



ANNAMALAI UNIVERSITY

A State University Accredited with 'A' Grade by NAAC



FACULTY OF ARTS

DEPARTMENT OF BUSINESS ADMINISTRATION

MBA

INFRASTRUCTURE MANAGEMENT

2 YEARS FULL-TIME PROGRAM
(CBCS)

REGULATIONS

2019

CURRICULUM & SYLLABUS





ANNAMALAI UNIVERSITY

REGULATIONS FOR THE TWO-YEAR POST GRADUATE PROGRAMMES UNDER CHOICE BASED CREDIT SYSTEM (CBCS)

These Regulations are common to all the students admitted to the Two-Year Master's Programmes in the Faculties of Arts, Science, Indian Languages, Education, Marine Sciences, and Fine Arts from the academic year 2019-2020 onwards.

1. Definitions and Nomenclature

- 1.1 **University** refers to Annamalai University.
- 1.2 **Department** means any of the academic departments and academic centres at the University.
- 1.3 **Discipline** refers to the specialization or branch of knowledge taught and researched in higher education. For example, Botany is a discipline in the Natural Sciences, while Economics is a discipline in Social Sciences.
- 1.4 **Programme** encompasses the combination of courses and/or requirements leading to a Degree. For example, M.A., M.Sc.
- 1.5 **Course** is an individual subject in a programme. Each course may consist of Lectures/Tutorials/Laboratory work/Seminar/Project work/Experiential learning/ Report writing/viva-voce etc. Each course has a course title and is identified by a course code.
- 1.6 **Curriculum** encompasses the totality of student experiences that occur during the educational process.
- 1.7 **Syllabus** is an academic document that contains the complete information about an academic programme and defines responsibilities and outcomes. This includes course information, course objectives, policies, evaluation, grading, learning resources and course calendar.
- 1.8 **Academic Year** refers to the annual period of sessions of the University that comprises two consecutive semesters.
- 1.9 **Semester** is a half-year term that lasts for a minimum duration of 90 days. Each academic year is divided into two semesters.
- 1.10 **Choice Based Credit System** A mode of learning in higher education that enables a student to have the freedom to select his/her own choice of elective courses across various disciplines for completing the Degree programme.
- 1.11 **Core Course** is mandatory and an essential requirement to qualify for the Degree.
- 1.12 **Elective Course** is a course that a student can choose from a range of alternatives.
- 1.13 **Value-added Courses** are optional courses that complement the students' knowledge and skills and enhance their employability.
- 1.14 **Credit** refers to the quantum of course work in terms of number of class hours in a semester required for a programme. The credit value reflects the content and duration of a particular course in the curriculum.
- 1.15 **Credit Hour** refers to the number of class hours per week required for a course in a semester. It is used to calculate the credit value of a particular course.
- 1.16 **Programme Outcomes (POs)** are statements that describe crucial and essential knowledge, skills and attitudes that students are expected to achieve and can reliably manifest at the end of a programme.
- 1.17 **Programme Specific Outcomes (PSOs)** are statements that list what the graduate of a specific programme should be able to do at the end of the programme.

1.18 Learning Objectives also known as Course Objectives are statements that define the expected goal of a course in terms of demonstrable skills or knowledge that will be acquired by a student as a result of instruction.

1.19 Course Outcomes (COs) are statements that describe what students should be able to achieve/demonstrate at the end of a course. They allow follow-up and measurement of Learning Objectives.

1.20 Grade Point Average (GPA) is the average of the grades acquired in various courses that a student has taken in a semester. The formula for computing GPA is given in section 11.3

1.21 Cumulative Grade Point Average (CGPA) is a measure of overall cumulative performance of a student over all the semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters.

1.22 Letter Grade is an index of the performance of a student in a particular course. Grades are denoted by the letters S, A, B, C, D, E, RA, and W.

2. Programmes Offered and Eligibility Criteria

The Department of Business Administration offers seven Two-Year MBA Programmes and the eligibility criteria for each of these programmes are detailed below:

Faculty of Arts		
S.No.	Programme	Eligibility
1.	M.B.A. Business Analytics	The candidate who has undergone 10+2+3/4 pattern of study in any discipline with a minimum of 50% marks in Part- III. Admission is through TANCET.
2.	M.B.A. Dual Specialization	
3.	M.B.A. Financial Management	
4.	M.B.A. Human Resource Management	
5.	M.B.A. Infrastructure Management	
6.	M.B.A. International Business Management	
7.	M.B.A. Marketing Management	

2.1 In the case of SC/ST and Differently-abled candidates, a pass is the minimum qualification for all the above Programmes.

3. Reservation Policy

Admission to the various programmes will be strictly based on the reservation policy of the Government of Tamil Nadu.

4. Programme Duration

- 4.1 The Two Year Master's Programmes consist of two academic years.
- 4.2 Each academic year is divided into two semesters, the first being from July to November and the second from December to April.
- 4.3 Each semester will have 90 working days (18 weeks).

5 Programme Structure

5.1 The Two Year Master's Programme consists of Core Courses, Elective Courses (Departmental & Interdepartmental), and Project.

5.2 Core courses

- 5.2.1 These are a set of compulsory courses essential for each programme.
- 5.2.2 The core courses include both Theory (Core Theory) and Practical (Core Practical) courses.

5.3 Elective courses

5.3.1 Departmental Electives (DEs) are the Electives that students can choose from a range of Electives offered within the Department.

5.3.2 **Interdepartmental Electives (IDEs)** are Electives that students can choose from amongst the courses offered by other departments of the same faculty as well as by the departments of other faculties.

5.3.3 Students shall take a combination of both DEs and IDEs.

5.4 Experiential Learning

5.4.1 Experiential learning provides opportunities to students to connect principles of the discipline with real-life situations.

5.4.2 In-plant training/field trips/internships/industrial visits (as applicable) fall under this category.

5.4.3 Experiential learning is categorised as Core.

5.5 Project

5.5.1 Each student shall undertake a Project in the final semester.

5.5.2 The Head of the Department shall assign a Research Supervisor to the student.

5.5.3 The Research Supervisor shall assign a topic for research and monitor the progress of the student periodically.

5.5.4 Students who wish to undertake project work in recognised institutions/industry shall obtain prior permission from the University. The Research Supervisor will be from the host institute, while the Co-Supervisor shall be a faculty in the parent department.

5.6 Value added Courses (VACs)

5.6.1 Students may also opt to take Value added Courses beyond the minimum credits required for award of the Degree. VACs are outside the normal credit paradigm.

5.6.2 These courses impart employable and life skills. VACs are listed in the University website and in the Handbook on Interdepartmental Electives and VACs.

5.6.3 Each VAC carries 2 credits with 30 hours of instruction, of which 60% (18 hours) shall be Theory and 40% (12 hours) Practical.

5.6.4 Classes for a VAC are conducted beyond the regular class hours and preferably in the II and III Semesters.

5.7 Online Courses

5.7.1 The Heads of Departments shall facilitate enrolment of students in Massive Open Online Courses (MOOCs) platform such as SWAYAM to provide academic flexibility and enhance the academic career of students.

5.7.2 Students who successfully complete a course in the MOOCs platform shall be exempted from one elective course of the programme.

5.8 Credit Distribution

The credit distribution is organised as follows:

	Credits
Core Courses	65-75
Elective Courses	15
Project	6-8
Total (Minimum requirement for award of Degree)	90-95*

**Each Department shall fix the minimum required credits for award of the Degree within the prescribed range of 90-95 credits.*

5.9 Credit Assignment

Each course is assigned credits and credit hours on the following basis:

1 Credit is defined as

1 Lecture period of one hour per week over a semester

1 Tutorial period of one hour per week over a semester

1 Practical/Project period of two or three hours (depending on the discipline) per week over a semester.

6 Attendance

6.1 Each faculty handling a course shall be responsible for the maintenance of *Attendance and Assessment Record* for candidates who have registered for the course.

6.2 The Record shall contain details of the students' attendance, marks obtained in the Continuous Internal Assessment (CIA) Tests, Assignments and Seminars. In addition the Record shall also contain the organisation of lesson plan of the Course Instructor.

6.3 The record shall be submitted to the Head of the Department once a month for monitoring the attendance and syllabus coverage.

6.4 At the end of the semester, the record shall be duly signed by the Course Instructor and the Head of the Department and placed in safe custody for any future verification.

6.5 The Course Instructor shall intimate to the Head of the Department at least seven calendar days before the last instruction day in the semester about the attendance particulars of all students.

6.6 Each student shall have a minimum of 75% attendance in all the courses of the particular semester failing which he or she will not be permitted to write the End-Semester Examination. The student has to redo the semester in the next year.

6.7 Relaxation of attendance requirement up to 10% may be granted for valid reasons such as illness, representing the University in extracurricular activities and participation in NCC/NSS/YRC/RRC.

7 Mentor-Mentee System

7.1 To help the students in planning their course of study and for general advice on the academic programme, the Head of the Department will attach certain number of students to a member of the faculty who shall function as a Mentor throughout their period of study.

7.2 The Mentors will guide their mentees with the curriculum, monitor their progress, and provide intellectual and emotional support.

7.3 The Mentors shall also help their mentees to choose appropriate electives and value-added courses, apply for scholarships, undertake projects, prepare for competitive examinations such as NET/SET, GATE etc., attend campus interviews and participate in extracurricular activities.

8 Examinations

8.1 The examination system of the University is designed to systematically test the student's progress in class, laboratory and field work through Continuous Internal Assessment (CIA) Tests and End-Semester Examination (ESE).

8.2 There will be two CIA Tests and one ESE in each semester.

8.3 The Question Papers will be framed to test different levels of learning based on Bloom's taxonomy viz. Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation/Creativity.

8.4 Continuous Internal Assessment Tests

8.4.1 The CIA Tests shall be a combination of a variety of tools such as class tests, assignments, seminars, and viva-voce that would be suitable to the course. This requires an element of openness.

8.4.2 The students are to be informed in advance about the assessment procedures.

8.4.3 The pattern of question paper will be decided by the respective faculty.

8.4.4 CIA Test-I will cover the syllabus of the first two Units while CIA Test-II will cover the last three Units.

8.4.5 CIA Tests will be for two to three hours duration depending on the quantum of syllabus.

8.4.6 A student cannot repeat the CIA Test-I and CIA Test-II. However, if for any valid reason, the student is unable to attend the test, the prerogative of arranging a special test lies with the teacher in consultation with the Head of the Department.

8.5 End Semester Examinations (ESE)

8.5.1 The ESE for the first/third semester will be conducted in November and for the second/fourth semester in May.

8.5.2 A candidate who does not pass the examination in any course(s) of the first, second and third semesters will be permitted to reappear in such course(s) that will be held in April and November in the subsequent semester/year.

8.5.3 The ESE will be of three hours duration and will cover the entire syllabus of the course.

9 Evaluation

9.1 Marks Distribution

9.1.1. Each course, both Theory and Practical as well as Project/Internship/Field work/In-plant training shall be evaluated for a maximum of 100 marks.

9.1.2 For the theory courses, CIA Tests will carry 25% and the ESE 75% of the marks.

9.1.3 For the Practical courses, the CIA Tests will constitute 40% and the ESE 60% of the marks.

9.2. Assessment of CIA Tests

9.2.1 For the CIA Tests, the assessment will be done by the Course Instructor

9.2.2 For the Theory Courses, the break-up of marks shall be as follows:

	Marks
Test-I & Test-II	15
Seminar	05
Assignment	05
Total	25

9.2.3 For the Practical Courses (wherever applicable), the break-up of marks shall be as follows:

	Marks
Test-I	15
Test-II	15
Viva-voce and Record	10
Total	40

9.3 Assessment of End-Semester Examinations

9.3.1 Evaluation for the ESE is done by both External and Internal examiners (Double Evaluation).

9.3.2 In case of a discrepancy of more than 10% between the two examiners in awarding marks, third evaluation will be resorted to.

9.4 Assessment of Project/Dissertation

9.4.1 The Project Report/Dissertation shall be submitted as per the guidelines laid down by the University.

9.4.2 The Project Work/Dissertation shall carry a maximum of 100 marks.

9.4.3 CIA for Project will consist of a Review of literature survey, experimentation/field work, attendance etc.

9.4.4 The Project Report evaluation and viva-voce will be conducted by a committee constituted by the Head of the Department.

9.4.5 The Project Evaluation Committee will comprise the Head of the Department, Project Supervisor, and a senior faculty.

9.4.6 The marks shall be distributed as follows:

Continuous Internal Assessment (25 Marks)		End Semester Examination (75 Marks)	
Review-I 10	Review-II: 15	Project / Dissertation Evaluation	Viva-voce
		50	25

9.5 Assessment of Value-added Courses

9.5.1 Assessment of VACs shall be internal.

9.5.2 Two CIA Tests shall be conducted during the semester by the Department(s) offering VAC.

9.5.3 A committee consisting of the Head of the Department, faculty handling the course and a senior faculty member shall monitor the evaluation process.

9.5.4 The grades obtained in VACs will not be included for calculating the GPA.

9.6 Passing Minimum

9.6.1 A student is declared to have passed in each course if he/she secures not less than 40% marks in the ESE and not less than 50% marks in aggregate taking CIA and ESE marks together.

9.6.4 A candidate who has not secured a minimum of 50% of marks in a course (CIA + ESE) shall reappear for the course in the next semester/year.

1. Conferment of the Master's Degree

A candidate who has secured a minimum of 50% marks in all courses prescribed in the programme and earned the minimum required credits shall be considered to have passed the Master's Programme.

11. Marks and Grading

- 11.1 The performance of students in each course is evaluated in terms Grade Point (GP).
- 11.2 The sum total performance in each semester is rated by Grade Point Average (GPA) while Cumulative Grade Point Average (CGPA) indicates the Average Grade Point obtained for all the courses completed from the first semester to the current semester.
- 11.3 The GPA is calculated by the formula

$$GPA = \frac{\sum_{i=1}^n C_i G_i}{\sum_{i=1}^n C_i}$$

where, C_i is the Credit earned for the Course i in any semester;

G_i is the Grade Point obtained by the student for the Course i and

n is the number of Courses passed in that semester.

- 11.4 CGPA is the Weighted Average Grade Point of all the Courses passed starting from the first semester to the current semester.

$$CGPA = \frac{\sum_{i=1}^m \sum_{j=1}^n C_{ij} G_{ij}}{\sum_{i=1}^m \sum_{j=1}^n C_{ij}}$$

where, C_i is the Credit earned for the Course i in any semester;

G_i is the Grade Point obtained by the student for the Course i and

n is the number of Courses passed in that semester.

m is the number of semesters

- 11.5 Evaluation of the performance of the student will be rated as shown in the Table.

Letter Grade	Grade Points	Marks %
S	10	90 and above
A	9	80-89
B	8	70-79
C	7	60-69
D	6	55-59
E	5	50-54
RA	0	Less than 50
W	0	Withdrawn from the examination

- 11.6 **Classification of Results.** The successful candidates are classified as follows:

- 11.6.1 For **First Class with Distinction:** Candidates who have passed all the courses prescribed in the Programme *in the first attempt* with a CGPA of 8.25 or above within the programme duration. Candidates who have withdrawn from the End Semester Examinations are still eligible for First Class with Distinction (*See Section 12 for details*).
- 11.6.2 For **First Class:** Candidates who have passed all the courses with a CGPA of 6.5 or above.
- 11.6.3 For **Second Class:** Candidates who have passed all the courses with a CGPA between 5.0 and less than 6.5.
11. 6.4 Candidates who obtain highest marks in all examinations at the first appearance alone will be considered for University Rank.

11.7 Course-Wise Letter Grades

- 11.7.1 The percentage of marks obtained by a candidate in a course will be indicated in a letter grade.
- 11.7.2 A student is considered to have completed a course successfully and earned the credits if he/she secures an overall letter grade other than RA.

- 11.7.3 A course successfully completed cannot be repeated for the purpose of improving the Grade Point.
- 11.7.4 A letter grade RA indicates that the candidate shall reappear for that course. The RA Grade once awarded stays in the grade card of the student and is not deleted even when he/she completes the course successfully later. The grade acquired later by the student will be indicated in the grade sheet of the Odd/Even semester in which the candidate has appeared for clearance of the arrears.
- 11.7.5 If a student secures RA grade in the Project Work/Field Work/Practical Work/Dissertation, he/she shall improve it and resubmit if it involves only rewriting/ incorporating the clarifications suggested by the evaluators or he/she can re-register and carry out the same in the subsequent semesters for evaluation.

12. Provision for Withdrawal from the End Semester Examination

- 12.1 The letter grade W indicates that a candidate has withdrawn from the examination.
- 12.2 A candidate is permitted to withdraw from appearing in the ESE for one course or courses in **ANY ONE** of the semesters **ONLY** for exigencies deemed valid by the University authorities.
- 12.3 **Permission for withdrawal from the examination shall be granted only once during the entire duration of the programme.**
- 12.3 Application for withdrawal shall be considered **only** if the student has registered for the course(s), and fulfilled the requirements for attendance and CIA tests.
- 12.4 The application for withdrawal shall be made ten days prior to the commencement of the examination and duly approved by the Controller of Examinations. Notwithstanding the mandatory prerequisite of ten days notice, due consideration will be given under extraordinary circumstances.
- 12.5 Withdrawal is **not** granted for arrear examinations of courses in previous semesters and for the final semester examinations.
- 12.6 Candidates who have been granted permission to withdraw from the examination shall reappear for the course(s) when the course(s) are offered next.
- 12.7 Withdrawal shall not be taken into account as an appearance for the examination when considering the eligibility of the candidate to qualify for First Class with Distinction.

13. Academic misconduct

Any action that results in an unfair academic advantage/interference with the functioning of the academic community constitutes academic misconduct. This includes but is not limited to cheating, plagiarism, altering academic documents, fabrication/falsification of data, submitting the work of another student, interfering with other students' work, removing/defacing library or computer resources, stealing other students' notes/assignments, and electronically interfering with other students'/University's intellectual property. Since many of these acts may be committed unintentionally due to lack of awareness, students shall be sensitised on issues of academic integrity and ethics.

14. Transitory Regulations

Wherever there has been a change of syllabi, examinations based on the existing syllabus will be conducted for two consecutive years after implementation of the new syllabus in order to enable the students to clear the arrears. Beyond that, the students will have to take up their examinations in equivalent subjects, as per the new syllabus, on the recommendation of the Head of the Department concerned.

- 15. *Notwithstanding anything contained in the above pages as Rules and Regulations governing the Two Year Master's Programmes at Annamalai University, the Syndicate is vested with the powers to revise them from time to time on the recommendations of the Academic Council.*

ASSESSMENT PATTERN
Continuous Internal Evaluation (25 Marks)

Bloom's Category Marks (out of 25)	Test	Assignment	Seminar	Non CIA		
				Activities	Industrial Visit	Quiz
Knowledge	√					√
Comprehension	√	√	√		√	√
Apply			√	√		
Analyze	√					√
Evaluate	√					
Create	√		√	√		

End Semester Examination (75 Marks)

Bloom's Category Marks	Test (75 Marks)
Knowledge	
Comprehension	
Application	
Analysis	
Synthesis	
Evaluation	
Creation	



Annamalai University

Department of Business Administration

M.B.A. (Infrastructure Management)

(Two Year) Programme

Programme Code: ABUS28

Programme Structure

(For students admitted from the academic year 2019-2020)

Course Code	Course Title	Hours per week		C	Marks		
		L	P		CIA	ESE	Total
19BIFC101	Core 1: Management Process	4		2	25	75	100
19BIFC102	Core 2: Managerial Economics	4		3	25	75	100
19BIFC103	Core 3: Organizational Behaviour	4		2	25	75	100
19BIFC104	Core 4: Accounting for Managers	4		3	25	75	100
19MBAX115	Elective 1: Interdepartmental Elective			3	25	75	100
19BIFC106	Core 5: Computer Application in Management	4		3	25	75	100
19BIFC107	Core 6: Project Entrepreneurship and small Business Management	4		3	25	75	100
19BIFC108	Core 7: Research Methodology	4		3	25	75	100
19BIFV109	Comprehensive viva (Industrial visit)			2	25	75	100
	Total			21	225	675	900
19BIFC201	Core 8: Financial Management	4		3	25	75	100
19BIFC202	Core 9: Marketing Management	4		2	25	75	100
19BIFC203	Core 10: Human Resource Management	4		3	25	75	100
19BIFC204	Core 11: Production and Materials Management	4		3	25	75	100
19MBAX205	Elective 2: Interdepartmental Elective	3		3	25	75	100
19BIFC206	Core 12: Decision Support System and MIS	4		3	25	75	100
19BIFE207	Elective 1: Departmental Elective	3		3	25	75	100
19BIFE208	Elective 2: Departmental Elective	3		3	25	75	100
19BIFV209	Exposure to Small Medium Enterprises – Project Work			2	25	75	100
	Total			25	225	675	900
	Value Added Course (VAC)	Carries Additional Credits					
19BIFC301	Core 13: Operations Research	4		3	25	75	100
19BIFC302	Core 14: Rural Infrastructure Planning and Management	4		3	25	75	100
19BIFC303	Core 15: Project Legislations	4		3	25	75	100

19BIFC304	Core 16: International Business and Export Management	4		3	25	75	100
19MBAX305	Elective 3: Interdepartmental Elective			3	25	75	100
19BIFC306	Core 17: Soft skills	4		4	25	75	100
19BIFE307	Elective 3: Departmental Elective	3		3	25	75	100
19BIFE308	Elective 4: Departmental Elective	3		3	25	75	100
19BIFV309	Internship Project and Viva– voce			2	25	75	100
	Total			24	200	600	800
	Value Added Course (VAC)			Carries Additional Credits			
19BIFC401	Core 18: IT Infrastructure Management	4		3	25	75	100
19BIFC402	Core 19: Business Policy and Strategic Management	4		3	25	75	100
19BIFC403	Core 20: Supply Chain Management for Infrastructure	4		3	25	75	100
19BIFC404	Core 21: Indian Ethos and Values	4		2	25	75	100
19MBAX405	Elective 4: Interdepartmental Elective	3		3	25	75	100
19BIFC406	Core 22: International Infrastructure Management	4		3	25	75	100
19BIFE407	Elective 5: Departmental Elective	3		3	25	75	100
19BIFE408	Elective 6: Departmental Elective	3		3	25	75	100
19BIFC409	Comprehensive viva			2	25	75	100
	Total			25	225	675	900
	Total Credit			95			

Elective Courses

Departmental Electives (DE)

Course Code	Course Title	Hours per week		C	Marks		
		L	P		CIA	ESE	Total
19BIFE207	Infrastructure Planning	3		3	25	75	100
19BIFE208	Strategic Planning for Infrastructure Sectors	3		3	25	75	100
19BIFE307	Value Engineering	3		3	25	75	100
19BIFE308	Project Procurement and Quality Management in Construction	3		3	25	75	100
19BIFE407	Environmental Impact and Risk Assessment	3		3	25	75	100
19BIFE408	Disaster Mitigation and Management	3		3	25	75	100

Interdepartmental Electives:

19MBAX115	Management Process (CBCS Elective)	Elective	4	75	25	100
19MBAX205	Marketing Management (CBCS Elective)	Elective	4	75	25	100
19MBAX305	Training and Development (CBCS Elective)	Elective	4	75	25	100
19MBAX405	Entrepreneurship Management (CBCS Elective)	Elective	4	75	25	100

Value added courses:

Even Semester	19BVAC211	Small Business Management	Additional Credit
Even Semester	19BVAC212	Introduction to Business Analytics	Additional Credit
Even Semester	19BVAC213	E-Governance and Cyber Law	Additional Credit
Odd Semester	19BVAC311	Machine Learning	Additional Credit
Odd Semester	19BVAC312	Block Chain Technology	Additional Credit
Odd Semester	19BVAC313	Sustainable Development	Additional Credit

Programme Outcomes

- PO1: Critical thinking
 PO2: Cultivating Cognitive skills required in the job market
 PO3: Effective Communication
 PO4: Familiarity with ICT to thrive in the information age
 PO5: Cultivating aptitude for research
 PO6: Respect for alternate view-points including those conflicting with one's own perspectives
 PO7: Ability to work individually and as members in a team
 PO8: Upholding ethical standards
 PO9: Acting local while thinking global
 PO10: Commitment to gender equality
 PO11: Commitment to Sustainable development
 PO12: Lifelong learning

Programme Specific Outcomes

- PSO1: Acquire basic knowledge of management, its functions, disciplines and its relevance and importance for a successful infrastructure development.
- PSO2: Acquire in depth knowledge of specific courses in the Infrastructure Management, including present global perspective with an ability to evaluate, analyse, discriminate and blend existing, indigenous and new knowledge and integrate the same.
- PSO3: Analyse and synthesize problems related to infrastructure management by applying critical thinking in a practical and policy context.
- PSO4: Evaluate a wide range of potential solutions and to arrive at practical solutions feasibly considering public health and safety, cultural, societal and environmental factors in the core areas.
- PSO5: Obtaining information relevant to problems through literature surveys and experiments and applying of research methodology, techniques and tools design

analyse and interpret data to view things in broader perspective and contribute individually and group to the technological knowledge and scientific development of infrastructure.

PSO6: Understanding group dynamics, recognise opportunities and contribute positively in scientific research with rational analysis in order to achieve common goals and further the learning of themselves as well as others towards infrastructure management.

PSO7: Develop strategies and procedures for successful implementation of infrastructure projects designed and developed for well-being of the society.

PO/CO	Programme Outcomes												Programme Specific Outcomes								
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8	
CO1																					
CO2																					
CO3																					
CO4																					
CO5																					
CO6																					

Learning Objectives

The objective of this course is

LO1: To impart knowledge in general management practice in an organization.

LO2: To provide managerial skills to students to manage an organization.

LO3: To impart knowledge in management activities like planning, organizing, staffing, directing, motivating and controlling.

Course Outcomes

Upon completion of the course students will be able to

CO1: Impart knowledge in general management practice like planning, organizing, staffing, directing, motivating and controlling in an organization.

CO2: Understand the need for team work, to work effectively in a team and to act as a global leader.

CO3: Improve the Cognitive skills related to Indian and global Organisation structure and to understand the different levels of management in an organisation .

CO4: Understand the need for quality policy and controlling techniques to be practiced in an organization.

CO5: Improve and develop the communication skills and the need for ethical business practice.

CO6: Develop conflict management plan and to solve the problems in an organization.

Unit-1 Introduction (14 h)

Evolution of Management thought, Managerial process, Functions, Skills and Roles in an Organization – Decision making and Problem solving. Understanding and managing group processes – Group decision making.

Unit-2 Planning (10 h)

Distinction between operational and strategic planning – Types of plans – Grouping of various types of plans – Steps in planning – Importance of policies – Types of policies – Principles of policy making – Policy formulation and Administration – Basic area of policy making.

Unit-3 Organising (10 h)

Authority Relationships – Line authority – Staff authority – Line organization – Pure line and Departmental line organization – Staff relationships – Line and Staff organization – Functional organization – Committee organization – Definition of Authority – Components of authority – Rational authority – Traditional authority – Charismatic authority – Limits of authority – Delegation of authority – Process of delegation – Principles of Delegation – Centralization and Decentralization.

Unit-4 Staffing and Directing (12 h)

Staffing Function – Nature and Purpose of staffing – Importance of staffing – Components of Staffing – Selection and Training – The Direction Function – Leadership – Co-ordination – Need for co-ordination – Types of Co-ordination – Pooled, Sequential, Reciprocal and Interdependence – Principles of Co-ordination – Approaches achieving effective Co-ordination – Problems of Co-ordination.

Unit-5 Supervising Control and MBO (14 h)

Supervision Function – Position of a supervisor – Qualities of a good supervisor – Role of a Supervisor – Key Man – Man in the middle – Middle marginal man – Human relations specialist – Essential requirements of effective supervision – Rensis Likert studies of supervision – Effectiveness – Concept of control – Importance of control – Span of control – An Integrated Control System – Management By Objective – Hierarchy of Objective – Qualitative and Quantitative Objective – Process of MBO – Management by Exception. **“Current Streams of Thought”**.

Text Books

1. Ramasamy.T, Principles of Management, Himalaya publishing House, Mumbai 2004.

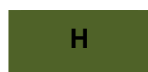
- Gupta.C.B., Management Theory and practice, Sultan Chand & Sons, New Delhi, 2011.

Supplementary Readings

- Stoner.J, Management, 6th Edition, New Delhi, Prentice hall of India.2003.
- Heinz Welhrichand Mark. V Cannice, Harold Koontz, Management (12th Edition) Tata McGraw hill, New Delhi,2012
- Bhushan Y.K, Fundamentals of Business organization and Management, Sultan Chand & Sons, New Delhi 2013.
- Samuel C, certo and S.Treviscerto, Modern Management, PHI Learning, New Delhi, 2008.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1	M												M							
CO2									H											
CO3		L																		
CO4														L						
CO5			M																	
CO6																				H



H High Correlation



M Medium Correlation



L Low Correlation

Semester – I

19BIFC102: Managerial Economics

**Credits : 3
Hours: 60**

Learning Objectives

The Objective of this course is

- LO1: To understand and learn the Economic theories and concepts to be adapted in Business Development.
- LO2: To impart knowledge in analytical skills enabling the students to face the challenges arising in Business organisation.
- LO3: To provide and help the students a vast Knowledge on Managerial Economics to become Business Entrepreneurs.

Course Outcomes

Upon completion of this course the students will be able to

- CO1: Understand the role of Economic theory and concepts in Management Decision making.
- CO2: Analyse the situations challenging the management environment in an organisation.
- CO3: Knowing the cost theories will be able to be effective manager in cost reduction.
- CO4: Handle the Micro and Macro Environment.
- CO5: Understand the challenges of Entrepreneur and build the confidence to do his own business.
- CO6: Manage any situation arising in Business environment.

Unit-1 Basic Concepts (14 h)

Nature and Scope of Managerial Economics – Economic theory and Managerial Economics – Demand Analysis and Forecasting – Demand determinants – Demand Distinctions – Demand Forecasting – Capital budgeting.

Unit-2 Cost Analysis (10 h)

Cost concepts and classifications – Cost output relationship in the long run and short run – Economies (Internal and External) and Diseconomies of scale – Cost control and Cost reduction – Production function – Isoquants, Isocost curves and Least cost combination.

Unit-3 Pricing Decisions (12 h)

Pure competition – Perfect competition – Policies and Practices – Pricing and output decisions under imperfect competition – Pricing Policies – Price discrimination – Methods of Pricing – Monopolistic Competition – Oligopoly.

Unit-4 Profit Analysis (10 h)

Profit theories – profit policy – Profit budget – Break even analysis – Break even chart – Theory of profit maximization.

Unit-5 Macro Economics and Business Decision (14 h)

Business Cycle and Business Policies – Current Industrial Policy and Monetary Policy and Fiscal Policy – National Income and Methods of its Estimation - Large Scale Industries and Small Scale Enterprises – Financial Institutions – Inflation: Nature and Causes – Meaning: Effects and cost – Inflation: Anticipated and Unanticipated – Inflation: Measures to control inflation. **“Current Streams of Thought”**.

Text Books

1. Varshney and Maheswari, Managerial Economics, Sultan Chand, New Delhi.2009.
2. Ahuja, H.L., Managerial Economics, S. Chand & Company Ltd., New Delhi, 2007.

Supplementary Readings

1. Mark Hirschey, EricBentzen – Managerial Economics – Cengage Learning.2016.
2. Luke M.Froeb , Brian T.McCann, Michael R. Ward, Shor – Managerial Economics: A Problem solving Approach – Cengage Learning, 2015
3. Joel Dean, *Managerial Economics*, PHI Learning Private Ltd., New Delhi, 2012.
4. Moti Paul S. Gupta, *Managerial Economics*, Tata McGraw Hill Pub., New Delhi, 2013.
5. Mithani, D.M., *Managerial Economics*, Himalaya Publishing House, New Delhi, 2014.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:													H							
CO2:		M														L				
CO3:																				
CO4:																	M			
CO5:			M																	H
CO6:											H									

H	High Correlation	M	Medium Correlation	L	Low Correlation
----------	-------------------------	----------	---------------------------	----------	------------------------

Learning Objective

The objective of this course is

- LO1: To learn and understand organizational behaviour concepts and models, moving from individual behaviour to group behaviour
- LO2: To explain the concepts of organizational behaviour and develop effective Human Relations Policies for effective performance.
- LO3: To provide the concepts of attitude, motivation and job satisfaction and related theories.

Course Outcome

Upon completion of the course students will be able to

- CO1: Understand individual behavior in organizations, including diversity, attitudes.
- CO2: Study job satisfaction, emotions, moods, personality, values, perception, decision making, and motivational theories.
- CO3: Recognize group behavior in organizations, including communication, leadership, power and politics, conflict, and negotiations.
- CO4: Unleash the organizational system, including organizational structures, culture, human resource and change.
- CO5: Analyze the Leadership Characteristics, organizational Conflicts.
- CO6: Know the importance of Organizational Change.

Unit –1 Organizational Behaviour: An Overview (14 h)

Historical Development, Behavioural sciences and Organizational behaviour organizational behaviour (OB) in global context, Managing worker diversity-Developing Assertive Behaviour Skills-Emerging Business Realities.

Unit-2 Learning-Attitudes-Values and –Job Satisfaction (10 h)

Learning: Definition and Importance, Theories of learning, Principles of learning, Shaping as managerial tool, Applications in organizations. Attitudes, Values and Job Satisfaction: Sources and types of attitudes, Attitude formation and change, Cognitive Dissonance Theory. Values: meaning, importance, source and types, and applications in organizations. Effects of employee attitude, Job related attitudes.

Unit –3 Personality & Personality Attributes -Perception -Creativity (10 h)

Personality: Foundations of individual behaviour, Personality, Meaning and Importance, Development of personality, Determinants of personality, Theories of personality, Relevance of personality to managers. Perception: Nature, Importance and Definition of Perception, Factors involved in perception, The Perceptual Process, Perceptual Selectivity and Organization, Applications in Organizations.-Creativity-process and Blocks.

Unit-4 Motivation-Culture-Group Dynamics (14 h)

Motivation: Theories of motivation, Motivation applied in organizations, Principles, applications - dimensions & Types of culture, Creating, Sustaining & Transmitting culture, Keeping cultures alive & How employees learn culture-Emotions & Emotional Intelligence-Handling Fear, Anger and Depression- Group Processes & Teams in Organizations -nature of groups, Stages of group development, Meaning of teams, Types of teams, characteristics of teams, Team development, Team decision making Interpersonal Communications-Increasing Personal and Interpersonal effectiveness through understanding and practicing, Transactional Analysis and Johari Window Model.

Unit-5 Leadership-Conflict-Organizational Change (12 h)

Leadership- Characteristics of Leading, Importance of Leading, Functions of Leading Power & Politics at work -nature & bases of power, power relationships, organizational politics, outcomes of power- Conflict, Negotiations sources of conflict, Resolution techniques, and stimulation techniques. Stress: Meaning, factors responsible for stress, coping strategies & Stress Management-types of change, managing organizational change, resistance to change, overcoming

resistance to change. Meaning & values of organizational development, Organizational development approaches and techniques. “**Current Streams of Thought**”.

Text Books

1. Stephen P Robbins; Tim Judge, New York, NY : Pearson, [2019], Organizational behavior.Organization and Administration.18th edition.
2. Robbins, P. Stephen, Timothy, A. Judge, and Neharika Vohra (2017). Organizational Behavior, New Delhi: Pearson Education

Supplementary Reading

1. HumanBehaviour at work - Keith Davis – (2018) Tata McGraw Hill book Company.
2. McShane& Von Glinow (2015). Organisational Behavior, 6/e; New Delhi: McGraw Hill Education
3. Luthans, Fred (2013). Organisational Behavior, 12/e; New Delhi: McGraw Hill Education
4. Jerald Greenberg, Behaviour in Organization, PHI Learning. 10th edition. 2011
5. UdaiPareek, Understanding Organisational Behaviour, 3rd Edition, Oxford Higher Education, 2011.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:	H												L							
CO2:		M					M							L						
CO3:							H									M				
CO4:																	H			
CO5:							M												M	
CO6:							H													

 H	 M	 L
High Correlation	Medium Correlation	Low Correlation

Semester – I

19BIFC104: Accounting For Managers

Credits : 3
Hours: 60

Learning Objective:

- LO1: To acquaint the students with the various concepts, techniques of accounts methods
 LO2: To analyse the process of accounting data analysis and interpretation.
 LO3: To help the student take decision making in the areas of Management Accounting.

Course Outcomes

Upon completion of the course students will be able to

CO1:	Understand and get knowledge on accounting format with effectively and professionally.
CO2:	Acquire the knowledge and skills that related to financial and non-financial information to formulate business.
CO3:	Develop the global business, how to management accounting helps for decision making.
CO4:	Work individual as well as team member in financial aspects of business.
CO5:	Analyse and Implementation their responsibility and ethical financial information.
CO6:	Provide sustainable development of business using tools and technique in accounting.

Unit-1 Introduction To Management Accounting and Financial Accounting (14 h)

Introduction – Principles – Concept – Accounting conventions – Management accounting – Its origin – Role – Function – Growth – Cost accounting – Financial accounting – Difference between various accounting – Financial Accounting – Journal – Ledger – Trail Balance – Trading – Profit and Loss account – Balance sheet. (Final Accounting Problems with adjustments). Accounting Standards (IND-AS) – Generally Accepted Accounting Principles (GAAP).

Unit-2 Financial Statement Analysis, Ratio Analysis, Fund and Cash Flow Analysis (10 h)

Analysis and interpretation of financial statements – Analysis of Comparative Balance sheet – Common size statement (simple problems) – Ratio Analysis – Nature – Classification – Limitations – Interpretations of Ratios – Funds flow analysis – Concept – Merits and Demerits – Cash flow analysis – Concept – Merits and Demerits (simple problems).

Unit-3 Methods and Techniques Of Cost Accounting (10 h)

Concept of cost – Elements of cost – Cost Accounting – Objectives – Cost Sheet (Problems) – Classification of cost – Cost Unit and Cost Centre – Methods of Costing _ Techniques of Costing.

Unit-4 Marginal Costing, Budget and Budgetary Control (12 h)

Marginal Costing – Concept – Advantages and Disadvantages – Break even analysis – Cost volume profit analysis – Budget and Budgetary control – Objectives – Type of budgets – Preparation of Sales, Cash, flexible and master budgets (simple problems).

Unit-5 Standard Costing and Variance Analysis (14 h)

Standard Costing – Advantages of Standard Costing – Limitation of Standard Costing – Determination of Standard Costs – Revision of Standards – Standard Cost Card -Variance Analysis-Material Cost Variances – Sales Variances – Labour Variances (Simple Problems in Variances). **“Current Streams of Thought”**.

Text Books

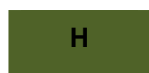
1. Gunasekaran, E., Accounting for Management, Lakshmi Publication, Chennai, 2012.
2. Khan. M.Y. and P.K. Jain, Management Accounting, Tata McGraw Hill Pub., 2017.

Supplementary Readings

1. Maheswari, S.N., Cost and Management Accounting, Sultan Chand & Sons.,Publisher New Delhi, 2013.
2. Pandikumar ,M.P, Management Accounting, Excel Books, New Delhi, 2010.
3. Narayanasamy.R, Financial Accounting- A Managerial Perspective, PHI learning Private Limited , Sixth Edition, 2017.
4. Gupta.R.L and Radhaswamy M, Advanced Accounts, Vol I, Sulthan Chand & Sons, New Delhi 2017.
5. Jain .S.P. and K.L.Narang, Advanced Accounts, Kalyani Publishers, Ludhiana 2018.

Outcome Mapping

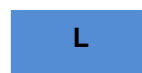
PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:													H							
CO2:																			H	
CO3:															M					
CO4:							M													
CO5:								M												
CO6:											H									



High Correlation



Medium Correlation



Low Correlation

Learning Objective

The learning objective of the course is

- LO1: To explain the fundamentals of computers, hardware, software and its evolution.
 LO2: To provide in-depth knowledge on software development process and its related functionalities.
 LO3: To enable data processing concepts and its applications.
 LO4: To impart knowledge on networking, its types and topologies.
 LO5: To introduce the strategic implementation of IT and its applications in organisations

Course Outcome

Upon completion of the course the students will be able to

- CO1: Understand the evolution and recent developments in hardware, software, management functions related packages and other accessories.
 CO2: Recognise, understand and involve in development of programs, system software and applications for various functions of business.
 CO3: Organize and work with files, folders and data storage for various functions in modern business
 CO4: Get familiar with working in MS-office and its application for various functions in modern business.
 CO5: Gain familiarity with the concepts and terminology used in the network development.
 CO6: Implement and maintain the operations of networking in information system of various functions for strategic advantage.

Unit–1 Computer Fundamentals (14 h)

Organization of computers – Generations of computers – Types of computers – Input /Output devices – Storage devices – Software: Systems software, Application software – Overview of Linux, Unix, Windows, Freewares – Programming Languages/ Assembly Languages – Compiler – Interpreter.

Unit–2 Software Development applications (10 h)

Software Development Process: File Design & Report Design – Data File Types/ Organization; Master, Transaction File. Application and uses of MS-Office: Word, Power Point, Excel, Access.

Unit–3 Data Processing Concepts (10 h)

Basics of Data Processing – Modes of Data Processing – Data Hierarchy – Data Processing Systems – Management of Data Processing System in Business Organization – Application portfolio Development – Program Development Cycle – Flow Chart.

Unit–4 Computer Networks (12 h)

DATA Communications: Networking Concepts, Classification – LAN, MAN, WAN – Wireless LAN – Internet, Intranet, Extranet – Virtual Private Networks (VPN) – Peer-to-Peer, Client Server – Networking topologies – Virus – Meaning – Types – Anti-virus – Benefits – Detection and Elimination.

Unit–5 Implementing and Managing IT (14 h)

IT strategic Alignment – Competitive Forces Model – Value Chain Model – Strategic Resources and Capabilities – IT Planning – Managing IS Department – Evaluating IT Investment: Benefits, Costs and Issues – IT Economics Strategies – Managerial Issues.

An Integrated Stepped Approach – Consulting Process – Proposal Development – Contract – Execution – Implementation – Planning – Closing and Collecting. **“Current Streams of Thought”**.

Text Books

1. Alexis Leon and Mathews Leon, Fundamentals of Information Technology, Vikas Publishing, New Delhi, 2014.
2. Alexis Leon and Mathews Leon, Introduction to Computers, Vikas Publishing, New Delhi, 2013.

Supplementary Readings

1. Peter Norton, Introduction to Computer, 7th Edition, Tata McGraw Hill, New Delhi, 2015.
2. Rajaram. V, Introduction to Information Technology, PHI, 2013.
3. K. Mohan Kumar. K and S. Rajkumar, Computer Applications in Business, Tata McGraw Hill, New Delhi, 2009.
4. RitendraGoel, D.N. Kakkar, Computer Applications in Management, New Age Publishing, New Delhi, 2013.
5. Sanjiva Shankar Dubey., Management and IT Consultancy, McGraw Hill, New Delhi, 2012.

Course Outcome

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:				H					M				L							
CO2:		M		H	M							H	M	M	M	M				M
CO3:			M	H				M			M	H							M	
CO4:				H									L		M					M
CO5:				H	M			M						M						M
CO6:	L			H		M		M			M	H		M		M	M	M	M	M

H	High Correlation	M	Medium Correlation	L	Low Correlation
----------	-------------------------	----------	---------------------------	----------	------------------------

Semester – I **19BIFC107: Project, Entrepreneurship And Small Business Management**

Credits : 3
Hours: 60

Learning Objectives

The objectives of this course is

- LO1: To impart knowledge in project management tools and techniques practiced in a project.
- LO2: To provide exposure in the methods adopted in identifying a new project and to know the difference between pre-feasibility and feasibility study.
- LO3: To understand the role of entrepreneur in the Indian context and to expose to the importance of small scale industry.

Course Outcomes

Upon completion of the course students will be able to

- CO1: Understand and get skill on Project management tools and Information system used in a project.
- CO2: Impart knowledge on Infrastructureproject and Project Identification methods that are practiced in Indian and Global scenario.
- CO3: Improve cognitive skills on project delays and to resolve conflict in a project.
- CO4: Understand the role of Entrepreneur and ethical practice in Indian and global scenario.
- CO5: Develop the leadership skills, communication skills and the ability to work with a project team.
- CO6: Impart knowledge on Training institute and Financial institution that assist the small scale industry in the sustainable development.

Unit-1 Project Planning (10 h)

Definition of project – Classifications of projects – Importance – Scope – Project Identification – Idea generation and Screening – Project selection and Planning – Project Formulation – Project life cycle – Project Organisation – Roles and Responsibilities of project manager – Managing project team.

Unit-2 Project Feasibility and Project Finance and Evaluation (14 h)

Pre-feasibility study – Market and Demand analysis – Feasibility Study: Technical – Commercial – Environmental – Socio economic – Managerial and Financial analysis – Detailed Project Report – Resource Survey – Selection of plant location – Project contracts – Insurance for projects – Project Implementation.

Estimating project time and cost – Cost of capital – Source of finance – Cost control – Project Scheduling and Monitoring – Project Information System and Documents – Project Report – Social Cost Benefit Analysis – Project Evaluation and Performance Review Techniques.

Unit-3 Introduction to Entrepreneur (12 h)

Definition – Concept – Classification and types of entrepreneurs – Entrepreneurial Traits – Need and Important – Roles and Responsibilities of Entrepreneurs in Indian business context – Entrepreneurial Motivation – Entrepreneurial Development Programme: Role and objectives of the programme – Contents – Institutions aiding Entrepreneurs – Central and State level Institutions.

Unit-4 Entrepreneurship Environment and Challenges (10 h)

Entrepreneurship environment: Social – Cultural – Political – Natural – Geographic – Technological – Economic Environment and its impact on Entrepreneurship – Factors affecting entrepreneurial growth – Globalization and its challenges – Steps to face global challenges – Strategies for the development of women entrepreneurs.

Unit-5 Small Business Management (14 h)

Small Enterprises – Definition – Classification – Characteristics – Ownership Structures – Steps involved in setting up a small business – Identifying and selecting a good Business opportunity – Market potential analysis – Marketing methods: Pricing and Distribution methods. Sickness in small Business: Concept – Magnitude – Causes and Consequences – Corrective Measures – Government Policy on Small Scale Enterprises – Growth Strategies in small industry: Expansion – Diversification – Joint Venture – Merger and Sub Contracting. **“Current Streams of Thought”**.

Text Books

1. Prasanna Chandra, Projects, Tata McGraw hill, New Delhi, 2007
2. Khanka.S.S, Entrepreneurial Development, S. Chand & company, New Delhi, 2008.

Supplementary Readings

1. Clifford F. Gray and ErikW.Larson, Project management, Tata McGraw hill, New Delhi,20007.
2. Nagarajan.K, Project Management, New Age International publishers, New Delhi, 2007.
3. Robert D Hisrich, Michael P.Petersand Dean A. Shepherd, Entrepreneurships, Tata McGraw hill, New Delhi,2007.
4. Vasant Desai, Dynamics of Entrepreneurial Development and Management, Himalayas publishing house, New Delhi, 2008.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:	H												M	M						
CO2:									H											
CO3:						L														
CO4:									M											

CO5:			M														
CO6:									H								L

H	High Correlation	M	Medium Correlation	L	Low Correlation
---	-------------------------	---	---------------------------	---	------------------------

Semester – I

19BIFC108: Research Methodology

Credits : 3
Hours: 60

Learning Objective of the course is

- LO1: To equip the students with the basic understanding of the research methodology
- LO2: To provide an insight into the application of modern analytical tools and techniques for the purpose of management decision making.
- LO3: To impart knowledge in data collection and research tools to efficiently complete their business research.

Course Outcomes

Upon completion of the course students will be able to

CO1:	Display competencies and knowledge on the Key Knowledge area of research and its methodologies.
CO2:	Acquire the skills to explore appropriate research problems and parameters.
CO3:	Evaluate research problems and various research designs,
CO4:	Formulate hypotheses and develop statistical models
CO5:	Acquire the skills to analyse various research problems, interpret the various statistical tests results and generate good research reports.
CO6:	Develop proficiency in using SPSS for Data analysis.

Unit–1 Introduction to Research and Research Methodology (14 h)

Research – Meaning – Types – Nature and scope of research – Problem formulation – Statement of research Objective – Value and cost of information – Importance of research in Management – Research process – Research design.

Unit–2 Data Collection (10 h)

Methods of data collection – Observational and Survey methods – Field work plan – Administration of surveys – Training for field investigators – Sampling methods – Sample size.

Unit–3 Research Tools (10 h)

Source of Data – Primary – Secondary data – Questionnaire Design; Attitude measurement techniques – Scaling Techniques.

Unit–4 Application of Statistics in Research (14 h)

Introduction to Statistics – Estimation of Population parameters – Point of Internal estimates of means and proportions – Correlation – Regression – Hypothesis testing – Chi-square test – T test – F test – Tabulation of data – Analysis of data – Advanced techniques – ANOVA – Discriminate Analysis – Factor analysis – Multidimensional Scaling – Cluster Analysis.

Unit–5 Report Preparation (12 h)

Research Applications – Types of Report – Report preparations – Format – Languages – Tables – Pictures & Graphs – Bibliography Comments. **“Current Streams of Thought”**.

Text Books

1. Kothari, C.R., Research Methodology, New Age International (P) Ltd, New Delhi, 2019.
2. Arora, P.N. & S. Arora, Statistics for Management, S. Chand & Company Ltd., New Delhi, 2007.

Supplementary Readings

1. Donald R. Cooper and Pamela S. Schindler, Tata McGraw Hill, 9th Edition, New Delhi.

2. Krisnasamy, O.R. and M. Ranganathan, Methodology of Research in Social Science, Himalaya Publishing House, Mumbai, 2005.
3. Panneerselvam, R., Research Methodology, Prentice Hall of India, New Delhi, 2008.
4. Mark N.K. Saunders Philip Lewis and Adrian Thornhill, Research Methods for Business Students, Pearson publishers 2015 •
5. Mark Easterby-Smith, Richard Thorpe, Paul R. Jackson, Lena J. Jaspersen -Management and Business Research, Sage publishers 6 th edition 2018

6. Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:	H												M							
CO2:		M												H						
CO3:																		H		
CO4:											M							H		
CO5:																			M	
CO6:								H						M						

7.

H	High Correlation	M	Medium Correlation	L	Low Correlation
----------	-------------------------	----------	---------------------------	----------	------------------------

Semester – I **19BIFC109: Comprehensive Viva-voce (Industrial Visits and Subjects)**

Credits : 2
Hours: 60

Learning Objective

The objective of this course is

- LO1: To educate the concept of finance and its concern with everything that takes place in the conduct of the business.
- LO2: To develop and acquaint the students with the various concepts, techniques, methods of planning and forecasting.
- LO3: To Explain various sources of finance, dividend policy and capital structure.

Course Outcome:

After completion of this course, the student should be able to

- CO1: Analyse the functions of finance manager who entails planning, organising, controlling, monitoring and evaluating the financial resources of an organisation to achieve its overall objectives.
- CO2: Describe the characteristics of various sources of long-term financing.
- CO3: Analyse the key issues related to working capital policy and various facets of inventory management
- CO4: Discuss the techniques of Capital budgeting and explore certain advanced issues in capital budgeting.
- CO5: Expound various views on relationship between capital structure and cost of capital.
- CO6: Explore the aspects of dividend decision and describe the determinants of appropriate dividend policy.

Unit-1 Introduction to Financial Management (14 h)

Finance function: Meaning – Definition – Scope of Finance function – Executive functions and Incidental functions –Goals of Financial Management –Profit maximisation and Wealth maximisation – Time Value of Money – Future value and Present Value.

Unit-2 Long - Term Financing (12 h)

Sources of long term financing - Nature of long term financing - Common stock – Preferred stock – shares – types and benefits – types of preferences shares – bonds, yield to maturity (simple problems) – debentures - ploughing profit. Debt financing: Secured and Unsecured debts - Under writing of shares –Rights issue: Meaning –Procedure –Pricing –Underwriting of rights - - Dilution of market price rights - –Market price of shares.

Unit-3 Working Capital Management (10 h)

Meaning of working capital - Net working capital – Financing mix approaches - Sources of working capital financing - Management of cash and marketable security: Importance of cash and liquidity - Cash balance deciding factors- Determination of cash cycle –Receivable management - Objectives -Formulation of Credit and collection policies - Inventory management - Objectives of Inventory – Determination of optimum level of inventory - Types of Inventory.

Unit-4 Capital Structure and Capital Budgeting (10 h)

Capital Structure - –Theories of Capital Structure – Assumptions -Features of an appropriate capital structure - Determinants of the capital structure.

Capital Budgeting – Methods of ranking Investment proposals – Payback method – Average Rate of Return method – Discounted Cash Flow method – IRR method – NPV method – Excess present value method (simple problems).

Unit-5 Cost of Capital and Dividend Policy Decision (14 h)

Cost of Capital – Significance - –Determining component of Cost of Capital –Weighted Average Cost of Capital (Simple Problems) – Flotation Costs.

Dividend policy decision: Dividend and Retained earnings - M.M. Model - Walters Model - Dividend practices - Factors affecting dividend policy - Dividend payout ratio – Stock dividend and Stock splits - Issue of bonus shares and its procedure. “**Current Streams of Thought**”.

Text Books

1. Khan, M.Y. and P.K. Jain, *Financial Management–Text and Problems*, 4th ed., Tata McGraw Hill Publishing Co., New Delhi, 2017.
2. Srivastava. R.M., *Financial Management*, Himalaya Publication House, Mumbai, 2016.

Supplementary Readings

1. Eugene F. Brigham & Michael C. Ehrhardt, *Financial Management: Theory and Practice*, Cengage Publication, 2015.
2. James C Van Horne, *Fundamentals of Financial Management*, 13th Edition, PHI Learning Publisher, New Delhi, 2015.
3. Kuchhal, S.C., *Financial Management*, Allahabad, Chaitanya Publishing House, 2014.
4. Pandey, I.M., *Financial Management*, (10th Edition), Vikas Publishing House, 2014, New Delhi.
5. Prasanna Chandra, *Financial Management: Theory and Practice*, Tata McGraw Hill, 2012.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:	H											M	H							
CO2:	H					M						M	H					H	M	
CO3:	H								M				H					H		
CO4:	H	M				M							H					H	M	
CO5:	H					M							H					H	M	
CO6:	H				M	M							H		H			H	M	

H	High Correlation	M	Medium Correlation	L	Low Correlation
---	-------------------------	---	---------------------------	---	------------------------

Semester – II

19BIFC202: Marketing Management

Credits : 2
Hours: 60

Learning Objectives

The objective of this course is

- LO1: To familiarize with the various concepts in marketing
- LO2: To acclimatize the students about the marketing environment
- LO3: To understand consumer behaviour
- LO4: To analyse the factors influencing consumer decision
- LO5: To develop the ability to design best marketing strategy

Course Outcome

After completion of the course students will be able to

- CO1: Familiar into marketing concept and environment.
- CO2: Built the Critical approach and analyze the market and segmenting markets.
- CO3: Well communicate the authorities about the buyer's opinion towards promotional as well as marketing mix strategies.
- CO4: Analyze the innovative market information and derive insights.
- CO5: Construct the suitable marketing strategies after evaluating the current trend about new products and copyrights.
- CO6: Teach the ethics of marketing to the corporate world and also can explore the purchase decision process.

Unit-1 Marketing and its Environment (14 h)

Definition – Role of marketing – Marketing Concepts and Tasks – Customer Value and Satisfaction – Production concept – Product concept – Selling concept – Marketing concept – Societal marketing, Relationship Marketing concept; Tasks of Marketing; Marketing Environment – Macro and Micro Environment – Environmental Scanning - Marketing strategies – Market Leader Strategies – Market follower Strategies – Market Challenger Strategies and Market Niche Strategies.

Unit-2 Market Analysis and Segmentation (12 h)

Market Analysis – Types of Markets – Marketing mix elements – Market Portfolio Planning – Demand forecasting methods – Survey – Buyer’s opinion – Composite Sales force opinion – Experts opinion – Market test method.

Market Segmentation – Bases of Segmenting Consumer Market and Industrial Market – Target Marketing – Product differentiation – Market Positioning Strategy – Marketing Planning and Control.

Unit-3 Product and Pricing Strategies (10 h)

Product – Classification of consumer goods and Industrial goods – Product lines – Product Life Cycle – New Product Development – Launching New Product – Product Innovation; Brand – Types – Packaging – Labelling – Trade Marks – Copyrights – Patents. Pricing Strategy – Methods of Setting Price – Discounts and Allowance – Price off.

Unit-4 Physical Distribution and Promotion (14 h)

Marketing Channels – Direct Marketing – Industrial Marketing – Network Marketing – e-marketing – B2B – B2C – Distribution Network – Channel Management – Retailing – Wholesaling – Promotions– Advertising – Public Relations – Publicity – Sales Promotion Methods – Sales force Management – Qualities of Sales Manager – Performance Evaluation of Marketing Programmes; Marketing Research – Process – MIS; Ethics in Marketing – Consumerism – Environmentalism – Global Marketing – Services Marketing – Rural Marketing.

Unit-5 Consumer Behaviour and CRM (10 h)

Consumer Behaviour – Factors influencing Consumer Behaviour – Demographics – Psychographics – Behavioural – Psychological influence – Purchase decision process – Strategies – Family decision making – Stages in buying process – Dissonance behaviour – Customer Relationship Management. **“Current Streams of Thought”**.

Text Books

1. Gupta, G.B. and N. Rajan Nair., Marketing Management, Sultan Chand & Sons, New Delhi, 2016.
2. Philip Kotler, and Kavin Lane Keller, Framework for Marketing Management, 6th Edition, Pearson Education, New Delhi, 2016.

Supplementary Readings

1. Karen Webb, Consumer Behaviour, 2nd Edition, Tata McGraw Hill, New Delhi, 2011.
2. Philip Kotler, Kevin keller, Abraham Koshy and Jha, Marketing Management, 14th Edition, Pearson Education, New Delhi, 2012.
3. Ramasamy Namakumari, Marketing Management, Asian Perspective, McMillan, New Delhi, 2016.
4. Russel S. Winer, Marketing Management, Tata McGraw Hill, New Delhi, 2012.
5. Warren J. Keegan, Global Marketing Management, 8th Edition, Pearson Education, New Delhi, 2014.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:				M												L				
CO2:	L												M			L				
CO3:			L																H	

CO4:																			L	
CO5:																				L
CO6:												M								

H	High Correlation	M	Medium Correlation	L	Low Correlation
----------	-------------------------	----------	---------------------------	----------	------------------------

**Semester – II 19BIFC203: Human Resource Management Credits : 3
Hours: 60**

Learning Objectives

The objective of the course is

- LO1: To introduce the basic concepts to understand the importance of Human Resource Management
- LO2: To provide understanding of the various functions of Human Resource Management
- LO3: To Acquaint the application of management functions and principles towards acquisition, development, retention and compensation of employees

Course Outcomes

Upon completion of the course students will be able to

- CO1: Apply and contribute to the development, implementation and evaluation of Planning of Human Resources, Recruitment, Selection, and Retention.
- CO2: Create the design and evaluation of Training and Development Programmes.
- CO3: Develop and Facilitate Performance management and Compensation management by upholding ethical standards for sustainable development.
- CO4: Critically evaluate and communicate Health, Welfare and safety aspects of employees and organization.
- CO5: Appreciate Human Resource aspects of an organization for better decision making.
- CO6: Conduct research, prepare report and recommend changes in Human Resource Practices.

Unit-1 Introduction (14 h)

Human Resource Management – Importance – Challenges – Line and Staff aspect – HR management activities – Role of Personnel manager – Images and qualities of HR manager – Integration of employee/management interests – Environment of Human resource Management – External Forces, Internal Forces – HR Metrics.

Unit-2 Job Analysis, Job Design and Human Resource Planning (10 h)

Job Analysis – Content, Steps in job analysis, methods of collecting job data, potential problems with job analysis – Factors affecting job design – Job Design Approaches – Job specification – Human resource planning – Importance – Future Personnel needs, creating talented Personnel, foundations for personnel functions – Factors affecting HRP – HR supply / demand forecast – Recruitment – Factors affecting recruitment – Recruitment policy – Internal / External sources of recruitment – Methods of recruitment – Selection procedure – Orientation Program – Recruitment Metrics.

Unit-3 Training and Performance Appraisal (12 h)

Distinction between training, development and education – Inputs in T&D – Skills, Development, Ethics, Attitudinal Changes, Decision making Skills – Gaps in training – Principles of Learning – Learning Curve – Training process – Training techniques/methods – Evaluation of on the job and off the job training methods – Management Development – Training and Development Metrics – Factors of Appraisal – Traditional methods – Modern methods – MBO process – Appraisal techniques failure – Ethics of appraisal – HRIS – HR Scorecard – Career planning and development – Succession planning – Organizational components and organizational career opportunities.

Unit-4 Promotion, Job Evaluation and Compensation (10 h)

Promotion – Promotion policy – Types of Promotion – Seniority – Merit – Ability – Transfers – Reasons, Principles and types – Separation – Lay off – Resignation – Dismissal – Retrenchment - Voluntary retirement scheme – Retention Metrics, Retention Determinants, Attrition – Job evaluation – Procedure, Advantages & Limitations – Job evaluation methods –Components of Remuneration – Wages and salary, incentives, fringe benefits – Factors affecting employee remuneration – Minimum wage, fair wage and living wage – Executive remuneration.

Unit-5 Quality of work life and Participative Management (14 h)

Scope and ways of Participation – Staff council, Joint council, Collective bargaining, Job enlargement/enrichment, Suggestion schemes and Quality circle – Total quality management – Structure of Participative management – Nature and benefits of participation – Managing diversity – Gender equality in employment – Quality of work life – Role of supervisor in QWL – Safety – Types of accidents – Safety programs – Work place health issues – Work place violence – Outsourcing HR activities – Productivity & Performance Metrics. **“Current Streams of Thought”**.

Text Books

1. Aswathappa, K., Human Resource Management, Text & Cases, McGraw Hill Education, 2017.
2. Durai., Human Resource Management, Pearson Education India, Second edition, 1 March 2016.

Supplementary Readings

1. Dessler Gary, Fundamentals of Human Resource Management , Pearson Education, 2017.
2. Subba Rao, P., Essentials of HRM and Industrial Relation, Himalaya Publishing House Pvt. Ltd.; 5/e edition (2013)
3. Biswajeet Pattanayak, Human Resource Management, PHI Learning, 18 April 2018.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:	M																			
CO2:		M									M	H								
CO3:								H			L								M	
CO4:	L		H								L									
CO5:	L	L									H									H
CO6:		L		M					L	M	L							M		



H High Correlation



M Medium Correlation



L Low Correlation

Learning Objectives

The objective of this course is,

- LO1: To know about production functions and the different ergonomics considerations in designing the production system.
- LO2: To analyze the factors influencing plant location and principles of plant out existing in the industry.
- LO3: To help the students to understand about production planning and control and the role of Gantt charts in production scheduling.
- LO4: To explain the essentials of materials management and the role of inventory system in running a business.

Course Outcomes

Upon completion of the course students will be able to,

- CO1: Demonstrate the core features of production function at the operational and strategic levels, its correlation with employees, process, productivity, quality and information technology besides its contribution to the competitiveness of firms.
- CO2: Appraise the production functions and their interaction with other business functions such as finance, marketing, human resource, supply chain and innovation.
- CO3: Evaluate the factors that may influence the location of a plant in national and foreign along with the ability to identify operational methodologies to assess and improve the organizational overall performance.
- CO4: Assess the principles underlying on Production Planning and Control and pertain various qualitative techniques of maintenance function for an extensive sustainability and development of the organizations.
- CO5: Apply materials forecasting and planning techniques to carry out the work independently or team and develop basic materials requirement schedules in order to take aggregate decisions.
- CO6: Develop an integrated framework for critical thinking entailed for today's managers towards purchasing policies, procedures, legal aspects, and tax considerations which analyze the enterprise as a whole with a specific focus on the organizations wealth creation processes.

Unit–1 Production Function (14 h)

Introduction – Production functions – Design of production system – Types of production – Types of process – Productivity – Ergonomics.

Plant Location – Factors influencing plant location – Multi Plant location – Foreign Location – Relocation – Plant location trends.

Unit–2 Plant Layout and Maintenance (10 h)

Plant Layout – Types of layouts – Process layout – Product layout – Layout of service facilities – Office layout – Use of service facilities – Use of drawings, templates and models in layout physical facilities.

Maintenance – Objective of maintenance – Elements of maintenance – Types of maintenance – Breakdown time – Distribution time – Preventive maintenance Vs Breakdown maintenance – Optimum crew size – Maintenance records.

Unit–3 Production Planning and Control (10 h)

Production Planning and Control – Routing – scheduling – Despatching – Expediting – GANTT charts – Work study and Motion study and Method study analysis – Use of Computers in PPC – Design and Implementation of PPC System.

Unit–4 Materials Management and Materials Management Information System (12 h)

Materials Management – Objective of Materials management – Materials forecasting and planning – Inventory control – Fixed order size, P&Q Inventory System – Deterministic probabilistic models, Static inventory models – Spare parts management – Materials requirement planning – Aggregate

inventory management – Implementation aspects of inventory systems – Materials accounting and budgeting evaluation of materials management performance. Information systems and computers in materials management.

Unit-5 Store and Purchase Function (14 h)

Standardization, simplification, codification, stores layout, storage systems and equipment, stores preservation, stores procedures and Automation of warehouses – Materials handling equipments – Stores Account – Price – Cost analysis and Negotiation forward buying – Speculation and Commodity markets – Capital equipment buying, imports and customs – Clearance – Purchasing research.

Purchasing function – Purchasing policies and procedures, legal aspects of purchasing, tax considerations in purchasing, selections and sources of supply and make or buy decisions – Vendor evaluation and rating – vendor development. **“Current Streams of Thought”**.

Text Books

1. Sarangi S.K., Production Management and Materials Management: Text & Cases, Asian Books Private Limited Publication, New Delhi, 2011
2. Gopalakrishnan Sundaresan, Materials Management, PHI Learning, New Delhi, 2003.

Supplementary Readings

1. Tony Arnold J. R., Stephen N. Chapman, and Lloyd M. Clive, Introduction to Materials Management, sixth edition, Pearson Prentice Hall, 2008.
2. Dutta, A.K., Integrated Materials Management, New Delhi, PHI Learning, 2000.
3. Nair, N.K., Purchasing and Materials Management, Vikas Publishing House, New Delhi, 2005.
4. Paneer Selvam, R., Production and Operations Management, PHI Learning, 2010.
5. Shridhara Bhat, K., Production and Materials Management, Himalaya Publishing house, Mumbai, 2009.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:													L							
CO2:														M						
CO3:								M							M					
CO4:																	L			
CO5:							L												M	
CO6:	H																			L



High Correlation



Medium Correlation



Low Correlation

Learning Objective

The learning objective of the course is

- LO1: To provide a real-world understanding of information systems and Decision Support System application in business.
- LO2: To impart a firm foundation and background needed in the field of information systems.
- LO3: To explain the Information System technologies currently available in business world.
- LO4: To provide the right balance of conceptual background, technical information and real-world applications.
- LO5: To introduce the infrastructure required and security issues for the effective use of information system

Course Outcome

Upon completion of the course the students will be able to

- CO1: Categorize the components of information systems and differentiate how they interact among them.
- CO2: Understand MIS and DSS within a context of an integrated collection of subsystems within an organisation.
- CO3: Classify the conceptual foundations, structure and technology of information systems.
- CO4: Formulate and develop an information-based DSS and MIS, supporting improved decision making and problem solving by improved individual insight.
- CO5: Determine and develop MIS and DSS in support of management, users and functional areas for the organisation.
- CO6: Develop planning and techniques involved in the implementation of an information system, specifically MIS & DSS

Unit–1 Basic MIS and DSS concepts (14 h)

Management Information System: Definition; Concept; Frame Work. Elements of MIS: MIS Structure; Functional Components; Information Component; Human Component; System Component. Decision Support Systems: Definition; Types of problems-structured-semi-structured and unstructured problems; Sub Systems of DSS: Dialogue Management; Model Management and Data Management Sub systems.

Unit–2 Design and development of MIS and DSS (10 h)

Designing Information System: System Development Life cycle (SDLC) approach: Requirement Analysis; Information gathering; Design and developing the IS; Implementation of IS in organizational settings. Rapid application Development: Application Systems; ERP applications. DSS development process-DSS evolution-GDSS application and design. Mathematical models in DSS.

Unit–3 Infrastructure for MIS and DSS (10 h)

Hardware requirement for MIS and DSS: Communication Processors and Channels; Network Infrastructure for MIS and DSS- Different types of Computer networks- 4GL Technologies - Expert Systems: Artificial Intelligence; GIS applications in Business- Cloud Computing.

Unit–4 MIS in Functional Components and System Security (14 h)

Information systems applications on Functional domains of Business: Marketing Information system-HR Information System-Financial Information System-Accounting Information System-Production Information System -Information System applications in retailing- Information System applications in Supply Chain Management. Document Management Systems: Record Keeping systems - Information system Security and Control – Different layers of protection for IS application - Privacy and freedom of information system end users-Information privacy norms-Fair use doctrine.

Unit–5 IT infrastructure Management (12 h)

Organising MIS function in the enterprise- structure of MIS team in the organization-Different strategies of IT infrastructure management; In-house development of MIS-Outsourcing MIS

function; Hardware and Software updating-End user training and development-End user training need identification. **“Current Streams of Thought”**.

Text Books

1. DP Goyal, Management Information Systems: Managerial Perspectives, 4th edition, Vikas Publishing House, New Delhi, 2014
2. Janakiraman and Sarukeshi, Decision Support Systems, 12th Edition, PHI Learning Pvt. Ltd., New Delhi, 2011.




Supplementary Readings

1. Kenneth J. Sousa, Effy Oz., Management Information Systems, Cengage Learning India Pvt. Ltd., New Delhi, 2014.
2. Efrem G. Mallach., Decision Support Systems and Data Warehouse Systems, 10th Edition, Tata McGraw-Hill Ltd, New Delhi 2011
3. Kennet C. Laundon, and Jane P. Laundon., Management Information Systems-Managing Digital Firms, 12th Edition, Prentice Hall of India., New Delhi, 2011.
4. Rajesh Ray., Enterprise Resource Planning Text & Cases, Sultan Chand & Sons, New Delhi, 2011.
5. Vicki L. Sauter, Decision Support Systems for Business Intelligence, Wiley, 2nd Edition, 2011.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes						
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO1:				H												M			
CO2:	M												M			M			
CO3:			H														H		
CO4:																		M	
CO5:																			M
CO6:														H					

6.

 H	 M	 L
High Correlation	Medium Correlation	Low Correlation

Semester – II

19BIFE207: Infrastructure Planning

**Credits : 3
Hours: 60**

Learning Objectives

The Objective of the course is

- LO1: To familiarize the basics concepts of infrastructure and planning and document the different phases in the life cycle of an infrastructure project.
- LO2: To explain the concepts of financial, economic, social and environmental impact and describe and explain the main features of project evaluation..
- LO3: To describe and explain the basic features of risk and quality management of a project, and the extent that these management areas need to be implemented.

Course Outcomes

Upon completing of the course, student will be able to:

- CO1: Critically evaluate the different phases in the life cycle of an infrastructure project and role of various management functions in each phase.
- CO2: Analyse the basic principles of project appraisal and evaluation, and determining feasibility of projects
- CO3: Evaluate the basic features of risk and quality management of a project, and the extent

that these management areas need to be implemented.

CO4: Develop methodologies for economic analysis and ICT usage for various activities involved in infrastructure planning

CO5: Demonstrate the concepts of financial, economic, social and environmental impact and risk associated.

CO6: Understand and evaluate the environmental impact in an infrastructure project.

Unit-1 Introduction (12 h)

Definitions of infrastructure; Typical infrastructure planning steps; Planning and appraisal of major infrastructure projects; Screening of project ideas; Life cycle analysis; Multi-criteria analysis for comparison of infrastructure alternatives.

Unit-2 Procurement Strategies (10 h)

Procurement strategies; Scheduling and management of planning activities; Economic Analysis – Concepts and Applications.

Unit-3 Methodologies (14 h)

Principles of methodologies for economic analysis of public works, Social welfare function, Indifference curves and tradeoffs, Demand curves and price elasticity's; Benefit-cost ratio and internal rate of return; Shadow pricing; Accounting for risk and uncertainty.

Unit-4 Project Risk and Estimation of Cash Flows (14 h)

Project cash flows: Conventional and Nonconventional, Project Risk: Elements of Risk – Risk adjusted discounted rate – Estimation of Project Cash flows.

Unit-5 Perspectives of Infrastructure Planning (10 h)

Political and social perspectives of infrastructure planning; Case studies. “Current Streams of Thought”.

Text Books

1. A. S. Goodman and M. Hastak, Infrastructure planning, engineering, and economics, second edition, McGraw-Hill, New York, 2015.
2. Vicki Elmer, Infrastructure planning and finance: A smart and sustainable guide, 1st edition, Routledge, 2013.

Supplementary Readings

1. P. Chandra, Projects: Planning, analysis, selection, financing, implementation, and review, Tata McGraw-Hill, New Delhi, 2009.
2. J. D. Finnerty, Project financing - Asset-based financial engineering, Wiley publications; 2nd Edition, New York, 2007.
3. T. J. Webster, Managerial economics: Theory and practices, Elsevier, New Delhi, 2003.
4. J. Parkin and D. Sharma, Infrastructure planning, Thomas Telford, London, 1999.

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1	√						√		√				√							
CO2		√			√						√				√					
CO3	√					√			√			√	√							
CO4	√			√														√	√	
CO5	√	√			√			√			√				√	√				√
CO6							√				√					√				

High Correlation	Moderate Correlation	Low Correlation	

Learning Objectives

The Objective of the course is

- LO1: To teach the concepts and strategies used in infrastructural sectors and provide inputs on various infrastructure sectors in India.
- LO2: To explain the procurement process and its relative functions.
- LO3: To explain the role of privatizations and various models and strategies, strategic decisions and challenges in implementation.

Course Outcomes

Upon completing of the course, student will be able to:

- CO1: Critically review various infrastructure sectors and debate their strengths and weaknesses.
- CO2: Investigate and analyse different frameworks used in infrastructure sectors and the variables impacting each sector.
- CO3: Demonstrate the systematic process to select and screen a project and design strategies for successful implementation of projects.
- CO4: Appreciate the organization setup of infrastructure organization, its participants and ICT usage.
- CO5: Evaluate the concept of privatization and challenges in implementing the projects.
- CO6: Develop strategies for successful implementation of infrastructure projects

Unit-1 Introduction (10 h)

Introduction to infrastructure- Definition and types – An overview of the Power sector- Water supply and Sanitation sector- Road, rail, air and port transportation sectors- telecommunications sector- urban infrastructure- rural infrastructure in India. Special economic zones - Introduction.

Unit-2 Organizations and Players (11 h)

Organizations and players in the field of infrastructure. An overview of infrastructure project finance – procurement process, concession- design and award, financial risk analysis, management and mitigation. Credit rating of infrastructure projects, credit allocation framework for infrastructure projects.

Unit-3 Infrastructure Privatization (12 h)

Private involvement in infrastructure: Infrastructure privatization- benefits of infrastructure privatization- problems with infrastructure privatization-challenges in privatization of water supply- challenges in privatization of power privatization of infrastructure in India- Privatization of road transportation infrastructure in India.

Unit-4 Challenges in Implementation (13 h)

Challenges to successful infrastructure planning and implementation: Mapping and facing the landscape of risks in infrastructure projects- Economic and Demand risks- Political risks- Socio-Environmental risks- Cultural risks in international infrastructure projects- Legal and contractual issues in infrastructure- Challenges in construction and maintenance of infrastructure.

Unit-5 Infrastructure Strategies (14 h)

Strategies for successful infrastructure project implementation: risk management framework for infrastructure projects- shaping the planning phase of infrastructure projects to mitigate risks- Designing sustainable contracts- Introduction to fair process and negotiation- Negotiation with multiple stakeholders on infrastructure projects- Sustainable development of infrastructure- Information technology and systems for successful infrastructure management- Innovative design and maintenance of infrastructure facilities- infrastructure modelling and life cycle analysis techniques. “**Current Streams of Thought**”.

Text Books

1. Hariyappa, “Strategic Planning”, Book Tango Publication, 2015.
2. John M. Bryson, Strategic planning for public and nonprofit organizations: A guide to strengthening & sustaining organizational achievements, 5th edition, 2014.

Supplementary Readings

1. Richard Lambeck, John Eschemuller, "Urban Construction Project Management", McGraw Hill Series, 2009
2. Antony Walker, "Project Management in Construction", Willy Blacwell, 5th edition, 2007
3. David I. Cleland and Roland Gareis, "Global Project Management Handbook: Planning, Organization and Controlling International Projects", 2nd edition, McGraw Hill Series, 2006
4. Sidney Levy, "Project Management in Construction", McGraw Hill Series, 5th edition, 2006
5. VISION – TAMILNADU 2023 - Strategic plan for Infrastructure Development in Tamilnadu

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1	√			√	√				√				√	√						
CO2	√				√	√							√	√		√	√			
CO3	√	√					√	√	√		√				√			√	√	√
CO4				√		√	√					√						√	√	
CO5	√								√			√		√	√					
CO6											√					√				√

High Correlation		Moderate Correlation	Low Correlation

Semester – II

19BIFC209: Exposure to Small Medium Enterprises – Project Work

Credits : 2
Hours: 40

Course Objective

Students should undergo a 40 hours of observational study to learn from small and medium units and establishments. They should get versatile exposure in all specialization areas of the business. They can make use of second semester evening hours and weekends to undergo the study. They are expected to submit an observational report of their study for evaluation.

MBA SME project evaluation will be done for 100 marks which includes Dissertation (75 marks) and Viva voce (25 marks) and the minimum requirement for passing the project is 50 marks. A periodical review will be carried out to assess the originality of the project.

Guidelines

- The duration of the study is 40 hours.
- The students have to select a small/ medium/tiny enterprise of their own.
- Students have to visit the enterprise during the evening hours or on leave days to complete the project.
- All functional areas of the business have to be studied and the same have to be reported.
- Students have to submit the report about the firm they are involved in.
- Students should get the attendance from the firm and attach the same in the report.
- Students are allotted a guide in the department.
- Frequent discussions have to be made with the guide for the completion of the project.

Learning Objectives

The Objective of this course is

LO1: To provide an in–depth understanding of the Concept of OR

LO2: To enable the course participants to understand the various Techniques of OR

LO3: To provide an in-depth understanding of the OR role in managerial Decision making.

Course Outcomes

Upon completion of the course, the student will

CO1: Critically think about the priorities that are involved in the daily activities of a project.

CO2: Cultivate and Enhance the knowledge about Build the best fit route of transportation for carrying schedule of activities.

CO3: Have the ability to work and Graphically locate the optimum peak point in completing the project.

CO4: Understand the application of Queuing Theory

CO5: Analyze and apply the research techniques in quantitative and qualitative aspects

CO6: Develop competencies in Maximize the productivity with help of least cost techniques

Unit–1 Introduction (14 h)

Evolution of Operations Research – Models – Formulation of Models – Using models for problem solving – Techniques of Operations Research – Limitations of Operations Research.

Unit–2 Linear Programming (10 h)

Requirements of L.P. Applications – Graphical methods and Simplex method of solving optimization problems – Duality – Technical issues in Simplex method.

Special Purpose Algorithms

Transportation model – Balanced and Unbalanced problems – North–West Corner rule – Least Cost Method – Vogels Approximation method – MODI method – Assignment model – Hungarian model – Travelling Salesman Problem.

Unit–3 Inventory Models (14 h)

Inventory costs – Cost of average inventory – Optimum Number of orders per year – Optimum days supply per order – Optimum rupee value per order – Assumptions – Applications of EOQ in Production process – Reorder point – Lead Time – Safety Stock.

Waiting Line Models – Definitions of waiting lines – Single channel Queue models (Poisson Distributed arrivals and Exponentially Distributed Service Time) – Multiple channel Queue models (Poisson Distributed Arrivals and exponentially distributed Service Times) – Simulation of Queuing System.

Unit–4 Game Theory (10 h)

Two person Zero sum Games – Pure Strategy – Mixed Strategy – Dominance – Mix N Games – Graphical solution.

Network Models

PERT – CPM – PERT cost – Resource allocation – Float and slack – Other network models.

Unit–5 Replacement Models (12 h)

Capital equipment replacement – Replacement of terms that fail completely – Individual Vs Group replacement.

Sequencing

Problems with 'n' jobs and 2 machines problems with 'n' jobs and 3 machines. “**Current Streams of Thought**”.

Text Books

1. S.R. Yadav, A.K. Malik, "Operations Research" Oxford University Press; First edition, 2014
2. Srinivasan, G. Operations Research : Principles And Applications, PHI, 2017

Supplementary Readings

1. Kapoor, V.K., Operations Research, Sultan Chand & Sons, New Delhi, 2011.
2. Panneerselvam, Operations Research, Prentice Hall of India, New Delhi, 2003.

- Richard I. Levin and Charles A. Krikpatrick, Quantitative Approaches to Management, 6th Edition, McGraw Hill Kogakuha Ltd., Tokyo, 1998.
- Sharma, J.K., Operation Research: Theory & Application, Macmillan India Ltd., New Delhi, 2001.
- Taha, Operations Research – An Introduction, Prentice Hall of India, New Delhi, 2003.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:	H																	H		
CO2:					M								H							
CO3:							H												H	
CO4:														H						
CO5:																M				
CO6:								M												M



H
High
Correlation



M
Medium
Correlation



L
Low
Correlation

Semester – III **19BIFC302: Rural Infrastructure Planning & Management**

Credits : 3
Hours: 60

Learning Objectives

The Objective of the course is

- LO1: To give an in-depth understanding on rural area and explain an insight in rural infrastructure and its importance.
- LO2: To offer the frame work for planning and analysing the infrastructure for agricultural and allied activities.
- LO3: To provide insight into various infrastructural development opportunities in rural areas and to introduce about the opportunities available in rural infrastructure development.

Course Outcomes

Upon completing of the course, student will be able to:

- CO1: Realise the need and importance of rural infrastructure.
- CO2: Demonstrate the infrastructure required for agriculture and other rural allied sectors.
- CO3: Relate the development of rural infrastructure development to national development.
- CO4: Understand opportunities available in rural infrastructure development.
- CO5: Develop projects relating to rural infrastructure development.
- CO6: Develop strategies, procedures and policies related to infrastructure for the uplift of rural community.

Unit-1 Introduction (08 h)

Nature, scope, need and importance of infrastructure planning for rural area. Concept, approaches, issues to provide infrastructure for rural settlement.

Unit-2 Infrastructure for Agriculture (12 h)

Infrastructure inputs for agriculture; Importance, features, problems of agriculture; Classification of land, Change in land utilization pattern, Farm mechanization, Pesticides, Fertilizers.

Unit-3 Infrastructure for Allied activities (14 h)

Public distribution system – Marketing system – Infrastructure for processing – grading – packing. Irrigation means, their relative importance & network systems – Infrastructure for Allied

activities – Forestry – Animal husbandry – Poultry – Fisheries – Piggeries – Sericulture – Beekeeping. Infrastructure for water logging and soil erosion.

Unit-4 Infrastructural Development (13 h)

Infrastructure to provide energy – Fuel and electricity network for developing rural areas. Raw materials distribution centres for handicrafts and rural industries. Tourism potential and heritage in rural places.

Unit-5 Infrastructure for Different Sectors (13 h)

Education – Health – Water Supply – Sewage – Recreational points of social interaction – Provision for banks – Cooperatives – Policies & Programmes. **“Current Streams of Thought”**.

Text Books

1. Greg Halseth, Sean Markey, Laura Ryser, “Service Profession and Rural Sustainability Infrastructure and Innovation”, Routledge Publication, newyork, 2019.
2. Lekhi, R. K. and Joginder Singh, Agriculture Economics – An Indian Perspective, 11th edition, Kalyani Publishers, New Delhi, 2016.

Supplementary Readings

1. Gaurav Datt & Ashwani Mahajan, “Datt & sundharam., Indian Economy”, 70th Revised Edition, S. Chand, New Delhi, 2016.
2. Pingali Venugopal, Ram Kaundinya, “Agri Input marketing in India’, Sage Publications, New Delhi, 2014.
3. Bhargaw, G., Development of India’s Urban, Rural and Regional Planning in 21st Century Policy Perspective, Gyan Publishing House, New Delhi, 2001.
4. Jain, Gopal Lal, (2001), Rural Development, Knowledge Publications, New Delhi.
5. Bhatia, B.M., (1988), Indian Agriculture: A Policy Perspective. Sage Publications, New Delhi.

OUTCOME MAPPING

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1		✓																		
CO2	✓				✓	✓					✓		✓		✓	✓		✓		
CO3		✓	✓				✓						✓						✓	✓
CO4	✓				✓						✓	✓		✓		✓	✓			
CO5				✓	✓			✓	✓		✓	✓	✓						✓	✓
CO6											✓	✓			✓					✓

High Correlation	Moderate Correlation	Low Correlation

Semester – III

19BIFC303: Project Legislations

Credits : 3

Hours: 60

Learning Objectives

The Objective of this course is

- LO1: To explain about the jurisdiction and constitutional law related to project.
- LO2: To explain the role of private participation and PPP in Indian scenario and to impart knowledge about the infrastructure, policies, reforms and laws in various sectors.
- LO3: To learn the legal context about coastal zone, forest, land acquisition and environmental impact and to acclimatize the basic laws affecting operations of a business enterprise.

Course Outcomes

Upon completing of the course, student will be able to:

- CO1: Understand the basics of constitution, nature of contracts, including rights and duties of owners and non-owners.
- CO2: Critically evaluate about the infrastructure policies, reforms and laws in various sectors.
- CO3: Appreciate the negotiable instruments, partnership, consumer protection and cyber

laws.

CO4: Demonstrate the nature of corporate secretarial practices followed in the companies.

CO5: Understand the mechanics of governance, jurisdiction, its structure and functions

CO6: Understand and practice the policies, laws and reforms related to various sector

Unit-1 Introduction (10 h)

Constitutional law - Allocation of jurisdiction over different infrastructure sectors between the Centre and State - Law making powers Administrative Law

Role of Centre and State in policy formulation – Central funding of infrastructure projects – central oversight and interference; ESI – Consent to establish – Consent to operate

Unit-2 Private Participation (12 h)

Investment requirements – non ideological factors leading to commercialisation and privatisation of infrastructure - from socialism to market driven economy - legal framework for private sector participation – modes of Public Private Partnership (PPP) - dispute settlement clauses in concession agreements.

Unit-3 General legal context (10 h)

General Framework on environmental regulation and guidelines- Coastal Zone Regulation - Forest (Conservation) Act -Environmental Impact Assessment - Role of judiciary - Land Acquisition – Rehabilitation and resettlement

Unit-4 Mechanism of Governance (14 h)

Theories of regulation - genesis of Independent regulation - evolution of regulation in different jurisdictions - Design and structure of regulators – scope and functions - regulatory process - and regulatory autonomy and accountability - regulatory predictability and certainty

Regulatory law in India

Unit-5 Infrastructure Sector polices, reforms, and laws (14 h)

Power Sector/Electricity – Introduction - evolution of the power sector reforms, polices-National Electricity policy- new legal framework- the state electricity boards- licensing framework- Provisions Relating to and working of Electricity Regulatory Commissions-their structure, role and functions.

Telecommunications - The national telecom policies - the legal framework - Reforms – Policies Oil, Petroleum and Natural Gas - Reforms, policies and legal framework - New Exploration Licensing Policy (NELP) - production sharing contracts- the new Petroleum Regulatory and Natural Gas Board Act – the emerging regulatory reforms

Transport – Law, policy and reforms relating to Airports – Railways - Road – Port/TAMP and an overview of coastal shipping and Inland Water Transport policy. **“Current Streams of Thought”**.

Text Books

- 1) I.P Massey, Administrative Law, Lucknow: Eastern Book Company, 2017.
- 2) Piyush Joshi, Law Relating to Infrastructure Projects, New Delhi: Lexis Nexis Publication, 2014.

Supplementary Readings

- 1) Saravanavel, P. and S. Sumathi, *Legal aspects of Business*, Himalaya Publishing House, Mumbai, 2012.
- 2) D D Basu, *The Constitutional Law of India*, New Delhi: Lexis Nexis Butterworths, 2009.
- 3) Sidney Shapiro & Joseph Tomain, *Regulatory law and policy: Cases and Materials* LexisNexis, 3rd Edition, 2003.
- 4) S K Sarkar, Leena Srivastava (ed), *Reforms in the Infrastructure Sectors: Next Steps*, New Delhi: TERI (2002).
- 5) S Sundar & SK Sarkar (2000), *Framework for Infrastructure Regulation*, New Delhi: TERI.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1																				

CO2	High					Moderate		Low					Moderate	High				
CO3		Low		High										Low	High	Moderate		
CO4	Moderate						High							Moderate				
CO5							High	Moderate									High	
CO6													Moderate					High

	High Correlation		Moderate Correlation		Low Correlation
--	-----------------------------	--	---------------------------------	--	----------------------------

Learning objectives

The objectives of the course is:

- LO1: To know the origins and patterns of International Trade and concepts of terms of trade
 LO2: To understand contemporaneous export procedure, pertinent documents and tariff
 LO3: To acquaint the aspects of international finance and forex markets.

Course Outcomes

Upon completion of the course the students will be able to

- CO1: Get in depth knowledge about export procedure and documents.
 CO2: Describe the aspects of export marketing and pricing methods.
 CO3: Know the facet of export & import finance.
 CO4: Analyze complexities in export pricing.
 CO5: Compare Exim financial services that suits business needs.
 CO6: Evaluate the need for comprehensive and specific export credit insurance policies to the organization.

Unit–1 Theories of International Trade and Nature of International Business and BOT/BOP (14 h)

International Trade – Theories for basis of international trade (The comparative cost theory, opportunity cost theory, Heckschey ohlin theory) – Concepts of terms of trade – Balance of Payment – Balance of Payment disequilibrium and correction – International Orientation and Environment.

Unit–2 Export Procedure and Export Documents and Tariff (12 h)

Offer and receipt of confirmed orders – production clearance of the products – Excise duty rebate – shipment – Negotiation of documents – Export incentives – Bill of Lading, commercial invoice – Certificate of Origin and other export documents – Trade barrier – Tariffs – Classification, impacts – Non tariff barriers – Quantitative restrictions – Tariffs Vs Quota.

Unit–3 International Finance and Foreign Exchange Market (10 h)

Foreign exchange market – functions – methods of effecting international payments – Swap and forward exchange – Determination of Exchange rate – Exchange Control – Methods, Objectives – Exchange rate classifications – Foreign Direct Investment and Foreign Institutional Investments – Euro Dollar and Euro Currency – WTO.

Unit–4 Export Marketing and Pricing (10 h)

Export marketing, Export pricing, costing and packaging factors influencing pricing – Structure of export price – Quotation – Export Contract – F.O.R – F.A.S. – F.O.B. – C&F – CIF – INCO Terms – FRANCO – Pricing Strategies – Impact of incentives on pricing – Labelling, packaging and marking of export consignments.

Unit–5 Export and Import Finance (14 h)

Export Finance – Payment by documentary credit – Letter of Credit – Parties, types – Advance payment – Cash against documents – Documents on Acceptance – Consignment basis – Preshipment Credit and Post shipment Credit – Scrutiny of Export Import Documents - Discrepancies in export documents - Need for export credit insurance – comprehensive and specific policies – Export credit and guarantee corporation – Risks covered and not covered – Import Finance – Export and Import Licence – Types. **“Current Streams of Thought”**.

Text Books

1. Francis Cherunilam, International trade and export management, Himalaya publishing house 2010.
2. Gargi Sanati ,Financing International trade-banking theories and applications, SAGE2019

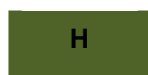
Supplementary Readings

1. Dr.P.Y.Mishra, Principles of International Marketing, Laxmi Book Publications 2017

- Richard Willsher, Export Finance- Risks, Structures and Documentation Macmillan press Ltd 2016.
- Chase C. Rhee, Principles of International Trade, Author House 2018.
- Export Import Management, Ajay Pathak, Educreation publishing 2016.
- Gerald S. Albaum, Edwin Duerr, International marketing and export management Prentice hall 2011

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:		H																		M
CO2:								M											H	
CO3:													L							
CO4:	H												L							
CO5:															M					
CO6:					M											H				



H
High
Correlation



M
Medium
Correlation



L
Low
Correlation

Semester – III

19BIFC306 : Soft Skills

**Credits : 4
Hours: 60**

Learning Objectives

The objective of the course is

LO1: To introduce the basic concepts and to explain the importance of Soft Skills.

LO2: To provide understanding of the various Soft Skills.

LO3: To acquaint various soft skills that would assist students in their career and personal lives.

Course Outcomes

Upon completion of the course students will be able to

CO1: Develop effective communication in oral and written forms.

CO2: Improve their cognitive skills by enhancing learning skills, presentation skills with ICT, problem solving and decision making skills.

CO3: Critically think and evaluate their own self better and build ethical qualities for personal and professional success

CO4: Manage emotions and stress and build team skills for sustainable development in global business environment.

CO5: Analyse conflicts and maintain better interpersonal relationships.

CO6: Develop and incorporate time management and resource management skills to achieve one's own goals.

Unit - 1 Soft Skill and Personality Development (14 h)

Soft skills – Meaning and Importance, Self concept - Self awareness, Self development, Know Thyself – Power of positive attitude – Etiquette and Manners

Listening – Types of Listening – Effective Listening – Barriers to Listening – Assertive communication

Unit -2 Communication Skills (12 h)

Oral communication – Forms – Types of speeches - Public Speaking — Presentation – Elements of effective presentation – Use of visual aids in presentation Written communication – Strategies of

writing – Business letters – form, structure & formats – Types of business letters – Memos – Agenda & Minutes
 Non-verbal communication – Body language – Proxemics

Unit - 3 Interpersonal Skills (10 h)

Interpersonal skills – Relationship development and maintenance – Transactional Analysis Conflict resolution skills – levels of conflict – handling conflict - Persuasion – Empathy – Managing emotions – Negotiation – types, stages & skills – Counselling skills

Unit – 4 Employability Skills (14 h)

Goal setting – Career planning – Corporate skills – Group discussion – Interview skills – Types of Interview - Interview body language - E-mail writing – Job application – cover letter - Resume preparation

Unit - 5 Work Skills (10 h)

Decision making skills – Problem solving – Emotional Intelligence – Team building skills – team spirit – Time management – Stress management – resolving techniques. **“Current Streams of Thought”**.

Text Books

1. Alex. K., Soft Skills, S Chand & Company, 2014.
2. Gopalaswamy Ramesh., The Ace of Soft Skills: Attitude, Communication and Etiquette for Success, Pearson Education, September 2013.

Supplementary Readings

1. Barun Mitra., Personality Development and Soft Skills, Oxford University Press, 2016.
2. Prashant A. Dhanwalkar (Manusmare)., Sai Jyoti Publication, 2015.
3. Gajendra Singh Chauhan, Sangeeta Sharma., Soft Skills: An Integrated Approach to Maximise Personality, Wiley, 2015.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:			H																	
CO2:			H	M			M						H					M	M	
CO3:								M												
CO4:											H									H
CO5:			H			M														
CO6:											M	M	L							

H	High Correlation	M	Medium Correlation	L	Low Correlation
----------	-------------------------	----------	---------------------------	----------	------------------------

Semester – III

19BIFE307 - Value Engineering

Credits : 3

Hours: 60

Learning Objectives

The objective of the course is

- LO1: To acquaint the students with the various concepts of value engineering and value analysis
- LO2: To explain the process of project selection, estimation, and creative thinking in the field of value engineering.
- LO3: To recognise functional approach for value improvement and Instigate the creative thinking for value engineering and discover the importance of functional relationship for value engineering

Course Outcomes

Upon completion of the course, students will be able to

- CO1: Understand the basics of Value Engineering (VE) and value analysis, its methodology and methods for appropriate time.
- CO2: Develop and demonstrate the “function analysis” for infrastructure projects
- CO3: Appreciate various factors for projects selection and develop an appropriate project.
- CO4: Induce creative thinking in judgment of various factors project success and effective usage of ICT.
- CO5: Create alternative solutions for the future with optimal selection or sorting using creative thinking and functional relationships.
- CO6: Critically analyse the factors for project selection, estimation, and creative thinking in the field of value engineering.

Unit-1 Introduction (10 h)

Value Engineering (VE) and Value Analysis (VA) - Life Cycle of a product-Methodology of value engineering – Difference from the conventional methods of cost reduction- necessary costs reasons- Quantitative definition of value- Use value and Prestige value.

Unit-2 Functions (14 h)

Estimation of product Quality/performance-Types of functions- Relationship between Use functions and Esteem Functions in product design – Functional cost and Functional Worth –Effect of Value improvement on profitability-Test for poor value –Aims of Systematic Approach. Functional approach to value improvement-various phases and techniques of Job Plan

Unit-3 Project Selection Concepts (10 h)

Factors governing project selection – Types of Projects-Life Cycle Costing (LCC) for managing the Total Value- Concepts in LCC.

Unit-4 Creative Thinking (12 h)

Creative thinking and creative judgment- positive or constructive discontent- Tangible and Intangible costs of implementation - False material - labour and overhead saving – Relationship between savings and probability of success.

Unit-5 Functional Relationships (14 h)

Type of costs- Function Phase – Evaluation of Functional Relationships- Checks for consistency - Function – cost-weight - matrix - VIP Index – High cost and Poor value areas - Creativity/Speculation Phase – Rules of creativity – Idea activators- Result accelerators – Evaluation Phase – Estimation of costs of ideas- Evaluation by comparison. “**Current Streams of Thought**”.

Text Books

1. Robin Cooper, Regine Slagmulder, “Target Costing and Value Engineering”, Productivity Press, New York, 2017.
2. Anil Kumar Mukhopadhyaya, “Value Engineering: concepts, Techniques and applications”, Sage Publications, 2014.

Supplementary Readings

1. Richard J Park, “Value Engineering – A Plan for Inventions”, CRC Press, 2017.
2. Larry W. Zimmerman, Glen D. Hart, value engineering, CBS publications, 1st edition, 2010.
3. A.D. Raven, Profit Improvement through Value Analysis, Value Engineering and Purchase Price Analysis, Cassell and Co. London, 2007.
4. S S Iyer, “Value Engineering – A How to Manual”, 3rd edition, New Age Publishers, Chennai, ISBN: 978-81-224-2405-8, 2006.
5. Arthur E Mudge, “Value Engineering – A Systematic Approach”, McGraw Hill Book Company, 1971.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1																				

CO2	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	
CO3	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
CO4	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	
CO5	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
CO6	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	

High Correlation	Moderate Correlation	Low Correlation
------------------	----------------------	-----------------

Semester – III **19BIFE308: Project Procurement And Quality Management In Construction** Credits : 3
Hours: 60

Learning Objectives

The objective of the course is

- LO1: To acquaint the students with the basic concepts of procurement and methods
- LO2: To explain the project contracts methods, administration and issues and identify the quality indicators and the process of quality management.
- LO3: To provide an insight into the application of ISO and other International standards for the purpose of better procurement and give insights about the safety issues of the construction industry.

Course Outcomes

Upon completion of the course, students will be able to

- CO1: Manage the procurement process of the company.
- CO2: Initiate and close the contract for procurement.
- CO3: Analyse and implement the quality aspects in construction industry.
- CO4: Initiate and execute the process of quality certification
- CO5: Demonstrate the safety and create awareness of the safety in an industry.
- CO6: Effectively use the ICT for the procurements process and quality assurance.

Unit-1 Introduction (12 h)

Introduction to procurement systems; Common Variants of Main Procurement Systems; Separated Procurement Systems; Integrated Procurement Systems; Management-Oriented Procurement Systems - Management contracting, Construction management; Design and manage; Discretionary Procurement Systems; Project partnering; Strategic partnering.

Unit-2 Project Contracts (11 h)

Project Alliancing; Relational Contracting; Contract Administration – Contract Management – Project Procurement Process – Organisational Design – Issues in Procurement Systems: Cultural, Social, legal and technological.

Unit-3 Quality Control (11 h)

Introduction to quality – Importance of quality – Quality transition - quality control and inspection, quality assurance – Quality management: Evaluation – Planning - Control and design of structures.

Unit-4 ISO Standards (12 h)

Inspection of materials and machinery; Quality assurance in construction; Systems quality management; Quality standards/codes in design and construction; (ISO:9000); Total quality management (TQM) - principles, tools and techniques.

Unit-5 Safety in Construction Industry (14 h)

Introduction to safety; Safety and health programmes, safety provisions; construction hazards, accidents and safety guidelines; Accidents prevention techniques - Site management with regard to safety recommendations – Safety awareness and implementation. **“Current Streams of Thought”**.

Text Books

1. F. Harris, R. McCaffer and F. Edum-Fotwe, Modern construction management, 6th ed., Blackwell Publishing, Oxford, 2006.
2. Abdul Razzak Rumane, “Quality management in Construction Projects”, CRC Press,

Newyork, 2016.

Supplementary Readings

1. D. Walker and S. Rowlinson, Procurement systems - A cross-industry project management perspective, Spon, London, 2008.
2. C. D. Reese and J. V. Eidson, Handbook of OSHA construction safety and health, 2nd ed. CRC Press, Boca Raton, 2006.
3. D. Walker and K. Hampson, Procurement strategies - A relationship-based approach, Blackwell Publishing, Oxford, 2003.
4. B. G. Dale, Managing quality, 4th ed., Blackwell Publishing, Oxford, 2003.
5. J. W. E. Masterman, An introduction to building procurement systems, Taylor & Francis, London, 2002.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1		High				Moderate							High		Moderate					
CO2	Moderate						High	Moderate						Moderate		High				Moderate
CO3					Moderate						High	Moderate			Moderate			Moderate		High
CO4			High						Moderate			Moderate	High						Moderate	High
CO5	High		Moderate			Moderate	Moderate							Moderate		High				Moderate
CO6				Moderate							High							High		

High Correlation	Moderate Correlation	Low Correlation

Semester – III

19BIFC309: Project Viva

Credits : 2

Project Training

Summer project is an on-the-job training that inculcates practical knowledge and improves performance by giving an insight into business realities. As a part of the curriculum, the project is intended to input practical and conceptual knowledge to the students which is to be carried out for 45 days during May-June.

A committee is constituted for the overall Co-ordination of the students. The students undertake projects in various organizations all over the country. Faculty members also render their help in finding project placements. Students will be allotted faculty guides and they are advised to undertake projects based on their individual area of specialization. The topics are selected by consulting with their project guides and company guides.

MBA project End Semester evaluation will be done for 75 marks which includes Dissertation (50 marks) and Viva voce (25 marks) and the minimum requirement for passing the project is 38 marks. The internal assessment evaluation carries 25 marks that constitute two reviews (I review-10 marks and II review-15 marks) and the minimum requirement for passing the internal evaluation is 12 marks. Overall the minimum passing requirement for the project is 50 marks.

A Project Evaluation Committee will be formed comprising the Head of the Department, Project Supervisor, and a senior faculty.

Project Related Activities

- Project discussions for students with their guides have to be made once in a week.
- Students can make use of the computer lab facilities for execution of their project work and for preparation of their report.
- Frequent workshops and review meetings will be conducted with trainers and experts of various disciplines.
- A formal interim – project presentation will be held before their juniors. This presentation acts as a good ground of experience on the part of the presenters while a good beginning of insight for the juniors.

- A mock viva–voce will be held before appearing for their main project viva–voce examination to gain an experience.
- Best Project Contest will be conducted every year to provide a platform to exhibit the skills they have acquired during the summer project training.
- Students are encouraged to participate in the National Level Project contest held at various institutions.
- Students are also encouraged to work towards publishing a paper along with the help of their faculty guide to add a real value to their project work.

Learning Objectives

The objective of the course is

LO1: To explain the IT infrastructure and development over the years and the process of designing IT organisations.

LO2: To provide the current computing environment and multiple technologies and enable the students to identify the methods of storage, recovery and managing the data for an organisation.

LO3: To introduce the importance of security, firewall and role of cyber ethics and intellectual property.

Course Outcomes

Upon completion of the course, students will be able to

CO1: Estimate and develop the ICT requirements for infrastructure management.

CO2: Describe the business value and processes of ICT services in an organisation and apply that knowledge and skill with initiative to a workplace scenario.

CO3: Evaluate how effective IT Infrastructure Management requires strategic planning with alignment from both the IT and business perspectives in an organization.

CO4: Demonstrate the technical and communications skills that contribute to the operation of ICT services in an organisation.

CO5: Improve the effective methods for storage, recovery and managing the data for an organisation.

CO6: Understand and develop security, firewall and intellectual property.

Unit-1 Introduction (12 h)

Definition - Infrastructure Management Activities - Evolutions of Systems (Mainframes-to-Midrange-to-PCs-to-Client-Server Computing-to-New Age Systems) - Growth of Internet - Current Business Demands and IT System Issues - Complexity of Today's Computing Environment - Value of Systems Management for Business.

Unit-2 Designing (12 h)

Factors to Consider in Designing IT Organizations And IT Infrastructure - Determining Customer's Requirements - Identifying System Components to Manage - Exist Processes - Data - Applications - Tools and Their Integration - Patterns for IT Systems Management - Introduction To The Design Process For Information Systems – Models - Information Technology Infrastructure Library (ITIL).

Unit-3 System Management and Computing Environment (13 h)

Common Tasks in IT System Management - Approaches for Organization Management - Models in IT System Design - IT Management Systems Context Diagram - Patterns For IT System Management; Complexity of Current Computing - Multiple Technologies - Multiple Vendors - Multiple Users - e-Waste Disposal - Total Cost of Ownership.

Unit-4 Storage Management (10 h)

Introduction - Types - Benefits - Backups - Archive - Recovery - Disaster Recovery - Space Management - Hierarchical Storage Management - Network Attached Storage - Storage Area Network - Bare Machine Recovery - Data Retention - Database Protection

Unit-5 Security (13 h)

Introduction Security - Identity Management - Single Sign-On - Access Management. Basics Of Network Security - LDAP Fundamentals - Intrusion Detection - Firewall - Security Information Management - Introduction To Cyber Ethics - Intellectual Property - Privacy and Law - Computer Forensics - Ethics And Internet - Cyber Crimes. **“Current Streams of Thought”**.

Text Books

1. Kenneth C Laudon, Jane P Laudon, —Management Information Systems. Managing the digital firm, 13th edition, Pearson education ltd., Delhi, 2017.

- Sharma S, "IT Infrastructure And Its Management", Vayu Education Of India, 2012.

Supplementary Readings

- James A O'Brien, —Management Information Systems, 10th edition, Tata Mc Graw Hill, 2011.
- Rich Schiesser, IT Systems Management, Prentice Hall Publication, 2nd edition, 2010.
- Phalguni Gupta, Surya Prakash and Umarani Jayaraman, "IT Infrastructure and its Management", Tata McGraw Hill Education Pvt. Ltd., New Delhi – 2009.
- E Turban, E Mclean and James C. Wetherbe, — Information Technology for Management: Transforming Organizations in the digital economy, 6th edition, John Wiley and sons Ltd., Newyork, United States.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1	High			Moderate					Low				High			Moderate				
CO2		Low		High			Moderate	High			Low						High			Moderate
CO3		Low												High						Low
CO4			High				Moderate		High		Low									
CO5					Moderate	High							High		Low		High			Moderate
CO6	High				Low			Moderate				Moderate				Low				High

High Correlation	Moderate Correlation	Low Correlation

Semester – IV

19BIFC402 : Business Policy And Strategic Management

Credits : 3

Hours: 60

Learning Objectives

The objective of the course is

LO1: To explain about the Business Environment.

LO2: To introduce the basic concepts and importance of Business Policies and Strategies

LO3: To Acquaint the formulation and implementation of Business Policies and Strategies.

Course Outcomes

Upon completion of the course students will be able to

CO1: Understand and get knowledge on managerial functions such as the internal and external environment of the organization.

CO2: Improve the cognitive skills that related to Mission, Vision, Goals, Objectives, Policies and Strategies of any organisation.

CO3: Evaluate and Develop strategic management tools and recommend strategic responses to business problems.

CO4: Develop strategic management plan for sustainable development of the organization

CO5: Analyse and Implement their responsibility to the society and business organisation .

CO6: Understand the social responsibilities, ethical and social considerations of business organisation.

Unit–1 Basic concepts of Business Policy (14 h)

Business Policy: Meaning and definition – Importance – Scope – Need Essentials of An Effective Business Policy, Types and Classification of Policies – Organizational Direction: Vision – Mission – Objectives – Goals of business, Business Planning: Process – Benefits – Limitation.

Unit–2 Business Analysis (10 h)

Business Portfolio Analysis: BCG matrix – GE matrix, Industry Analysis: Michael Porter's Five force model – Strategic Competitive Advantage Analysis – Values Chain in Analysis – 7' Frame work – SWOT analysis.

Unit–3 Basic concept of strategy (14 h)

Evolution of Strategy – Strategic Management – Benefits – Strategy Vs Policy – Strategy Formulation – Strategic Planning – Strategic Management Process – Strategic Decision Making – Strategic Risks – Corporate Level Generic Strategies – Strategy Implementation: Functional Issues, Challenges of Strategy Implementation – Strategic Evaluation and Control Process – Monitoring Performance and Evaluating Deviations

Unit-4 Business Development Strategies (12 h)

Corporate Governance – Business Growth Strategies: Intensive – Integrative – Diversification Strategies, Functional Strategies: Marketing Strategies – Production Strategies – HR Strategies – Financial Strategies – Product Strategies, Business Process Re-engineering.

Unit-5 Business Vs Social (10 h)

Corporate Social Responsibility – Social Audit: Benefits – Procedures, Ethical and Social Considerations in Strategy Development – Business Organization in Society – Social issues in Business - Strategic Management in Non-Profit Organization. **“Current Streams of Thought”**.

Text Books

1. Subba Rao, P., Business Policy And Strategic Management, Himalaya Pub.House, 2014.
2. Cherunilam F., Business Policy And Strategic Management, Himalaya Pub.House, 2015

Supplementary Readings

1. Kazmi, Strategic Management, McGraw Hill Education, 2015.
2. Vijay Pithadia., Strategic Management and Business Policy (BIZTANTRA), Dreamtech Press, 2016
3. Elisha Stephens & Brice Martin., Business Policy and Strategic Management, ED-TECH PRESS, 2018.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:													H							
CO2:		H												M						
CO3:																	H			
CO4:											M						H			
CO5:																			M	
CO6:								H						H						



High Correlation



Medium Correlation



Low Correlation

Learning Objectives

The objective of the course is

- LO1: To explain the supply chain decisions and supply chain drivers and enlighten the factors of distribution, designing network and their trade-offs
- LO2: To teach about the outsourcing principles and pricing methodologies, importance of coordination, demand management and customer service.
- LO3: To create awareness about the role of information technology in supply chain.

Course Outcomes

Upon completion of the course, students will be able to

- CO1: Evaluate complex qualitative and quantitative data to support strategic and operational decisions of supply chain.
- CO2: Develop comprehensive strategic and tactical plans for supply chain management.
- CO3: Generate creative, critical and reflective thinking to address organizational opportunities and challenges in supply chain.
- CO4: Improve appropriate technologies in developing solutions to business opportunities and challenges in supply chain.
- CO5: Analyse, forecast the demand and serve the customer accordingly.
- CO6: Identify and develop ICT for effective implementation of supply chain.

Unit-1 Introduction to Supply Chain Management. (10 h)

Supply chain – objectives – importance – decision phases – process view – competitive and supply chain strategies – achieving strategic fit – supply chain drivers – obstacles – framework – facilities – inventory – transportation – information – sourcing – pricing, pricing, Key issues and benefits of SCM.

Unit-2 Designing the Supply Chain Network. (12 h)

Designing the distribution network, role of distribution, factors influencing distribution, design options, distribution networks in practice, network design in the supply chain, factors affecting the network design decisions. Designing and Planning Transportation Networks, role of transportation, modes and their performance, transportation Infrastructure and policies, design options and their trade-offs, tailored transportation.

Unit-3 Sourcing and Pricing of infrastructure. (12 h)

Sourcing – In-house or Outsource – 3rd and 4th PLs – supplier scoring and assessment, selection design collaboration – procurement process – sourcing planning and analysis.
Pricing and revenue management for multiple customers, perishable products, seasonal demand, bulk and spot contracts.

Unit-4 Information Technology in the supply chain. (11 h)

IT Framework – customer relationship management – internal supply chain management – supplier relationship management – transaction management, RFID, EDI – future of IT. – collaborative planning, forecasting and replenishment, Role of computer/ IT in supply chain management.

Unit-5 Coordination in a Supply Chain: (15 h)

Lack of supply chain coordination and the Bullwhip effect – obstacle to coordination – managerial levers – building partnerships and trust – continuous replenishment and vendor-managed inventories (VMI).

Demand Management and Customer Service: Logistics costs, Logistics activities and elements, Outbound to customer logistics systems – Demand Management – Traditional Forecasting – Collaborative Planning Forecasting Replenishment Planning (CPFRP) – customer service – expected cost of stock outs – channels of distribution. **“Current Streams of Thought”**.

Text Books

1. Rahul V Altekar, " Supply Chain Management Concepts and Cases" PHI Pvt. Ltd., 2012.
2. K Sridhar Bhat, Logistics and Supply Chain Management, HPH, New Delhi, 2011.

Supplementary Readings

1. Agarwal DK, A text book of logistics and supply chain management, - 1st edition, macmillan, 2008.
2. Donald J Bowersox, Dand J Closs, M Bixby Coluper, Supply Chain Logistics Management, 2nd Edition, TMH, 2008.
3. Chopra Sunil and Peter Meindl Supply chain management, - 3rd edition, Pearson, 2007.
4. Coyle, Bardi, Longley The Management of Business Logistics – A supply Chain Perspective:, Thomson Press, 2006.
5. B.S. Sahay, Supply Chain Management, Macmillan, Pearson Education, 2004.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1																				
CO2																				
CO3																				
CO4																				
CO5																				
CO6																				

High Correlation	Moderate Correlation	Low Correlation	Low Correlation

Semester – IV

19BIFC404: Indian Ethos And Values

Credits : 3

Hours: 60

Learning Objectives

The Objectives of the Course are:

- LO1: To acquaint the students on the applications of Indian Ethos and values; managerial decision- making process.
- LO2: To train students in Yoga practices such as Asnas (yogic exercise), meditation(exercise for mind), Pranayama (exercise for breath),
- LO3: To Introspect (practices for positive thinking) and to manage stress in their managerial career.

Course Outcome

The completion of this course will result in

- CO1: Enhancing the understanding of Ethics and Religious Values
- CO2: Increasing capacities on Indian Ethos for Business Excellence
- CO3: Managing stress in real world situations
- CO4: Practicing yoga and meditation for better mental health
- CO5: Exercising yoga and meditation for better physical health and social skills
- CO6: Implementing the outcome of Yoga for Managerial Excellence

Unit–1 Ethics and Religious Values (14 h)

Value based management – Ethics – Definition – Meaning – Ethical Analysis in decision making – Cultural Values and Indian Management Ethos – Trans–cultural human values – Total quality mind for TQM – Models of values for organizational culture – Values for Indian managers – Guna Theory – Professional Ethics – Business ethics – Values and ethics from religions: Buddhism, Jainism, Sikhism, Judaism, Taoism, Christianity, Islam.

Unit–2 Indian Ethos for Business Excellence (12 h)

Principles of Indian Ethos – Gita lessons for management – Kautilya’s Arthasastra Principles – Karma Yoga – Nishkamy karma – Manu Dharma – Management lessons from Thirukkural – Divine managerial qualities.

Unit–3 Stress Management (10 h)

Stress management – Types of Stress – Mechanism – Organizational Stressors – Various stress management techniques. Vethathiri Maharishis’ views on Mind – Mind – Body – Conscious – relationship – Anger Management.

Unit-4 Theories in Yoga (10 h)

Mental health – Yoga – meaning – Patanjali yoga sutras – Detailed steps in Yoga and Meditation – Conditional and unconditional types. Different views on Meditation.

Unit-5 Yoga for Managerial Excellence (14 h)

Emotional Quotient and yoga – Spiritual Quotient and yoga – Concept of self and Yoga – Mahatma Gandhi and Introspection – Thought analysis – Positive thinking – Trust – Holistic Creativity – Visualization techniques. “Current Streams of Thought”.

Text Books

1. Khandelual, *Indian Ethos and Values for Managers*, Himalaya Publishing House. 2012
2. Chakraborty, *Management Effectiveness and Quality of Work Life Indian Insight*, TMH, 2007.

Supplementary Readings

1. Indian Ethos and Values Essay Example For Students | Artscolumbia
<https://artscolumbia.org › Essays>
2. Indian Ethos & Values in Modern Management ;
<https://himadri.cmsdu.org/documents/indianethos.pdf>
3. Indian Ethos and Management - ISIB
isib.co.uk/lms/wp-content/uploads/2015/02/Indian-Ethos-and-Management.pdf
4. Indian Ethos And Values In Management R Nandagopal and ... - bvimsr
www.bvimsr.com/documents/publication/2012V4N1/15.pdf
5. Indian Ethos in Management - RCCM Indore
rccmindore.com/wp-content/uploads/2015/06/Indian-Ethos-in-Management.pdf

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1:		H	H			H		M		M										
CO2:		H	H			H	M	√			√	M		L	M			H	H	
CO3:		H	H			H	M			M		M			M	M		H	H	
CO4:		H	H		√	H	M			M		M		L	M	M		H	H	
CO5:		H	H			H	M	√		M		M		L		M		H	H	L
CO6:			H			H	M			M	M	M								

H High Correlation

M Medium Correlation

L Low Correlation

Learning Objectives

The objective of the course is

LO1: To acquaint the concept of globalization, internationalization and participants of international business.

LO2: To explain the concepts, functions and practices of international business and the international business environment and the factors of design.

LO3: To enable students to get global perspective on issues related to infrastructure management and awareness about International Contributions to World class manufacturing.

Course Outcomes

Upon completion of the course, students will be able to

CO1:	Evaluate the international environment and related issues of infrastructure management.
CO2:	Critically analyse the impact of LPG in infrastructure management
CO3:	Analyse the international quality standards of infrastructure projects and implement them.
CO4:	Design infrastructure organization for international business
CO5:	Create strategies for competitive advantage and effective use of ICT.
CO6:	Understand various world class manufacturing techniques and use it effectively in their projects.

Unit-1 Introduction (12 h)

Evolution of International Business (IB)-Nature of IB- Drivers of globalization- Routes of globalization. Globalization: Boon or Bane?-Goals of IB-Differences between domestic business and IB-stages of internationalization –Advantages and limitations and challenges of entering IB-Players in IB.

Unit-2 Business Environment (14 h)

International Business Environment- Socio-Cultural environment, Political environment, Legal environment and dispute settlement mechanism, Technological Environment, Economic environment, natural environment. Global Strategic Management and Multinational Enterprises-Role of strategy- choice of strategy-Global Market Entry Strategies- Justin's Globe-Hex Model: Strategies for success.

Unit-3 Organizational Design for IB (08 h)

Factors affecting global design – product design –area design –functional design – division structure.

Unit-4 International operations management (12 h)

Operations management and competitive advantages – strategic issues – strategic role of foreign plants – international logistics – managing service operations - International R&D- Managing Technology Transfers.

Unit-5 International Contributions to World class manufacturing (14 h)

Japanese management overview- management style - employee involvement - drawbacks of Japanese management. Japanese manufacturing techniques- JIT- eliminating waste and adding value- the seven wastes- value added manufacturing. Total quality control - Deming's contributions to TQC. Application of Japanese manufacturing in the US. **“Current Streams of Thought”**.

Text Books

1. International Business Environments and Operations, John D. Daniels, etal, Pearson Education, 11th Edition, 2015.
2. International Business, Darrell Mahoriy, etal, Longman, PHI, 11th Edition, 2015.

Supplementary Readings

1. International Business, Charles W.L. Hill, McGraw-Hill, 10th Edition, New Delhi, 2013.
2. International Business, Justin Paul, PHI Learning, 6th Edition, New Delhi, 2013.
3. International Business, Aswathappa K, Tata McGraw Hill, 4th Edition, New Delhi, 2010.
4. Production and Operations Management, Concepts, models and Behaviour, Everett E.

- Adam, Jr. & Ronald J. Ebert, PHI Learning, 5th Edition, 2010.
 5. Global Business, Czinkota, etal, Dryden Press, 8th Edition, 2009.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1																				
CO2																				
CO3																				
CO4																				
CO5																				
CO6																				

	High Correlation		Moderate Correlation	
				Low Correlation

**Semester – IV 19BIFE407: Environmental Impact And Risk Assessment Credits : 3
 Hours: 60**

Learning Objectives

The objective of the course is

- LO1: To explain the environmental impact, the methods of assessment and environmental risk.
- LO2: To expose the risk assessment and communication aspects involved in real time business.
- LO3: To enable mathematical modeling for impact prediction, the process and impact of social impact assessment.

Course Outcomes

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

CO1:	Understand the basics of environmental impact assessment and its Legal and Regulatory Aspects in India
CO2:	Critically demonstrate the purpose, process and limitations of EIA in the decision-making process.
CO3:	Understand and evaluate the components of EIA and usage of ICT in analyzing the assessment of environmental risk.
CO4:	Adopt, plan and apply commonly used environmental impact assessment methodologies and methods and develop their own methods.
CO5:	Develop, prepare, implement rehabilitation plans aligned with policies and guidelines to safeguard environment.
CO6:	Understand the environmental risk assessment framework and assess socio-economic impact and environmental risk impact.

Unit-1 Introduction (10 h)

Basic fundamentals: Historical Development of Environmental Impact Assessment-EIA in Project Cycle-Legal and Regulatory Aspects in India-Types and Limitations of EIA-Cross sectoral Issues and terms of references in EIA.

Unit-2 Components of EIA (13 h)

Components of EIA environmental risk assessment: EIA Process-Screening and Scoping-Public Participation in EIA-Mitigation. Methodology: Methods for Environmental assessment-Matrices & Networks-Checklists- Cost benefit analysis-Analysis of Alternative-Software Packages for EIA and Expert Systems in EIA.

Unit-3 Prediction and assessment (11 h)

Prediction tools for EIA - Mathematical modeling for impact prediction-Assessment of Impacts on Air and Water-Assessment of Impacts on Soil and Noise -Assessment of Impacts on Biological Community-Cumulative Impact Assessment-Documentation of EIA Findings & Report Preparation.

Unit-4 Socio-economic impact assessment (14 h)

Socio-economic impact assessment: Definition of Social Impact Assessment-Social Impact Assessment model and the --planning process-Relationship between social impacts and change in

community and institutional arrangements-Individual and family level impacts –Communities in transition.

Environmental management plan: Environmental Management Plan – Preparation and implementation and Rehabilitation plans-Policy and guidelines for planning and monitoring programmes - Post Project Audit-Ethical and Quality aspects of Environmental Impact Assessment—case studies.

Unit-5 Environmental risk assessment: (12 h)

Environmental risk assessment framework-Hazard identification -Dose Response Evaluation – Exposure Assessment – Exposure Factors, Tools for Environmental Risk Assessment– HAZOP and FEMA methods – Event tree and fault tree analysis - Risk Characterization Risk communication - Emergency Preparedness Plans –Design of risk management programs. “Current Streams of Thought”.

Text Books

1. Peter Wathern, Environmental Impact Assessment: Theory & Practice, Routledge publisher, 2015.
2. Stephen Tromans, Environmental impact assessment, Bloomsburg publishing, 2012.

Supplementary Readings

1. Anjaneyalu, Vallimanaickam, Environmental Risk Assessment methodologies, B.S publications, 2nd edition, 2011.
2. Lawrence, D.P., “Environmental Impact Assessment – Practical Solutions to recurrent problems”, Wiley-Interscience, New Jersey, 2003.
3. Petts J., “Handbook of Environmental Impact Assessment’, Vol., I and II, Blackwell science, London, 1999.
4. Canter L.W., “Environmental Impact Assessment”, McGraw Hill, New York, 1996.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1							High	Moderate				Moderate	High							
CO2	High		Moderate											High	Moderate	High				
CO3		High		Moderate											Moderate				High	
CO4		Moderate			High				Moderate		Moderate						Moderate			High
CO5					High	Moderate			High		Moderate						Moderate			High
CO6								Moderate				Moderate		Moderate		High				

High Correlation		Moderate Correlation	Low Correlation

Semester – IV

19BIFE408: Disaster Mitigation And Management

Credits : 4
Hours: 60

Learning Objectives

The objective of the course is

- LO1: To explain the various concepts in disaster and realize the possibilities of earthquake, causes and energy release.
- LO2: To analyze the protection measure for disaster and from natural calamities.
- LO3: To manipulate the Vulnerability assessment and the zoning regulations and construction quality.

Course Outcomes

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

CO1:	Understand the difference between hazard, disaster, Disaster Management Policy, Procedure and Institutional Mechanism
CO2:	Analyse and evaluate the environmental, social, cultural, economic, legal factors of disaster
CO3:	Evaluate the environmental, social, cultural, economic, legal and organisational aspects influencing vulnerabilities and capacities to face disasters.
CO4:	Critically evaluate protection measures during disaster, flood, landslide and avoiding

	damages to building by strengthening existing and restoration.
CO5:	Generate protection measures during landslide and strengthening existing and restoration.
CO6:	Develop the framework for the disaster management & disaster mitigation and effective usage of ICT in disaster management.

Unit-1 Introduction (12 h)

Difference between hazards and disaster –Types of disasters-Phases of disaster Management - Hazards -Classification of Hazards - Hazards affecting buildings - Building safety against hazards – Floods – Cyclone – Landslides –Tsunami and Fire. Disaster Management Policy and Procedure – legal frame work – Institutional Mechanism –Schemes and Grants on DM.

Unit-2 Earthquake Disaster (12 h)

Earthquake Disaster - Earthquake Hazard Map -Causes of Earthquakes -Classification of Earthquakes - -Seismic waves -Energy release - Inertia forces, Natural period -Resonance, Damping -Seismic response of free vibration -Seismic response of damped vibration.

Unit-3 Protection Measures (08 h)

Landslides – Floods – Tropical cyclones - Tsunami - Mitigation strategies.

Unit-4 Hazard Assessment (14 h)

Vulnerability Assessment – Hazard Assessment – Seismic Strengthening of Buildings-Repairs Restoration Strengthening of Existing Buildings Strengthening Materials-Retrofitting of Load Bearing Wall Buildings Retrofitting of RC Buildings.

Unit-5 Land use Zoning Regulations & Quality control 14 h

Introduction-Community planning Community Contingency plan –Report building and initial awareness- Recommendations For Land use Zoning Regulations - -Construction Quality Control - Evolution of Quality Management -Reasons for poor construction -Construction of Quality control in Masonry Structures. “Current Streams of Thought”.

Text Books

1. Rajan Kumar Sahoo, Management and Mitigation of Natural Disaster, Regal Publications, 1st edition, 2014.
2. Dr. U.Sai jyoti, SIA Expert, Disaster management and mitigation, JNTU-A, SIA Publisher, 2018.

Supplementary Readings

1. Singh R.B, “Disaster Management”, Rawat Publications, 2008.
2. Ghosh G.K. “Disaster Management”, A.P.H. Publishing Corporation, 2006
3. Goel, S. L. “Encyclopaedia of Disaster Management”, Deep & Deep Publications Pvt Ltd., 2006
4. Ayaz Ahmad, “Disaster Management: Through the New Millennium”, Anmol Publications, 2003.
5. Sahni, Pardeep et.al. (eds.), Disaster Mitigation Experiences and Reflections, Prentice Hall of India, New Delhi. 2002.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1																				
CO2																				
CO3																				
CO4																				
CO5																				
CO6																				

High Correlation	Moderate Correlation	Low Correlation

Semester – IV

**19BIFC409: Comprehensive Viva-Voce
(Infrastructural Visits And Subjects)**

Credits : 2

VALUE ADDED COURSES

Even (II) Semester 19BVAC211 : SMALL BUSINESS MANAGEMENT Credits: 2
Hours: 60

Learning Objectives:

The objectives of this course is

LO 1 To impart knowledge in project management tools and techniques practiced in a project.

LO 2 To provide exposure in the methods adopted in identifying a new project and to know the difference between pre-feasibility and feasibility study.

LO 3 To understand the role of entrepreneur in the Indian context and to expose to the importance of small scale industry.

Course outcomes:

Upon completion of the course, students will be able to

CO 1 Generate new methods to identify a project.

CO 2 Analyse the project organization structure.

CO 3 Critically evaluate the reasons for the sickness in small scale industry.

Unit-I Project Planning (14 hrs)

Definition of project – Classifications of projects – Importance – Scope – Project Identification – Idea generation and Screening – Project selection and Planning – Project Formulation – Project life cycle – Project Organisation – Roles and Responsibilities of project manager – Managing project team.

Unit-II Project Feasibility and Project Finance and Evaluation (12 hrs)

Pre-feasibility study – Market and Demand analysis – Feasibility Study: Technical – Commercial – Environmental – Socio economic – Managerial and Financial analysis – Detailed Project Report – Resource Survey – Selection of plant location – Project contracts – Insurance for projects – Project Implementation.

Estimating project time and cost – Cost of capital – Source of finance – Cost control – Project Scheduling and Monitoring – Project Information System and Documents – Project Report – Social Cost Benefit Analysis – Project Evaluation and Performance Review Techniques.

Unit-III Introduction to Entrepreneur (10 hrs)

Definition – Concept – Classification and types of entrepreneurs – Entrepreneurial Traits – Need and Important – Roles and Responsibilities of Entrepreneurs in Indian business context – Entrepreneurial Motivation – Entrepreneurial Development Programme: Role and objectives of the programme – Contents – Institutions aiding Entrepreneurs – Central and State level Institutions.

Unit-IV Entrepreneurship Environment and Challenges (10 hrs)

Entrepreneurship environment: Social – Cultural – Political – Natural – Geographic – Technological – Economic Environment and its impact on Entrepreneurship – Factors affecting entrepreneurial growth – Globalization and its challenges – Steps to face global challenges – Strategies for the development of women entrepreneurs.

Unit-V Small Business Management (14 hrs)

Small Enterprises – Definition – Classification – Characteristics – Ownership Structures – Steps involved in setting up a small business – Identifying and selecting a good Business opportunity – Market potential analysis – Marketing methods: Pricing and Distribution methods. Sickness in small Business: Concept – Magnitude – Causes and Consequences – Corrective Measures – Government Policy on Small Scale Enterprises – Growth Strategies in small industry: Expansion – Diversification – Joint Venture – Merger and Sub Contracting.

Text books:

1. Prasanna Chandra, Projects, Tata Mcgraw hill, Newdelhi, 2007
2. Khanka.S.S, Entrepreneurial Development, S.Chand& company, Nwedelhi, 2008.

Supplementary readings:

1. Clifford F. Gray and ErikW.Larson, Project management, Tata Mcgraw hill, Newdelhi,20007.
2. Nagarajan.K, Project Management, New Age International publishers, Newdelhi, 2007.
3. Robert D Hisrich, Michael P.Petersand Dean A. Shepherd, Entrepreneurships, Tata Mcgraw hill, Newdelhi,2007.
4. Vasant Desai, Dynamics of Entrepreneurial Development and Management, Himalayas publishing house, Newdelhi, 2008.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes								
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8	
CO1							M						L								H
CO2									H							M					
CO3	L								H								M				H
CO4				M										M							
CO5											H										H
CO6							M											H			



H
High Correlation



M
Medium Correlation



L
Low Correlation

Even (II) Semester 19BVAC212: INTRODUCTION TO BUSINESS ANALYTICS Credits: 2
Hours: 60

Learning Objective:

- LO 1 Studies core statistical techniques; data retrieval, analysis and mining;
- LO 2 Decision modeling to effectively persuade in the project-oriented world of data-driven decisions.
- LO 3 To understand the purpose of using business analysis tools within an organization, dataset for making a business decisions and R studio for data analysis.

Course Outcome

Upon completion of this course, the student will have the ability to

- CO 1 Critically analyze the business problems especially solves business problems.
- CO 2 Recognize, understand and apply the language, theory and models of the field of business analytics
- CO 3 Students can able to understand the applications of business analytics.
- CO 4 They have get ideas on data visualization and time series analysis.
- CO 5 Compare the application of using R statistics

UNIT I Introduction to Business Analytics and Big Data (14 hrs)

Business Analytics – Definition - Need – Scope - A categorization of Analytical Methods – Analytics in action – Big data – Business analytics in practice – types of data – modifying data in excel – creating Distributions from data- measures of location

UNIT II Application of Business Analytics (10 hrs)

Machine Learning - Introduction and Concepts - Differentiating algorithmic and model based frameworks, Decision analytics. Descriptive analytics - Predictive analytics - Prescriptive analytics.

UNIT III Decision support and Data Visualisation (10 hrs)

DSS- Executive and enterprise support- Automated decision support - Web analytics- Data mining -Applied artificial intelligence - Visual analysis: Data concepts – Data Dashboards - Data exploration & visualization - Scorecards

UNIT IV Time Series and Forecasting (14 hrs)

Time series pattern – forecasting accuracy – moving averages and exponential smoothing - using regression analysis for forecasting – determining the best forecasting model to use - building good spreadsheet model – What-If analysis – some useful excel functions for modeling – auditing spreadsheet model – a simple maximization problem.

UNIT V Data Analysis using R (12 hrs)

R Studio: Introduction – R data types and objects, reading and writing data - Data structures in R - R programming fundamentals - Advantages and disadvantages of using R.

Text Books

- 1) Majid Nabavi, David L.Olson, Introduction to Business Analytics, Business Expert Press, 2018
- 2) Umesh R Hodeghatta and Umesha Nayak, *Business Analytics Using R - A Practical Approach*- Apress, 2017.

Supplementary Readings

- 1) Jeffery D.Camm, James J. Cochran, Michael J. Fry, Jeffrey W. Ohlmann, David R. Anderson, Essentials of Business Analytics, Cengage Learning, 2015
- 2) Sandhya Kuruganti, Business Analytics: Applications To Consumer Marketing, McGraw Hill, 2015
- 3) Bernard Marr, Big Data: Using Smart Big Data, Analytics and Metrics to Make Better Decisions and Improve Performance, Wiley, 2015

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes								
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8	
CO1			M					M					L								H
CO2										H											H
CO3	L									H							M				H
CO4				M										M							
CO5										H											H
CO6								M											H		

H High Correlation

M Medium Correlation

L Low Correlation

Learning Objective

The objective of the course is

- LO1: To introduce the cyber world and cyber law in general
- LO2: To explain about the various facets of cyber crimes
- LO3: To enhance the understanding of problems arising out of online transactions and provoke them to find solutions
- LO4: To clarify the Intellectual Property issues in the cyber space and the growth and development of the law in this regard,
- LO5: To educate about the regulation of cyber space at national and international level.

Course Outcome

After completing the course, students will be familiar with

- CO1: Understanding concepts related to cyber world and cyber law in general
- CO2: Develop competitive edge on various facets of cyber crimes
- CO3: Problems arising out of online transactions and provoke them to find solutions
- CO4: Intellectual property issues in the cyber space and the growth and development of the law
- CO5: Regulation of cyber space at national and international level.
- CO6: Upholding ethical standards in cyber laws and intellectual property issues

Unit-1 Introduction to Web Technology (12 h)

Introduction, Computers and its Impact in Society, Overview of Computer and Web Technology, Need for Cyber Law, Cyber Jurisprudence at International and Indian Level – Introduction to e-governance, techniques, e-governance in India, Challenges faced, Indian theory of Public administration

Unit-2 International Cyber Law (12 h)

Cyber Law - International Perspectives, UN & International Telecommunication Union (ITU) Initiatives, Council of Europe - Budapest Convention on Cybercrime, Asia-Pacific Economic Cooperation (APEC), Organization for Economic Co-operation and Development (OECD), World Bank, Commonwealth of Nations

Unit-3 Cyber Crimes & Legal Framework (12 h)

Concepts of Cyber Crimes & Legal Framework, Cyber Crimes against Individuals, Institution and State, Hacking, Digital Forgery, Cyber Stalking/Harassment, Cyber Pornography, Identity Theft & Fraud, Cyber terrorism, Cyber Defamation, Different offences under IT Act, 2000

Unit-4 Dispute in Cyberspace (12 h)

Dispute Resolution in Cyberspace 1. Concept of Jurisdiction 2. Indian Context of Jurisdiction and IT Act, 2000. 3. International Law and Jurisdictional Issues in Cyberspace. 4. Dispute Resolutions

Unit-5 Ethics and Business (12 h)

Moral & ethical dilemmas. Ethics and Business: A sense of business ethics. Ethics and International Business: Ethics Issues beyond borders. "Current Streams of Thought".

Text Books

1. Satyanarayana.J, E Government: The Science of the Possible, PHI Learning Pvt. Ltd.. (2012)
2. SudhirNaib, The Information Technology Act, 2005: A Handbook, OUP, New York, (2011)

Supplementary Readings

1. Verma S, K, Mittal Raman, Legal Dimensions of Cyber Space, Indian Law Institute, New Delhi, (2004)
2. S. R. Bhansali, Information Technology Act, 2000, University Book House Pvt. Ltd., Jaipur (2003).

3. Vasu Deva, Cyber Crimes and Law Enforcement, Commonwealth Publishers, New Delhi, (2003)

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes							
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8
CO1													L							
CO2																M				
CO3	L																M			
CO4				M										M						
CO5																				H
CO6							M											H		



H
High
Correlation



M
Medium
Correlation



L
Low
Correlation

Learning Objective

The objective of the course is

- 01: understand the basic theory underlying machine learning.
- 02: be able to formulate machine learning problems corresponding to different applications.
- 03: understand a range of machine learning algorithms along with their strengths and weaknesses.
- 04: be able to apply machine learning algorithms to solve problems of moderate complexity.
- 05: apply the algorithms to a real-world problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models.

Course Outcome

After completing this course, the student will be able to

- 01: appreciate the importance of visualization in the data analytics solution
- 02: apply structured thinking to unstructured problems
- 03: understand a very broad collection of machine learning algorithms and problems
- 04: learn algorithmic topics of machine learning and mathematically deep enough to introduce the required theory
- 05: develop an appreciation for what is involved in learning from data.

Unit-1 Introduction (12 h)

Learning Problems – Perspectives and Issues – Concept Learning – Version Spaces and Candidate Eliminations – Inductive bias – Decision Tree learning – Representation – Algorithm – Heuristic Space Search.

Unit-2 Neural Networks and Genetic Algorithms (12 h)

Neural Network Representation – Problems – Perceptrons – Multilayer Networks and Back Propagation Algorithms – Advanced Topics – Genetic Algorithms – Hypothesis Space Search – Genetic Programming – Models of Evaluation and Learning.

Unit-3 Bayesian and Computational Learning (12 h)

Bayes Theorem – Concept Learning – Maximum Likelihood – Minimum Description Length Principle – Bayes Optimal Classifier – Gibbs Algorithm – Naïve Bayes Classifier – Bayesian Belief Network – EM Algorithm – Probability Learning – Sample Complexity – Finite and Infinite Hypothesis Spaces – Mistake Bound Model.

Unit-4 Instant Based Learning (12 h)

K- Nearest Neighbour Learning – Locally weighted Regression – Radial Bases Functions – Case Based Learning.

UNIT-5 Advanced Learning (12 h)

Learning Sets of Rules – Sequential Covering Algorithm – Learning Rule Set – First Order Rules – Sets of First Order Rules – Induction on Inverted Deduction – Inverting Resolution – Analytical Learning – Perfect Domain Theories – Explanation Base Learning – FOCL Algorithm – Reinforcement Learning – Task – Q-Learning – Temporal Difference Learning. “Current Streams of Thought”.

Text Books

1. Marco Gori , *Machine Learning: A Constraint-Based Approach*, Morgan Kaufmann. 2017
2. Ethem Alpaydin, *Machine Learning: The New AI*, MIT Press-2016

Supplementary Readings

1. Ryszard S. Michalski, Jaime G. Carbonell and Tom M. Mitchell, *Machine Learning: An Artificial Intelligence Approach, Volume 1*, Elsevier. 2014
2. *Machine Learning: An Algorithmic Perspective*, Stephen Marsland, Taylor & Francis 2009

3. Machine Learning – Tom M. Mitchell, - MGH 2009

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes								
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8	
CO1	L												L								
CO2														M							
CO3		M											M								
CO4											H							H			
CO5																			H		
CO6		M																			H

H High Correlation

M Medium Correlation

L Low Correlation

Learning Objectives

The Objective of this course is

- LO1. To assess blockchain applications in a structured manner.
- LO2. To impart knowledge in block chain techniques and able to present the concepts clearly and structured.
- LO3. To get familiarity with future currencies and to create own crypto token.

Course Outcomes

Upon completion of this course the students will be able to

- CO1. Understand the various technologies and its business use.
- CO2. Analyse the block chain applications in a structure manner.
- CO3. Explain the modern concepts of block chain technology systematically.
- CO4. Handle the cryptocurrency.
- CO5. Understand the modern currencies and its market usage.

Unit-I : Basic Concepts- No. of Hours - 12

Introduction - Decentralized society - Disturbed Database, Byzantine General problem - Fault tolerance, Hadoop Distributed File System, Distributed Hash Table, ASIC resistance, Turing Complete - P2P network - Private key - Public key - Cryptography - Hash Function - Digital Signature - ECDSA - Memory Hard Algorithm - Zero Knowledge Proof.

Unit-II : Block Chain - No. of Hours – 12

Introduction - Advantage over conventional distributed database - Network and protocols - Block chain network - Mining - Mechanism - Life Cycle of Block chain - Distributed consensus - Merkle Patricia Tree - Gas Limit - Transactions and Fee - Anonymity - Reward - Chain policy- Life of Block chain applications -Soft and Hard Fork - Private and Public blockchain.

Unit-III : Distributed Consensus - No. of Hours - 12

Nakamoto consensus - Proof of work - Proof of Stake - Proof of Burn - Difficulty level - Sybil Attack - Energy Utilization and alternate - Fabric model - SDKs - Components of Fabric Model - Architecture of Hyperledger fabric.

Unit-IV: Cryptocurrency - No. of Hours - 12

History - Distributed ledger - Bitcoin protocols - Mining strategy and rewards - Ethereum - construction - Truffle - DAO - dApps - Smart Contract - Boot strapping - GHOST Vulnerability - Attacks - Sidechain - Namecoin.

Unit-V : Cryptocurrency Regulations - No. of Hours - 12

Stakeholders - Roots and Bitcoin - Legal Aspects - Crypto currency exchange - Black market and Global economy. Applications : IoT - Medical Record Management system - Domain Name Service and future of Blockchain - Business applications and assessing blockchain projects.

Text Books

1. Daniel Drescher, Block chain basics A non-technical introduction in 25 steps, Apress , 2017.
2. Paul Vigna & Michael J. Casey, The Age of Cryptocurrency, 2015.

Supplementary Readings

1. Antonopoulos, Mastering Bitcoin : Unlocking Digital Cryptocurrencies.
2. Satoshi Nakamoto, Bitcoin : A peer-to-peer electronic Cash system.
3. Mastering Blockchain - Imar Bashir - Second edition - Packt - 2018.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes								
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8	
CO1	L												L								
CO2														M							
CO3		M											M								
CO4											H								H		
CO5																				H	

H High Correlation

M Medium Correlation

L Low Correlation

Learning Objectives

The objective of this course is

- LO1 : Understand the basic concept of sustainable management the environmental, social and economic dimensions.
- LO2 : Know the history of the sustainable development idea.
- LO3 : Be able to discuss the conflicts which are involved in the SD concept on the national as well as on the global scale.
- LO4 : Be familiar with potential strategic options for SD (efficiency, sufficiency).
- LO5 : Be able to discuss the (dis-) advantages of instruments for SD.
- LO6 : Understand the SD challenge for companies their responsibility and their potentials for action.

Course Outcomes

Upon completion of the course students will be able to

- CO1 Further develop the ability of students to integrate and make autonomous use of their knowledge to sustain the environment.
- CO2 Develop the students ability to deal with complex phenomena, issues and situations of sustainable development.
- CO3 Develop the students potential towards, sustain the environment for professional activities that demand considerable autonomy or for research and development work.
- CO4 Develop the ability of students to integrate various management concepts and procedures to sustain the environment with minimum cost.
- CO5 Understand the role of corporate in environment sustainability.
- CO6 Understand the role of various national and international organisation in sustainable development.

Unit-I: Introduction Fundamentals of Environment (14 h)

Status of environment - Environmental, social and economical issues - Need for sustainability - Nine ways to achieve sustainability - Linkage between population, resources, development and environment.

Unit -II Sustainable Concept (10 h)

Concept of sustainability - factors governing sustainable development-linkages among sustainable development - Environment and poverty - Determinants of sustainable development.

Unit - III Sustainable Development Goals (10h)

UN sustainable development goals -causes and potential consequences of climate change and their relationship to SDG. Environmental finance - Eco marketing - green advertisement - organic products - issues in marketing of organic products - Eco -tourism - Natural resource conservation and management.

Unit – IV Organisational Social Responsibility (12hr)

Corporate / Organisation Social Responsibility - sustainability strategy development - management tools for sustainable development - sustainable / ethical investment accounts - sustainable product development and design - conflict between farming and the environment.

Unit – V Organisations in SD (14 h)

Environmental impact assessment - participants in environmental management - approaches to environmental management - approaches to environmental management - emerging environmental issues - Role of international organisations, national and local governments, environmental organisation industry and commerce and non-government organisation.

Text Books

1. "Sustainable Development: Linking Economy, Society, Environment" by Tracey Strange and Anne Bayley, Himalaya Publication, Mumbai 2004.

- "Innovation for Sustainable Development" by Jean - Yves Grosclaude and Rajendra K. Pachauri , Sultan Chand & Sons, New Delhi, 2011.

Supplementary Readings

- "Engineering Applications in Sustainable Design and Development" by Bradley Striebi, New Delhi, Prentice Hall of India, 2003.
- "Ecology and Sustainable Development" by P.S. Ramakrishnan, Sultan Chand & Sons, New Delhi, 2013.
- "Management of Resources for Sustainable Development" by Sushma Goel, PHI Learning, New Delhi, 2008.

Outcome Mapping

PO/CO	Programme Outcomes												Programme Specific Outcomes								
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	PSO 8	
CO1	L						M						L								
CO2														M							
CO3		M											M								
CO4											H								H		
CO5								M													H



H
High Correlation



M
Medium Correlation



L
Low Correlation

ASSESSMENT PATTERN
Continuous Internal Evaluation (25 Marks)

Bloom's Category Marks (out of 25)	Test	Assignment	Seminar	Non CIA		
				Activities	Industrial Visit	Quiz
Knowledge	√					√
Comprehension	√	√	√		√	√
Apply			√	√		
Analyze	√					√
Evaluate	√					
Create	√		√	√		

End Semester Examination (75 Marks)

Bloom's Category Marks	Test (75 Marks)
Knowledge	
Comprehension	
Application	
Analysis	
Synthesis	
Evaluation	
Creation	