companies Act with imaginary figures.
- Prepare a report for a case of mergers or acquisitions. State the reasons why the firms decided to do so and the benefits derived by both companies.
- Analyse any 5 cases of amalgamations/ absorption of Joint stock companies with a brief description of each case – name of purchasing & selling companies, nature of merger/absorption and purchase consideration.
- Analyse the impact of covid on published financial statements by comparing the statements before and after the pandemic.

COURSE OUTCOMES

After completion of the course the students will be able to:

1. Construct the financial statements of company within the frame work of Ind AS.
2. Devise a plan for Redemption of Preference shares.
3. Evaluate the Restructuring of capital structure of public company ltd.
4. Develop the procedure involved in Amalgamation of companies.
5. Develop the procedure involved in Absorption of companies.

Books for Reference

- *Advanced Accounts – Jain &Narang – Kalyani Publications*
- *Advanced Corporate Accounting – S.N.Maheshwari*
- *Advanced accounting , Corporate accounting – Ashok Sehgal, Deepak Sehgal , Taxmann's*
- *Manual of Financial accounting and reporting- SanjeevSinghal& R. Shankaraiah*
- *Advanced Accounts – Gupta and Grewal*
- *Advanced Accounts – M.C.Shukla*

SEMESTER – II
C5 21 DC 202: BUSINESS STATISTICS – II

COURSE OBJECTIVES

This course aims to equip students with concepts of probability and its application along with certain statistical tools for business research decision making.

Module 1: Introduction to Probability **10 Hrs**

Importance and Definition of Probability - Random Variable- Sample Space - Favourable Events - Mutually Exclusive Events - Dependent and Independent Events - Permutations and Combinations (simple application problems) - Addition, and Multiplication Theorem of Probability - Conditional Probability - (simple application problems).

Module 2: Probability Distributions **15 Hrs**

Binomial Distribution (meaning and importance) and its Probability Function - Poisson Distribution (meaning and importance) and its probability function (simple application problems). Normal Distribution (meaning and importance) – Probability Function of Normal Distribution - Standard Normal Distribution and its applications (simple problems).

Module 3: Hypothesis Testing – I **10 Hrs**

Meaning and Importance of Hypothesis - Formation of Null and Alternative Hypothesis - Level of Significance – Level of Confidence
- Type I and Type II Errors - Hypothesis Testing: t-test, z-test, test for Single Mean and Test for Difference Between Two Means.

Module 4: Hypothesis Testing – II **10 Hrs**

Chi-square test - Importance - Conditions for Chi-square Test and applications problems - Degrees of Freedom - Contingency Table and its applications - One way ANOVA and its applications.

Module 5: Correlation and Regression Analysis **15 Hrs**

Meaning - Definition - Uses of Correlation - Types of Correlation -Scatter Diagram - - Karl Pearson's correlation coefficient - Spearman's Rank Correlation - Probable error.
Regression - Meaning and utility of Regression Analysis - Regression lines – X on Y - Yon X – Multiple Linear Regression – Fitting multiple linear regression models of the form $Y = a + b1x1 + b2x2 +...+ bnxn$ (involving two regressions)–Prediction-Regression coefficients and coefficient of determination.

Skill Development

(These activities are only indicative, the Faculty member can innovate)

1. Identify the type of probability distribution based on possible outcome of Business event.
2. Compute Correlation and Regression for identifying the useful drivers of a particular driven phenomenon using tools available in MS Excel.
3. Present business data using scatter plot for identifying direction and magnitude of the connect between two phenomena.
4. Understanding of occurrence of happening of an event and its distribution in different business scenarios.
5. Testing of hypothesised population parameter and present the testing results based on evidence thrown by sample statistic.

COURSE OUTCOMES

The students will be able to:

1. Illustrate the scope of Probability and its application for determination of certainty of possible outcome of event in the context of business transactions.
2. Determine the type of probability distribution on the basis of possible outcome of Business event.
3. Use the appropriate test of hypothesis for single mean and two means.
4. Justify the application of Chi – Square Test and ANOVA for testing of hypothesis in accordance with merit of the case.
5. Examine the applicability and implication of correlation and regression analysis in determining the relationship between two or more variables.

Books for Reference

- *Croxton F.E, Cowden D.J and KelinS(1973):Applied General Statistics., PHI.*
- *Ken Black, Business Statistics, Wiley.*
- *FreundJE and WalpoleRE(1987) Mathematical Statistics(4thedition) PHI.*
- *GoonA.M., GuptaM.K.,Das Gupta.B.(1991), Fundamentals of Statistics Vol.I,World Press, Calcutta.*
- *Gupta, S.C., and V.K. Kapoor (2001), Fundamentals of Mathematical Statistics: Sultan Chand & Sons.*
- *MedhiJ (1992), Statistical Methods: An introductory text, NewAge.*
- *VeerarajanT, Probability, Statistic sand Random process, TataMcGran Hill*
- *J KSharma(2007),Business Statistics (Pearson Education India)*
- *Naval Bajpai (2009),Business Statistics (Pearson Education India)*
- *Anderson T.W. and Sclove S.L (1978) An Introduction to the Statistical*
- *Analysis of Data, Houghton Miffin&Co.*
- *Cooke,Cramer and Clarke:Basic Statistical Computing, Chapman and Hall.*

- *Mood A.M.Graybill F.A. and Boes D.C. (1974): Introduction to the Theory of Statistics, McGraw Hill.*
- *Snedecor G.W. and CochranW.G.(1967):Statistical Methods. Iowa State University Press.*
- *Spiegel, M.R. (1967): Theory &Problems of Statistics, Schaum'spublishingSeries.*
- *KVSSarma, Statistics Made Simple :Do it yourself on PC(PHI)*
- *PurohitS.G. et.al.Statistics using R.*
- *John Verzani (2005): Using R for Introductory Statistics, CHAPMAN&HALL/CRC*

SEMESTER - II

C5 21 DC 203: BUSINESS ECONOMICS

COURSE OBJECTIVES

The course aims to familiarize the students with the fundamental concepts of economics and its applicability to business environment.

Module– 1: Business Economics **4 Hrs**

Meaning–Definitions–Characteristics–Scope of Business Economics-Uses and Objectives of Business Economics– Micro & Macro Economics. Economic sustainability. Sustainable development indicators.

Module– 2: Consumer Behaviour **15 Hrs**

Approaches to the Study of Consumer Behaviour-Cardinal Approach-Law of Equi-Marginal Utility – Ordinal Approach – Indifference Curve Analysis – Properties – Consumer Surplus: Meaning – Analysis – Limitations- Consumer Sovereignty – Limitations.

Module– 3: Theory of Demand and Analysis **15 Hrs**

Demand–Demand Determinants–Law of Demand–Characteristics- Exceptions-Elasticity of Demand – Price Elasticity – Types – Determining Factors–Change in Demand and Elasticity of Demand – Business Applications of Price Elasticity– Concepts of Income and Cross Elasticity of Demand – Price Elasticity of Demand Measurement By Total Outlay Method including mathematical problems- Survey of buyer's intention – Collective opinion – Trend projection – Economic Indicator. Demand forecasting methods for a new product including mathematical problems.

Module– 4: Production Function **8 Hrs**

Law of Supply–Meaning–Determinants of Supply. Production Function: Equilibrium Though Isoquants and Isocosts –Types of Cost- relationship between different types of costs and breakeven analysis.

Module– 5: Market Structure **12 Hrs**

Perfect Competition–Features–Price and Output Determination–Influence of Time Element on Price and Output–Monopoly– Features– Price and Output Determination–Price Discrimination– Price Output Determination Under Discriminating Monopoly. Monopolistic Competition–Features–Price and Output Determination in Short Run and in Industry – Features of Duopoly and Oligopoly.

Module– 6: Business Cycles **6 Hrs**

Business Cycles–Phases of Business cycle–Effects of Business Cycle–Theories of business cycles- Multiplier and accelerator theory – Keynesian theory –

Measures to control the Business cycle–Monetary and fiscal policy- Inflation-Causes and Measures.

Skill Development

(These activities are only indicative, the Faculty member can innovate)

1. Draft a diagrammatic representation of inflation rates for specific products using secondary data from websites
2. Analyse and report the case studies that will have impact on business decision-making in each chapter.
3. Conduct a survey report on the demand forecasting for a product.
4. Choose a product and apply price elasticity in real market conditions.
5. Prepare detailed charts on Consumer Surplus.
6. Present a diagram showing business cycles.
7. Conduct a small survey understand consumer behaviour in situations like an epidemic or pandemic
8. Conduct minor survey to understand the consumption and saving pattern of consumers in the last two years

COURSE OUTCOMES

After the Course the students will be able to:

1. Explain the Meaning, scope of Business economics and role of business economists in the context of Business decisions.
2. Illustrate the range of approaches to the study of consumer behavior and its implications.
3. Examine the law of demand and its implications on demand conditions and price elasticities for forecasting demand of product or service.
4. Examine the law of supply and its implications on production function for determination of output.
5. Compare and contrast the type of market structure and its implications on Pricing and Output decisions.
6. Relate the change of conditions of Business Cycles and its implications on Monetary and Fiscal policy with business decision making.

Books for Reference

- *D.M.Mithani: Business Economics.*
- *Dr.P.N.Reddy &H.R.Appanaiah: Essentials of Business Economics*
- *H.CraigPetersen &W.Cris Lewis:Managerial Economics,PHI.*
- *JoelDean: Managerial Economics.*
- *K.K.Dewett: EconomicTheory.*
- *M.L. Seth: Test Book of Economic Theory.*
- *MoteV.L. Peul.S &G. S. Gupta: Managerial Economics,TMH.*
- *Petersen &Lewis: Managerial Economics.*
- *Sankaran: Business Economics.*
- *Varsheney & Maheswari: Managerial Economics*

SEMESTER II
UG 21 FC 201: ENVIRONMENTAL STUDIES

COURSE OBJECTIVES

The course aims to train students to cater to the need for ecological citizenship through developing a strong foundation on the critical linkages between ecology and society.

Module 1 Introduction to Environmental Studies 2 Hrs

Multidisciplinary nature of environmental studies; Scope and importance; Concept of sustainability and sustainable development.

Module 2 Ecosystem 4 Hrs

What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies on the following a) Forest ecosystem b) Grassland ecosystem c) Desert ecosystem; Aquatic ecosystem (Ponds, streams, lakes, rivers, ocean, estuaries)

Module 3 Natural Resources Renewable and Non-Renewable Resources 6 Hrs

Land resources and land-use change; Land Degradation, soil erosion and desertification. Deforestation: Causes and impacts due to mining, dam building on Environment, forests, biodiversity and tribal populations. Water: use and over-exploitation of surface and groundwater, floods, droughts, conflicts over Water (International and inter-state). Energy resources: renewable and non-renewable energy resources, use of alternative energy resources growing energy needs, case studies.

Module 4 Biodiversity and Conservation 6 Hrs

Level of biological diversity: Genetic, species and Ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hotspots. India as a mega-biodiversity nation; Endangered and endemic species of India. Threats of biodiversity; Habitat loss, poaching of wildlife, man-wildlife conflict, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and informational value.

Module 5 Environmental Pollution, Policies & Practices 7 Hrs

Environmental Pollution: types, causes, effects and control; Air, water, soil, and noise pollution, Nuclear hazards and human health risk. Solid waste management, Control measures of Urban and Industrial waste. Pollution case studies.

Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and Agriculture. Environment Laws: Environmental Protection Act; Air (Prevention and Control of Pollution) Act; Water (Prevention and Control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto Protocols and Convention on Biological Diversity (CBD). Nature Reserves, tribal populations and rights, and human wildlife conflict in Indian context.

Module 6 Human Communities and The Environment 5 Hrs

Human population growth: Impact on Environment, human health and welfare. Resettlement and rehabilitation of project affected persons; case studies. Disaster management: floods, earthquake, cyclones and landslides. Environmental movements: Chipko, Silent Valley, Bishnois of Rajasthan. Environmental ethics: Role of Indian an other religious and cultures in environmental conservation.

Environment communication and public awareness, case studies (e.g CNG vehicles in Delhi)

COURSE OUTCOMES

After completion of the course the students will be able to:

1. Identify the environmental factors that determine sustainable development.
2. Describe an ecosystem along with its many components.
3. Identify the various natural resources and analyse the impact of their degradation.
4. Explain the concept of biodiversity in the global and Indian scenarios along with the threats and methods of conservation.
5. Describe the different types of environmental pollutions, causes of climate change and the various environment protections laws.
6. Analyze the impact of population growth on the environment and the various rehabilitation measures using case studies.

Book for Reference

- Nandini N., Sunitha N. and Sucharita Tandon; Environmental Studies; 9th Edition; Bangalore; Sapna Book House; 2013.
- Michael L. McKinney, Robert M. Schoch and Logan Yonavjak; Environmental Science Systems & Solutions; 4th Edition; Canada; Jones and Barlett Publishers; 2007.

- Eli Minkoff & Pamela Baker; Biology Today: An Issues Approach; 3rd Edition; New York; Garland Publishers; 2004.
- K. Park; Preventive and Social Medicine; 25th Edition; Jabalpur; Banarsidas Bhanot Publications; 2020 (pp. 16- 19, 24-27).
- Dr. Sheila Chander Vir; Public Health Nutrition in Developing Countries; 1st Edition; New Delhi; Woodhead Publishing India; 2011.
- Sadgopal M. & Sagar A; Can Public Health open up to the AYUSH Systems and give space for People's views of health and disease?; July – September; 2007.
- Sekhsaria P.; Conservation in India and the Need to Think Beyond 'Tiger vs. Tribal'. Biotropica; Volume 39 No.5; September; 2007. (pp. 575-577).
- G. Tyler Miller and Scott E. Spoolman; Environmental
- Science; 13th Edition; New Delhi; Cengage Learning; 2012.
- UNDP; The Human Development Report, The Rise of the South: Human Progress in Diverse World. New York; 2013.
- Wani M. & Kothari A.; Protected Areas and Human Rights India: The Impact of the Official Conservation Model. Policy Matters, 100-114; 2007