



CURRICULUM FOR

“MASTER OF

BUSINESS ADMINISTRATION (MBA)”

w.e.f. Academic Year 2021-'22

॥ तमसो मा ज्योतिर्गमय ॥

VISION

To provide equal opportunities for value based global education for creating an Enlightened Society

MISSION

To establish and facilitate educational institutions in the region for providing affordable value based global education to all who aspire to study and to create opportunities to educators, social workers and philanthropists to serve society



**SARVAJANIK
UNIVERSITY**

INCLUSIVE | INTEGRATED | INNOVATIVE

creating an enlightened society...

UNIVERSITY OFFICE

Dr. R. K. Desai Marg, Athwalines,
Surat-395001, Gujarat, India.

Website: www.sarvajanikuniversity.ac.in

Email: admin@sarvajanikuniversity.ac.in

Email: info@sarvajanikuniversity.ac.in

Mo.: +919979102021 / +9197129 30321

Contact No .+912612660266



Constituent Institute:

**S. R. LUTHRA INSTITUTE OF
MANAGEMENT
(SRLIM)**





Course Curriculum
Master of Business Administration

The Course Curriculum for Master of Business Administration (Sem I & II) proposed and drafted by Academic and Curriculum Committee of Management (MBA) under the Faculty of Management in the meeting held on 10-12-2021 and recommended to 'BOARD OF STUDIES' for approval.

Prof. Ravi Vaidya
Chairman, Academic
& Curriculum Committee
Management (MBA)

Place of the meeting
Sarvajanik University Office


Sign

The proposed Course Curriculum was approved by Board of Studies, Management under the Faculty of Management in the meeting held on 10-12-2021 and was recommended to the 'FACULTY' for approval.

Prof. Jimmy Kapadia
Chairman,
Board of Studies -
Management

Place of the meeting
Sarvajanik University Office


Sign

The Course Curriculum approved by the Faculty of Management in the meeting held on 10-12-2021 and was recommended to 'ACADEMIC COUNCIL' for approval.

Prof. Jimmy Kapadia
Chairman &
Dean,
Faculty of Management

Place of the meeting
Sarvajanik University Office


Sign

The Course Curriculum approved by the 'Academic Council of Sarvajani University' in the meeting held on 10-12-2021.

Prof. Persi Engineer
Chairman, Academic Council
& Hon'ble Provost,
Sarvajanik University

Place of the meeting
Sarvajanik University Office


Sign

- The approved curriculum (MBA - Sem I & II) is with effect from the Academic year 2021-22 and to be reviewed before 2024 - '25

M.B.A.

CURRICULUM



Sarvajanik University
S. R. Luthra Institute of Management
M.B.A. Program

Course Classification Matrix

Sr. No.	Broad Course Classification	Course Category	Course Description
1	Professional Core Courses	Core Course (CC)	A course related to the parent discipline / department.
		Industry Exposure (IE)	Major project work
		Liberal Studies & Life Skills	Prepare for the world of work by providing them with an invaluable set of employability skills, including the ability to think for themselves, the skills to communicate effectively, and the capacity for lifelong learning.
2	Domain / Technical Courses	Foundation Course (FC)	A basic understanding of fields that are crucial in the MBA programme.
		Marketing Specialization	A course related to the specialization chosen, mandatory.
		Finance Specialization	A course related to the specialization chosen, mandatory.
		Human Resource Specialization	A course related to the specialization chosen, mandatory.
		Functional Elective	Accelerate the understanding and deepen the knowledge in the functional area
3	Elective Courses	Sectorial Elective	Apply knowledge and skills within and across industries and sectors.
		Trans disciplinary Open Elective	Fostering collaborative knowledge creation across fields that would not necessarily occur in traditional, single-discipline courses and empowering students to create new solutions to industry and societal issues.
4	Professional Ability Enhancement Compulsory Courses (PAECC)		Provides the opportunity and knowledge to develop and strengthen the necessary skills to gain, maintain, and advance in a chosen area.



Coding for Types of Courses:

Sr. No.	Course Category	Course identifier
1	Liberal Studies and Life Skills (LSLS)	0 (Zero)
2	Core Course (CC)	1
3	Foundation Course (FC)	2
4	Marketing Specialization Course	3
5	Finance Specialization Course	4
6	Human Resource Specialization Course	5
7	Functional Elective (FE)	6
8	Sectoral Elective (SE)	7
9	Transdisciplinary Open Elective (TOE)	8
10	Professional Ability Enhancement Compulsory Courses (PAECC)	9
11	Industry Exposure (IE)	X



S. R. Luthra Institute of Management
Master of Business Administration (M.B.A.) Program
Teaching Scheme - Curriculum

MBA SEMESTER - 1 (WITH EFFECT FROM ACADEMIC YEAR 2021-22 ONWARDS)

Course Category	Course Code	Course	SE	ME	CE	V	TOTAL MARKS	CREDITS
LSLS	MGMB10100	Office Automation Skills	50	-	-	-	50*	0
FC	MGMB12101	Accounting for Managers (AFM)	50	30	40	-	120	4
CC	MGMB11102	Business Ethics and Corporate Governance (BECG)	50	30	40	-	120	4
FC	MGMB12103	Business Statistics (BS)	50	30	40	-	120	4
FC	MGMB12104	Information Systems & Business Analytics (ISBA)	50	30	40	-	120	4
PAECC	MGMB19105	Managerial Communications (MC)	50	30	40	-	120	4
CC	MGMB11106	Managerial Economics (ME)	50	30	40	-	120	4
CC	MGMB11107	Organizational Behaviour (OB)	50	30	40	-	120	4
TOE	MGMB18108	Transdisciplinary Open Elective (TOE)	50	-	-	-	50*	0
							840	28

MBA SEMESTER - 2 (WITH EFFECT FROM ACADEMIC YEAR 2021-22 ONWARDS)

Course Category	Course Code	Course	SE	ME	CE	V	TOTAL MARKS	CREDITS
LSLS	MGMB10200	Professional Grooming	50	-	-	-	50*	0
PAECC	MGMB19201	Business Research (BR)	50	30	40	-	120	4
FC	MGMB12202	Corporate Finance (CF)	50	30	40	-	120	4
CC	MGMB11203	Entrepreneurship (Ent)	50	30	40	-	120	4
FC	MGMB12204	Human Resource Management (HRM)	50	30	40	-	120	4
CC	MGMB11205	International Business (IB)	50	30	40	-	120	4
FC	MGMB12206	Marketing Management (MM)	50	30	40	-	120	4
FC	MGMB12207	Production & Operations Management (POM)	50	30	40	-	120	4
TOE	MGMB18108	Transdisciplinary Open Elective (TOE)	50	-	-	-	50*	0
							840	28

CC - Core Course

FC - Foundation Course

LSLS - Liberal Studies and Life Skills

PAECC - Professional Ability Enhancement Compulsory Courses

TOE - Transdisciplinary Open Elective

* The marksheet shall only reflect Pass / Fail (P / F) for LSLS and TOE subjects. The marks shall not be counted in final marks.



Sarvajani Education Society
S. R. Luthra Institute of Management
 Master of Business Administration (M.B.A.) Program
 Teaching Scheme - Curriculum

MBA SEMESTER - 3 (With effect from Academic Year 2021-22 Onwards)									
Course Category	Course Code	Course	SE	ME	CE	V	TOTAL MARKS	CREDITS	
L.SLS	MGMB10300	Social Skills	50	-	-	-	50*	0	
IE:	MGMB1X301	Summer Internship Project (SIP)	-	-	100	100	200	6	
IE:	MGMB1X302	Multidisciplinary Action Project (MAP)	-	-	100	100	200	4	
CC	MGMB11303	Strategic Management (SM)	50	30	40	-	120	4	
Elective (Functional) - FE	MGMB16301	Behavioural Finance (BF)	50	30	40	-	120	4	
	MGMB16302	Digital and Social Media Marketing (DSMM)	50	30	40	-	120	4	
	MGMB16303	Operations Research (OR)	50	30	40	-	120	4	
	MGMB16304	Social Security Regulations (SSL)	50	30	40	-	120	4	
Elective (Sectoral) - SE	MGMB17301	Financial Markets and Services (FMS)	50	30	40	-	120	4	
	MGMB17302	Management of Industrial Relations and Labour Laws (MIRLL)	50	30	40	-	120	4	
	MGMB17303	Retailing & Franchising (R & F)	50	30	40	-	120	4	
	MGMB13301	Consumer Behaviour (CB)	50	30	40	-	120	4	
Functional Areas Specialization - SC	MGMB13302	Integrated Marketing Communications (IMC)	50	30	40	-	120	4	
	MGMB13303	Sales and Distribution Management (SDM)	50	30	40	-	120	4	
	MGMB14301	Financial Derivatives (FD)	50	30	40	-	120	4	
Human Resource Management	MGMB14302	Insurance and Risk Management (IRM)	50	30	40	-	120	4	
	MGMB14303	Security Analysis & Portfolio Management (SAPM)	50	30	40	-	120	4	
	MGMB15301	Change Management and Organization Development (CMOD)	50	30	40	-	120	4	
	MGMB15302	Compensation Management (CM)	50	30	40	-	120	4	
	MGMB15303	Human Resource Audit (HRA)	50	30	40	-	120	4	
TOTAL MARKS & CREDITS OF SEMESTER 3							1120	34	

IE - Industry Exposure

CC - Core Course

L.SLS - Liberal Studies and Life Skills

* The marksheet shall only reflect Pass / Fail (P / F) for L.SLS subjects. The marks shall not be counted in final marks.



Sarvajanik Education Society
S. R. Luthra Institute of Management
 Master of Business Administration (M.B.A.) Program
 Teaching Scheme - Curriculum

MBA SEMESTER - 4 (With effect from Academic Year 2021-22 Onwards)										
Course Category	Course Code	Course	SE	ME	CE	V	TOTAL MARKS	CREDITS		
LSLS	MGMB10400	Legal and Environmental Awareness	50	-	-	-	50*	0		
	MGMB1X401	Comprehensive Project (CP)	-	-	100	100	200	6		
IE	MGMB16401	Competency Mapping (CMP)	50	30	40	-	120	4		
	MGMB16402	Customer Relationship Management (CRM)	50	30	40	-	120	4		
	MGMB16403	Financial Planning & Taxation (FPT)	50	30	40	-	120	4		
	MGMB16404	Fintech (FT)	50	30	40	-	120	4		
Elective (Functional) - FE	MGMB17401	Banking (BN)	50	30	40	-	120	4		
	MGMB17402	HR in Service Sector (HRSS)	50	30	50	-	120	4		
	MGMB17403	Logistics and Supply Chain Management (LSCM)	50	30	50	-	120	4		
Elective (Sectoral) - SE	MGMB13401	Brand Management (BM)	50	30	50	-	120	4		
	MGMB13402	Services Marketing (SRM)	50	30	50	-	120	4		
Functional Areas	MGMB14401	Financial Analysis and Modelling (FAM)	50	30	40	-	120	4		
	MGMB14402	International Finance (IF)	50	30	40	-	120	4		
Specialization - SC	MGMB15401	Designing HRD Systems (DHRDS)	50	30	40	-	120	4		
	MGMB15402	Performance Management (PM)	50	30	40	-	120	4		
TOTAL MARKS & CREDITS OF SEMESTER 4								680	22	
TOTAL MARKS & CREDITS OF MBA PROGRAM								3480	112	

IE - Industry Exposure

LSLS - Liberal Studies and Life Skills

* The marksheet shall only reflect Pass / Fail (P / F) for LSLS subjects. The marks shall not be counted in final marks.



SEMESTER - 1



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Accounting for Managers (AFM)	Subject Code:	MGMB12101
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

Course Overview:

This course provides an introduction to accounting practices that are necessary for a manager to excel in with a focus analytical aspect of accounting. Upon completion of this course, you will be able to:

- Understand financial statements.
- Apply different tools for analysing financial statements.
- Understand the basics of cost accounting.

This course explores financial, managerial and cost accounting. The lecture sessions introduce you to accounting principles, preparation and analysis of financial and cost statements. The practical sessions shall give an opportunity to apply the various accounting tools on real time financial statements.

Course concepts are illustrated primarily through lectures and for each topic we shall have numerical exercises. The numerical exercises are complemented with application of key concepts. You will have a chance to illustrate your ability to apply the framework in this course through class discussion, numerical exercises, assignments and mid-term, final exams.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	<i>Compile</i> Financial Statements and Cost Statements from business transaction information.
LO2	<i>Analyse and evaluate</i> financial performance of firms from Financial Statements.
LO3	<i>Analyze</i> cost-volume-profit technique to determine optimal managerial decisions.
LO4	<i>Appraise</i> financial statements and present them effectively to aid the management in decision making.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Accounting for Managers (AFM)	Subject Code:	MGMB12101
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	2	1	2	-	1	2	1
LO2	2	3	2	-	2	2	2	1
LO3	3	3	2	-	-	-	2	-
LO4	2	3	3	-	2	-	2	1

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	Introduction to Accounting <ul style="list-style-type: none"> Basics of Accounting (Concept of Accounting; Difference between Financial Accounting, Cost Accounting, Management Accounting; Basic terms: Assets, Liability, Income and expenses; Generally Accepted Accounting Principles) Accounting Process (Conceptual Clarity of Journal entries, ledger accounts, Trial Balance) Basic understanding of IFRS, AS, IND AS Introduction to Forensic Accounting and Carbon Accounting Depreciation (Meaning and techniques: SLM and WDV Method) 	1	10	12
II	Preparation of Financial Statements: <ul style="list-style-type: none"> Preparation of Corporate Profit & Loss A/c 	1,2	12	14



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Accounting for Managers (AFM)	Subject Code:	MGMB12101
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> • Preparation of Corporate Balance Sheet • Preparation of Cash Flow Statement 			
III	Financial Statement Analysis: <ul style="list-style-type: none"> • Ratio analysis • Comparative Financial Statements • Common Sized Statements • Trend Analysis 	2, 4	8	12
IV	Cost Accounting: <ul style="list-style-type: none"> • Introduction to cost concepts (Meaning of cost, cost concept and classification) • Preparation of Unit Cost Sheet • Marginal Costing and Cost Volume Profit analysis • Short term decision making (Selling price decisions, Make or buy decisions, Sales mix decisions, Selection of suitable method of production, Plant shut down decision) 	1, 3	10	12

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, seminars, paper presentations, role plays, class participation, etc.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Accounting for Managers (AFM)	Subject Code:	MGMB12101
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	V. Rajasekaran & R. Lalitha	Financial Accounting	Pearson (Latest Edition)
2	Ambrish Gupta	Financial Accounting for Management	Pearson (Latest Edition)
3	M.Y. Khan & P.K. Jain	Management Accounting	McGraw Hill (Latest Edition)
4	P. C. Tulsian	Financial Accounting	Pearson (Latest Edition)
5	M. N. Arora	A Textbook of Cost and Management Accounting	Vikas (Latest Edition)
6	Paresh Shah	Management Accounting	Oxford Higher Education (Latest Edition)

Newspapers / Magazines / Journals:

- The Chartered Accountant
- The Management Accountant



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Accounting for Managers (AFM)	Subject Code:	MGMB12101
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

- The Chartered Secretary
- Journal of Finance

Web resources:

- Websites pertaining to companies.
- Business India / Business Today / Business World
- Business Standard/Economic Times/Financial Times/ Financial Express



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Ethics and Corporate Governance (BECG)	Subject Code:	MGMB11102
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

Course Overview:

The aim of the course is -

- To provide students with tools for recognizing and responding to ethical issues, both personally and organizationally.
- To encourage students to develop a deep understanding of the innumerable challenges surrounding corporate accountability and corporate governance.
- To engage them at an individual level through analyses of both positive and negative examples of everyday conduct in business.
- To improve analytical problem solving and ethical decision-making skills.
- To acquire the skills of matching corporate governance decisions and a company's strategy, alongside taking ethical and reasonable decisions with social responsibility.

Course concepts are illustrated primarily through lectures and for each topic we discuss one or two cases. The cases are complemented with readings that further elaborate on key concepts. You will have a chance to illustrate your ability to apply the framework in this course through case discussion, case write-ups, and mid-term, final exams.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	<i>Evaluate</i> the range of ethical issues that arise in business and the theories that are used to model these issues and demonstrate an ability to propose solutions to those issues.
LO2	Develop professional communication abilities, both verbal and written, to imbibe robust moral values to build and monitor systems that have strong internal mechanisms to prevent corporate frauds.
LO3	Assess the theory of corporate governance and apply them in analysing corporate structures, board composition and how boards of directors conduct their affairs.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Ethics and Corporate Governance (BECG)	Subject Code:	MGMB11102
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

LO4	Design a framework for effective corporate governance by understanding the role and responsibility of different stakeholders in large corporates and how their interplay results in alternate governance structures in different countries.
LO5	Develop competency to raise the accountability of corporations towards its stakeholders and society to create an integrated value framework for sustainability.
LO6	Demonstrate detailed knowledge of Corporate Social Responsibility and the accountability of business corporations beyond profit maximization.

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	3	-	1	1	2	-	2
LO2	-	3	3	-	2	2	-	2
LO3	3	3	1	1	-	1	-	1
LO4	2	1	-	3	-	2	2	1
LO5	1	1	2	1	3	2	1	2
LO6	2	1	2	3	3	3	3	2

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	Introduction to Business Ethics: <ul style="list-style-type: none"> • Nature of Business Ethics <ul style="list-style-type: none"> ○ Meaning, Need and Importance. 	1,2,6	10	13



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Ethics and Corporate Governance (BECG)	Subject Code:	MGMB11102
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> ○ Ethical Concepts and Theories impacting business environment- <ul style="list-style-type: none"> ▪ Concepts: Honesty, Integrity, Justice, Equality, and Respect ▪ Theories: Deontology, Utilitarianism, Rights, and Virtue ● Morals and Values in Business <ul style="list-style-type: none"> ○ Differentiate between Ethics, Morals, and Values. ○ Moral Values in Business <ul style="list-style-type: none"> ▪ Accountable, Transparent, Openness, Quality, Profitability, Efficiency, Reliability, And Customer Service ○ Influence of Moralities in Business Operations <ul style="list-style-type: none"> ▪ Meta, Normative and Descriptive ▪ The Triple Bottom Line - People, Planet, Profit. 			
II	<p>Managerial Ethics:</p> <ul style="list-style-type: none"> ● Ethics and Management Practices <ul style="list-style-type: none"> ○ various aspects of management and operations, including human resources, marketing, research, and development, and even the corporate mission. ○ Corporate Ethical Leadership ● Enforcement of Ethical Guidelines and Standards <ul style="list-style-type: none"> ○ Code of ethics ○ Ethical Problems-Dilemma at Work - Sources and Resolutions ● Whistle Blowing ● Overview of Creative Accounting-Its role in business scandals 	1,2,5	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Ethics and Corporate Governance (BECG)	Subject Code:	MGMB11102
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

III	<p>Corporate Governance: <i>Overview of Corporate Governance:</i></p> <ul style="list-style-type: none"> • Difference between Governance and Management. • Purpose of Good Governance • Potential Consequence of poor CG. • Theories of Corporate Governance <ul style="list-style-type: none"> ○ Agency Theory ○ Stewardship Theory ○ Stakeholder Theory • Governance risk and Financial Stability <ul style="list-style-type: none"> - The balancing of conflicting objectives. <p><i>Indian Scenario:</i></p> <ul style="list-style-type: none"> • Sarbanes Oxley Act of 2002 • Kumar Mangalam Birla Committee (2000) • Naresh Chandra Committee • Reports and recommendations of Narayan Murthy • Ganguly Committees • Uday Kotak Committee <p><i>Key Issues in CG:</i></p> <ul style="list-style-type: none"> • Role and composition of the board, remuneration of directors and senior executives • Rights and responsibilities of shareholders • Ownership of independent directors 	1,2,3,4,5	13
		10	
IV	<p>Corporate Social Responsibility (CSR)</p> <ul style="list-style-type: none"> • Introduction to CSR <ul style="list-style-type: none"> ○ What is CSR, why it matters and How it impacts business? ○ Levels of CSR • CG and CSR Practices in India. • Corporate Governance Rating (National and International) <ul style="list-style-type: none"> ○ CGR agencies, Process and Relevance 	1,2,4,5,6	12
		10	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Ethics and Corporate Governance (BECG)	Subject Code:	MGMB11102
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, classroom activities, seminars, article presentations, role plays, class participation, etc.

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Business Ethics and Corporate Governance	Murthy C.S.V.	Latest Edition, Himalaya Publishing
2	Business Ethics: An Indian Perspective	A.C. Fernando	Latest Edition, Pearson



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Ethics and Corporate Governance (BECG)	Subject Code:	MGMB11102
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

3	Ethics in Business and Corporate Governance	S K Mandal	Latest Edition, Tata McGraw Hill
---	---	------------	----------------------------------

Additional Readings:

1	Business Ethics: Readings and Cases in Corporate Morality	W. Michael Hoffman (Editor), Robert E. Frederick (Editor) & Mark S. Schwartz	Wiley Blackwell
2	Street-Smart Ethics: Succeeding in Business without Selling Your Soul (https://www.google.co.in/books/edition/Street_Smart_Ethics/-aF1BwAAQBAJ?hl=en&gbpv=1&printsec=frontcover)	Clinton W. McLemore	Westminster John Nox Press

Newspapers / Magazines / Journals:

Business and Society Review

Ethics Unwrapped Videos: <https://ethicsunwrapped.utexas.edu/>

A collection of 130+ videos and 80 + case studies designed to talk about business ethics.

Web resources:

1. A Guide to the Big Ideas and Debates in Corporate Governance by Lynn S. Paine and Suraj Srinivasan, October 14, 2019
<https://hbr.org/2019/10/a-guide-to-the-big-ideas-and-debates-in-corporate-governance>



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Statistics (BS)	Subject Code:	MGMB12103
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

Course Overview:

This course provides a brief idea about the descriptive and inferential measures of the data and its application in real life and business world. Upon successful completion of the course, one is equipped with

- Understanding of the data presentation and descriptive measures
- Clarity about the probability and its application
- Knowledge of formulation of statistical hypothesis, calculation and business decision making using inferential techniques

This course not only elaborate the concepts of statistical tools to be used for business decision making but also empowers the user with gaining real world understanding about the same. The lecture sessions introduce you to established concepts, techniques, and frameworks to approach business problems using statistical tools. The practice sessions cover the usage of appropriate statistical technique & software to find statistical value and improve your business decision skills.

Course concepts are illustrated primarily through lectures and for each topic two to three business and social situations are considered. Furthermore, the practice session provides you with an opportunity to use statistical software to get the results and interpret the same with a view of business decision making. Learners will have an opportunity showcase their ability to apply the gathered knowledge through module test, software proficiency test, result interpretation test

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	Ability to summarize, graphical depiction, interpretation and presentation
LO2	Apply concepts of probability and probability distributions to various business problems
LO3	Use inferential statistics (manual calculation and use of statistical software) as a tool for statistical decision making
LO4	Ability to design experiments and analyse variance for business situations
LO5	Use statistical software for multivariate data analysis and interpret the results



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Statistics (BS)	Subject Code:	MGMB12103
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	2	1	3	----	----	----	----	----
LO2	2	3	----	----	----	3	1	1
LO3	2	3	----	----	----	----	2	----
LO4	2	3	----	----	----	----	3	----
LO5	2	3	----	----	----	----	1	----

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	<p>Introduction to Business Statistics</p> <ul style="list-style-type: none"> • Introduction, application and limitation of Statistics in Business • Types of data – Nominal, Ordinal, Interval, Ratio • Graphs and Charts – <i>Using Statistical Software</i> <p>UNIVARIATE DATA ANALYSIS</p> <p>Descriptive Statistics</p> <ul style="list-style-type: none"> • Measures of Central Tendency: Mean, Median and Mode (For Grouped and Ungrouped Data) – <i>Manual calculation and Use of Statistical Software</i> • Measures of Variability: Range, Standard Deviation and Coefficient of 	1, 4	10	14



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Statistics (BS)	Subject Code:	MGMB12103
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

	<p>Variation (For Grouped and Ungrouped Data) – <i>Manual calculation and Use of Statistical Software</i></p> <p>Probability and Probability Distribution</p> <ul style="list-style-type: none"> • Methods of Assigning Probability • Conditional Probability • BAYES' Theorem • Discrete Probability Distribution: Binomial, Poisson Distribution - <i>Manual calculation and Use of Statistical Software</i> 			
II	<p>Probability and Probability Distribution</p> <ul style="list-style-type: none"> • Continuous Probability Distribution: Normal Distribution - <i>Manual calculation and Use of Statistical Software</i> <p>Inferential Statistics</p> <ul style="list-style-type: none"> • Types of hypothesis – research, statistical, substantive • Null and alternative hypothesis • One-tailed & Two-tailed test • Types of Error – Type I & Type II • Level of significance • Steps of hypothesis testing <p>Parametric and Non-Parametric Tests</p> <ul style="list-style-type: none"> • Z test (Mean and Proportion – for Single and Two Populations) - <i>Manual calculation and Use of Statistical</i> 	2	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Statistics (BS)	Subject Code:	MGMB12103
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

	<p><i>Software</i></p> <ul style="list-style-type: none"> • t – test (Mean – For Single and Two Populations, Paired t - test) - <i>Manual calculation and Use of Statistical Software</i> • F – test - <i>Manual calculation and Use of Statistical Software</i> • Chi-Square Goodness of fit test for uniform distribution - <i>Manual calculation and Use of Statistical Software</i> • Chi-Square test of Independence - <i>Manual calculation and Use of Statistical Software</i> • Non-Parametric Tests: Mann-Whitney U test, Wilcoxon Sign Paired Rank Test, Kruskal-Wallis – <i>Using Statistical Software</i> 			
III	<p>Analysis of Variance and Design of Experiments</p> <ul style="list-style-type: none"> • One Way ANOVA - <i>Manual calculation and Use of Statistical Software</i> • Multiple Comparison Tests – <i>Using Statistical Software</i> • The Randomized Block Design – <i>Using Statistical Software</i> • A Factorial Design (Two Way ANOVA) – <i>Using Statistical Software</i> 	3, 4	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Statistics (BS)	Subject Code:	MGMB12103
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

	BIVARIATE DATA ANALYSIS <ul style="list-style-type: none"> • Correlation (Pearson's Coefficient of Correlation) - <i>Manual calculation and Use of Statistical Software</i> • Simple Linear Regression - <i>Manual calculation and Use of Statistical Software</i> 			
IV	MULTIVARIATE DATA ANALYSIS – <i>Using Statistical Software</i> <ul style="list-style-type: none"> • Factor Analysis • Assessment of Reliability (Cronbach's alpha) • Multiple Regression • Multidimensional Scaling 	4	10	12

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) – Formative	40 marks
1. Class Presence and participation	10 Marks
2. Real life implication of concepts	10 Marks
3. Module Test	15 Marks
4. Class Quiz	10 Marks
Mid – semester Exam (M) – Formative	30 marks
1. Software proficiency test	5 Marks
2. Decision making ability test	10 Marks
3. Viva-voce	15 Marks

Course Materials:

Reference Books:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Statistics (BS)	Subject Code:	MGMB12103
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Business Statistics for Contemporary Decision making	Ken Black	Wiley - Latest Edition
2	Statistics for Management	Richard I. Levin and David S. Rubin	Pearson - Latest Edition
3	Statistics for Managers	D. P. Apte	Excel - Latest Edition
4	Business Statistics	Sanjiv Jaggia, Alison Kelly	McGraw Hill - Latest Edition
5	Business Statistics	Gerald Keller & Hitesh Arora	Cengage - Latest Edition
6	Business Statistics	Joseph Francis	Cengage - Latest Edition
7	Statistics for Management	T. N. Srivastava and Shailaja Rego	TMH – Latest Edition

Newspapers / Magazines / Journals:

1. Journal of Indian Business Research
2. International Journal of Statistics and Analysis
3. Sankhya – Indian Journal of Statistics
4. Economic Times
5. Financial Express
6. Business Standard
7. Economic & Political Weekly
8. Vikalpa



SARVAJANIK UNIVERSITY

MBA – SEM I

BUSINESS STATISTICS

STATISTICAL FORMULA



1. Descriptive Statistics:

Population mean (ungrouped)	$\mu = \frac{\sum x_i}{N}$
Sample mean (ungrouped)	$\bar{x} = \frac{\sum x_i}{n}$
Grouped Mean	$\mu_{\text{grouped}} = \frac{\sum f_i M_i}{N}$
Grouped Median	$\text{Median} = L + \frac{\frac{N}{2} - c f_p}{f_{\text{med}}}(W)$
Population standard deviation (ungrouped)	$\sigma = \sqrt{\sigma^2} \qquad \sigma = \sqrt{\frac{\sum (x_i - \mu)^2}{N}}$ $\sigma = \sqrt{\frac{\sum x_i^2 - \frac{(\sum x_i)^2}{N}}{N}} \qquad \sigma = \sqrt{\frac{\sum x_i^2 - N\mu^2}{N}}$
Population variance (ungrouped)	$\sigma^2 = \frac{\sum (x_i - \mu)^2}{N}$ $\sigma^2 = \frac{\sum x_i^2 - \frac{(\sum x_i)^2}{N}}{N}$ $\sigma^2 = \frac{\sum x_i^2 - N\mu^2}{N}$
Population variance (grouped)	$\sigma^2 = \frac{\sum f_i (M_i - \mu)^2}{N} = \frac{\sum f_i M_i^2 - \frac{(\sum f_i M_i)^2}{N}}{N}$
Population standard deviation (grouped)	$\sigma = \sqrt{\frac{\sum f_i (M_i - \mu)^2}{N}} = \sqrt{\frac{\sum f_i M_i^2 - \frac{(\sum f_i M_i)^2}{N}}{N}}$
Sample variance	$s^2 = \frac{\sum (x_i - \bar{x})^2}{n-1} = \frac{\sum x_i^2 - \frac{(\sum x_i)^2}{n}}{n-1} = \frac{\sum x_i^2 - n(\bar{x})^2}{n-1}$



Sample Standard deviation	$s = \sqrt{s^2} = \sqrt{\frac{\sum(x_i - \bar{x})^2}{n-1}} = \sqrt{\frac{\sum x_i^2 - \frac{(\sum x_i)^2}{n}}{n-1}}$ $= \sqrt{\frac{\sum x_i^2 - n(\bar{x})^2}{n-1}}$
Coefficient of variation	$CV = \frac{\sigma}{\mu} 100$
Sample variance (grouped)	$s^2 = \frac{\sum(M_i - \bar{x})^2}{n-1} = \frac{\sum f_i M_i^2 - \frac{(\sum f_i M_i)^2}{N}}{n-1}$
Sample standard deviation (grouped)	$s = \sqrt{\frac{\sum(M_i - \bar{x})^2}{n-1}} = \sqrt{\frac{\sum f_i M_i^2 - \frac{(\sum f_i M_i)^2}{N}}{n-1}}$

2. Probability:

Law of conditional probability	$P(X Y) = \frac{P(X \cap Y)}{P(Y)} = \frac{P(X) \times P(Y X)}{P(Y)}$
Bayes Rule	$P(X_i Y) = \frac{P(X_i) \times P(Y X_i)}{P(X_1) \times P(Y X_1) + P(X_2) \times P(Y X_2) + \dots + P(X_n) \times P(Y X_n)}$

3. Probability Distribution:

Poisson formula	$P(x) = \frac{\lambda^x e^{-\lambda}}{x!}$
Binomial formula	$\binom{n}{x} \times p^x \times q^{n-x} = \frac{n!}{x!(n-x)!} \times p^x \times q^{n-x}$
z formula	$z = \frac{x - \mu}{\frac{\sigma}{\sqrt{n}}}$

4. Parametric tests:

z test for a single mean	$z = \frac{\bar{x} - \mu}{\frac{\sigma}{\sqrt{n}}}$
--------------------------	---



z test for a population proportion	$z = \frac{\hat{p} - p}{\sqrt{\frac{p \times q}{n}}}$
t test for a single mean	$t = \frac{\bar{x} - \mu}{\frac{s}{\sqrt{n}}}, df = n - 1$
z test for the difference in two independent sample means	$z = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$
t test for two independent sample means, and population variances unknown but assumed to be equal (assume also that the two populations are normally distributed)	$t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{\frac{s_1^2(n_1 - 1) + s_2^2(n_2 - 1)}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}}, df = n_1 + n_2 - 2$
t test for difference in two related samples (the differences are normally distributed in the population)	$t = \frac{\bar{d}}{\frac{s_d}{\sqrt{n}}}; df = n - 1, \quad \bar{d} = \frac{\sum d}{n}, s_d = \sqrt{\frac{\sum (d - \bar{d})^2}{n - 1}} = \sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{n}}{n - 1}}$
z formula for testing the difference in population proportions	$z = \frac{(\hat{p}_1 - \hat{p}_2)}{\sqrt{(\bar{p} \times \bar{q}) \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \text{ where } \bar{p} = \frac{x_1 + x_2}{n_1 + n_2} = \frac{n_1 \hat{p}_1 + n_2 \hat{p}_2}{n_1 + n_2}, \bar{q} = 1 - \bar{p}$
F test for two population variances (assume the two populations are normally distributed)	$F = \frac{s_1^2}{s_2^2} \quad df_{\text{numerator}} = v_1 = n_1 - 1, df_{\text{denominator}} = v_2 = n_2 - 1$
Formula for determining the critical value for the lower-tail F	$F_{1-\alpha, v_2, v_1} = \frac{1}{F_{\alpha, v_1, v_2}}$
Pearson's Product moment correlation coefficient	$r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{\sum (x - \bar{x})^2 \sum (y - \bar{y})^2}} = \frac{\sum xy - \frac{(\sum x \sum y)}{n}}{\sqrt{\left[\sum x^2 - \frac{(\sum x)^2}{n} \right] \left[\sum y^2 - \frac{(\sum y)^2}{n} \right]}}$
Equation of the simple regression line	$\hat{y} = \beta_0 + \beta_1 x$
Sum of Squares	



$SS_{xx} = \sum x^2 - \frac{(\sum x)^2}{n}, SS_{yy} = \sum y^2 - \frac{(\sum y)^2}{n}, SS_{xy} = \sum xy - \frac{\sum x \sum y}{n}$	
Slope of the regression line $b_1 = \frac{\sum(x - \bar{x})(y - \bar{y})}{\sum(x - \bar{x})^2} = \frac{\sum xy - n\bar{x}\bar{y}}{\sum x^2 - n\bar{x}^2} = \frac{\sum xy - \frac{(\sum x)(\sum y)}{n}}{\sum x^2 - \frac{(\sum x)^2}{n}}$	
y-intercept of the regression line $b_0 = \bar{y} - b_1\bar{x} = \frac{\sum y}{n} - b_1 \frac{(\sum x)}{n}$	
Sum of squares of error $SSE = \sum(y - \hat{y})^2 = \sum y^2 - b_0 \sum y - b_1 \sum xy$	
Standard error of the estimate $s_e = \sqrt{\frac{SSE}{n-2}}$	
Coefficient of determination $r^2 = 1 - \frac{SSE}{SS_{yy}} = 1 - \frac{SSE}{\sum y^2 - \frac{(\sum y)^2}{n}}$	
One Way ANOVA $SSC = \sum \left(\frac{T_j^2}{n_j} \right) - \left(\frac{T^2}{N} \right)$ $SST = \text{Total of Square of Each Observation} - \left(\frac{T^2}{N} \right)$ $df_c = C - 1, df_E = N - C, df_T = N - 1$ $MSC = \frac{SSC}{df_c}, MSE = \frac{SSE}{df_E}, F = \frac{MSC}{MSE}$	

5. Non-parametric tests:

Chi-square goodness of fit	$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}, df = k - 1$
Chi-square test of independence	$\chi^2 = \sum \sum \frac{(f_o - f_e)^2}{f_e}, df = (r - 1)(c - 1)$



SARVAJANIK UNIVERSITY

MBA

BUSINESS STATISTICS

TABLES



TABLE 1

**Binomial Probability
Distribution**

<i>n</i> 1									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.900	.800	.700	.600	.500	.400	.300	.200	.100
1	.100	.200	.300	.400	.500	.600	.700	.800	.900

<i>n</i> 2									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.810	.640	.490	.360	.250	.160	.090	.040	.010
1	.180	.320	.420	.480	.500	.480	.420	.320	.180
2	.010	.040	.090	.160	.250	.360	.490	.640	.810

<i>n</i> 3									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.729	.512	.343	.216	.125	.064	.027	.008	.001
1	.243	.384	.441	.432	.375	.288	.189	.096	.027
2	.027	.096	.189	.288	.375	.432	.441	.384	.243
3	.001	.008	.027	.064	.125	.216	.343	.512	.729

<i>n</i> 4									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.656	.410	.240	.130	.063	.026	.008	.002	.000
1	.292	.410	.412	.346	.250	.154	.076	.026	.004
2	.049	.154	.265	.346	.375	.346	.265	.154	.049
3	.004	.026	.076	.154	.250	.346	.412	.410	.292
4	.000	.002	.008	.026	.063	.130	.240	.410	.656

<i>n</i> 5									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.590	.328	.168	.078	.031	.010	.002	.000	.000
1	.328	.410	.360	.259	.156	.077	.028	.006	.000
2	.073	.205	.309	.346	.313	.230	.132	.051	.008
3	.008	.051	.132	.230	.313	.346	.309	.205	.073
4	.000	.006	.028	.077	.156	.259	.360	.410	.328
5	.000	.000	.002	.010	.031	.078	.168	.328	.590

<i>n</i> 6									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.531	.262	.118	.047	.016	.004	.001	.000	.000
1	.354	.393	.303	.187	.094	.037	.010	.002	.000
2	.098	.246	.324	.311	.234	.138	.060	.015	.001
3	.015	.082	.185	.276	.313	.276	.185	.082	.015
4	.001	.015	.060	.138	.234	.311	.324	.246	.098
5	.000	.002	.010	.037	.094	.187	.303	.393	.354
6	.000	.000	.001	.004	.016	.047	.118	.262	.531

(Continued)



TABLE 1

Binomial Probability
Distribution (Continued)

		$n = 7$							
x	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.478	.210	.082	.028	.008	.002	.000	.000	.000
1	.372	.367	.247	.131	.055	.017	.004	.000	.000
2	.124	.275	.318	.261	.164	.077	.025	.004	.000
3	.023	.115	.227	.290	.273	.194	.097	.029	.003
4	.003	.029	.097	.194	.273	.290	.227	.115	.023
5	.000	.004	.025	.077	.164	.261	.318	.275	.124
6	.000	.000	.004	.017	.055	.131	.247	.367	.372
7	.000	.000	.000	.002	.008	.028	.082	.210	.478

		$n = 8$							
x	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.430	.168	.058	.017	.004	.001	.000	.000	.000
1	.383	.336	.198	.090	.031	.008	.001	.000	.000
2	.149	.294	.296	.209	.109	.041	.010	.001	.000
3	.033	.147	.254	.279	.219	.124	.047	.009	.000
4	.005	.046	.136	.232	.273	.232	.136	.046	.005
5	.000	.009	.047	.124	.219	.279	.254	.147	.033
6	.000	.001	.010	.041	.109	.209	.296	.294	.149
7	.000	.000	.001	.008	.031	.090	.198	.336	.383
8	.000	.000	.000	.001	.004	.017	.058	.168	.430

		$n = 9$							
x	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.387	.134	.040	.010	.002	.000	.000	.000	.000
1	.387	.302	.156	.060	.018	.004	.000	.000	.000
2	.172	.302	.267	.161	.070	.021	.004	.000	.000
3	.045	.176	.267	.251	.164	.074	.021	.003	.000
4	.007	.066	.172	.251	.246	.167	.074	.017	.001
5	.001	.017	.074	.167	.246	.251	.172	.066	.007
6	.000	.003	.021	.074	.164	.251	.267	.176	.045
7	.000	.000	.004	.021	.070	.161	.267	.302	.172
8	.000	.000	.000	.004	.018	.060	.156	.302	.387
9	.000	.000	.000	.000	.002	.010	.040	.134	.387

		$n = 10$							
x	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.349	.107	.028	.006	.001	.000	.000	.000	.000
1	.387	.268	.121	.040	.010	.002	.000	.000	.000
2	.194	.302	.233	.121	.044	.011	.001	.000	.000
3	.057	.201	.267	.215	.117	.042	.009	.001	.000
4	.011	.088	.200	.251	.205	.111	.037	.006	.000
5	.001	.026	.103	.201	.246	.201	.103	.026	.001
6	.000	.006	.037	.111	.205	.251	.200	.088	.011
7	.000	.001	.009	.042	.117	.215	.267	.201	.057
8	.000	.000	.001	.011	.044	.121	.233	.302	.194
9	.000	.000	.000	.002	.010	.040	.121	.268	.387
10	.000	.000	.000	.000	.001	.006	.028	.107	.349



TABLE I
Binomial Probability
Distribution (Continued)

<i>n</i> 11									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.314	.086	.020	.004	.000	.000	.000	.000	.000
1	.384	.236	.093	.027	.005	.001	.000	.000	.000
2	.213	.295	.200	.089	.027	.005	.001	.000	.000
3	.071	.221	.257	.177	.081	.023	.004	.000	.000
4	.016	.111	.220	.236	.161	.070	.017	.002	.000
5	.002	.039	.132	.221	.226	.147	.057	.010	.000
6	.000	.010	.057	.147	.226	.221	.132	.039	.002
7	.000	.002	.017	.070	.161	.236	.220	.111	.016
8	.000	.000	.004	.023	.081	.177	.257	.221	.071
9	.000	.000	.001	.005	.027	.089	.200	.295	.213
10	.000	.000	.000	.001	.005	.027	.093	.236	.384
11	.000	.000	.000	.000	.000	.004	.020	.086	.314

<i>n</i> 12									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.282	.069	.014	.002	.000	.000	.000	.000	.000
1	.377	.206	.071	.017	.003	.000	.000	.000	.000
2	.230	.283	.168	.064	.016	.002	.000	.000	.000
3	.085	.236	.240	.142	.054	.012	.001	.000	.000
4	.021	.133	.231	.213	.121	.042	.008	.001	.000
5	.004	.053	.158	.227	.193	.101	.029	.003	.000
6	.000	.016	.079	.177	.226	.177	.079	.016	.000
7	.000	.003	.029	.101	.193	.227	.158	.053	.004
8	.000	.001	.008	.042	.121	.213	.231	.133	.021
9	.000	.000	.001	.012	.054	.142	.240	.236	.085
10	.000	.000	.000	.002	.016	.064	.168	.283	.230
11	.000	.000	.000	.000	.003	.017	.071	.206	.377
12	.000	.000	.000	.000	.000	.002	.014	.069	.282

<i>n</i> 13									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.254	.055	.010	.001	.000	.000	.000	.000	.000
1	.367	.179	.054	.011	.002	.000	.000	.000	.000
2	.245	.268	.139	.045	.010	.001	.000	.000	.000
3	.100	.246	.218	.111	.035	.006	.001	.000	.000
4	.028	.154	.234	.184	.087	.024	.003	.000	.000
5	.006	.069	.180	.221	.157	.066	.014	.001	.000
6	.001	.023	.103	.197	.209	.131	.044	.006	.000
7	.000	.006	.044	.131	.209	.197	.103	.023	.001
8	.000	.001	.014	.066	.157	.221	.180	.069	.006
9	.000	.000	.003	.024	.087	.184	.234	.154	.028
10	.000	.000	.001	.006	.035	.111	.218	.246	.100
11	.000	.000	.000	.001	.010	.045	.139	.268	.245
12	.000	.000	.000	.000	.002	.011	.054	.179	.367
13	.000	.000	.000	.000	.000	.001	.010	.055	.254

(Continued)



TABLE 1

Binomial Probability
Distribution (Continued)

<i>n</i> 14									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.229	.044	.007	.001	.000	.000	.000	.000	.000
1	.356	.154	.041	.007	.001	.000	.000	.000	.000
2	.257	.250	.113	.032	.006	.001	.000	.000	.000
3	.114	.250	.194	.085	.022	.003	.000	.000	.000
4	.035	.172	.229	.155	.061	.014	.001	.000	.000
5	.008	.086	.196	.207	.122	.041	.007	.000	.000
6	.001	.032	.126	.207	.183	.092	.023	.002	.000
7	.000	.009	.062	.157	.209	.157	.062	.009	.000
8	.000	.002	.023	.092	.183	.207	.126	.032	.001
9	.000	.000	.007	.041	.122	.207	.196	.086	.008
10	.000	.000	.001	.014	.061	.155	.229	.172	.035
11	.000	.000	.000	.003	.022	.085	.194	.250	.114
12	.000	.000	.000	.001	.006	.032	.113	.250	.257
13	.000	.000	.000	.000	.001	.007	.041	.154	.356
14	.000	.000	.000	.000	.000	.001	.007	.044	.229

<i>n</i> 15									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.206	.035	.005	.000	.000	.000	.000	.000	.000
1	.343	.132	.031	.005	.000	.000	.000	.000	.000
2	.267	.231	.092	.022	.003	.000	.000	.000	.000
3	.129	.250	.170	.063	.014	.002	.000	.000	.000
4	.043	.188	.219	.127	.042	.007	.001	.000	.000
5	.010	.103	.206	.186	.092	.024	.003	.000	.000
6	.002	.043	.147	.207	.153	.061	.012	.001	.000
7	.000	.014	.081	.177	.196	.118	.035	.003	.000
8	.000	.003	.035	.118	.196	.177	.081	.014	.000
9	.000	.001	.012	.061	.153	.207	.147	.043	.002
10	.000	.000	.003	.024	.092	.186	.206	.103	.010
11	.000	.000	.001	.007	.042	.127	.219	.188	.043
12	.000	.000	.000	.002	.014	.063	.170	.250	.129
13	.000	.000	.000	.000	.003	.022	.092	.231	.267
14	.000	.000	.000	.000	.000	.005	.031	.132	.343
15	.000	.000	.000	.000	.000	.000	.005	.035	.206



TABLE I
Binomial Probability
Distribution (Continued)

<i>n</i> 16									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.185	.028	.003	.000	.000	.000	.000	.000	.000
1	.329	.113	.023	.003	.000	.000	.000	.000	.000
2	.275	.211	.073	.015	.002	.000	.000	.000	.000
3	.142	.246	.146	.047	.009	.001	.000	.000	.000
4	.051	.200	.204	.101	.028	.004	.000	.000	.000
5	.014	.120	.210	.162	.067	.014	.001	.000	.000
6	.003	.055	.165	.198	.122	.039	.006	.000	.000
7	.000	.020	.101	.189	.175	.084	.019	.001	.000
8	.000	.006	.049	.142	.196	.142	.049	.006	.000
9	.000	.001	.019	.084	.175	.189	.101	.020	.000
10	.000	.000	.006	.039	.122	.198	.165	.055	.003
11	.000	.000	.001	.014	.067	.162	.210	.120	.014
12	.000	.000	.000	.004	.028	.101	.204	.200	.051
13	.000	.000	.000	.001	.009	.047	.146	.246	.142
14	.000	.000	.000	.000	.002	.015	.073	.211	.275
15	.000	.000	.000	.000	.000	.003	.023	.113	.329
16	.000	.000	.000	.000	.000	.000	.003	.028	.185

<i>n</i> 17									
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.167	.023	.002	.000	.000	.000	.000	.000	.000
1	.315	.096	.017	.002	.000	.000	.000	.000	.000
2	.280	.191	.058	.010	.001	.000	.000	.000	.000
3	.156	.239	.125	.034	.005	.000	.000	.000	.000
4	.060	.209	.187	.080	.018	.002	.000	.000	.000
5	.017	.136	.208	.138	.047	.008	.001	.000	.000
6	.004	.068	.178	.184	.094	.024	.003	.000	.000
7	.001	.027	.120	.193	.148	.057	.009	.000	.000
8	.000	.008	.064	.161	.185	.107	.028	.002	.000
9	.000	.002	.028	.107	.185	.161	.064	.008	.000
10	.000	.000	.009	.057	.148	.193	.120	.027	.001
11	.000	.000	.003	.024	.094	.184	.178	.068	.004
12	.000	.000	.001	.008	.047	.138	.208	.136	.017
13	.000	.000	.000	.002	.018	.080	.187	.209	.060
14	.000	.000	.000	.000	.005	.034	.125	.239	.156
15	.000	.000	.000	.000	.001	.010	.058	.191	.280
16	.000	.000	.000	.000	.000	.002	.017	.096	.315
17	.000	.000	.000	.000	.000	.000	.002	.023	.167

(Continued)



TABLE 1

Binomial Probability
Distribution (Continued)

		$n = 18$							
x	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.150	.018	.002	.000	.000	.000	.000	.000	.000
1	.300	.081	.013	.001	.000	.000	.000	.000	.000
2	.284	.172	.046	.007	.001	.000	.000	.000	.000
3	.168	.230	.105	.025	.003	.000	.000	.000	.000
4	.070	.215	.168	.061	.012	.001	.000	.000	.000
5	.022	.151	.202	.115	.033	.004	.000	.000	.000
6	.005	.082	.187	.166	.071	.015	.001	.000	.000
7	.001	.035	.138	.189	.121	.037	.005	.000	.000
8	.000	.012	.081	.173	.167	.077	.015	.001	.000
9	.000	.003	.039	.128	.185	.128	.039	.003	.000
10	.000	.001	.015	.077	.167	.173	.081	.012	.000
11	.000	.000	.005	.037	.121	.189	.138	.035	.001
12	.000	.000	.001	.015	.071	.166	.187	.082	.005
13	.000	.000	.000	.004	.033	.115	.202	.151	.022
14	.000	.000	.000	.001	.012	.061	.168	.215	.070
15	.000	.000	.000	.000	.003	.025	.105	.230	.168
16	.000	.000	.000	.000	.001	.007	.046	.172	.284
17	.000	.000	.000	.000	.000	.001	.013	.081	.300
18	.000	.000	.000	.000	.000	.000	.002	.018	.150

		$n = 19$							
x	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.135	.014	.001	.000	.000	.000	.000	.000	.000
1	.285	.068	.009	.001	.000	.000	.000	.000	.000
2	.285	.154	.036	.005	.000	.000	.000	.000	.000
3	.180	.218	.087	.017	.002	.000	.000	.000	.000
4	.080	.218	.149	.047	.007	.001	.000	.000	.000
5	.027	.164	.192	.093	.022	.002	.000	.000	.000
6	.007	.095	.192	.145	.052	.008	.001	.000	.000
7	.001	.044	.153	.180	.096	.024	.002	.000	.000
8	.000	.017	.098	.180	.144	.053	.008	.000	.000
9	.000	.005	.051	.146	.176	.098	.022	.001	.000
10	.000	.001	.022	.098	.176	.146	.051	.005	.000
11	.000	.000	.008	.053	.144	.180	.098	.017	.000
12	.000	.000	.002	.024	.096	.180	.153	.044	.001
13	.000	.000	.001	.008	.052	.145	.192	.095	.007
14	.000	.000	.000	.002	.022	.093	.192	.164	.027
15	.000	.000	.000	.001	.007	.047	.149	.218	.080
16	.000	.000	.000	.000	.002	.017	.087	.218	.180
17	.000	.000	.000	.000	.000	.005	.036	.154	.285
18	.000	.000	.000	.000	.000	.001	.009	.068	.285
19	.000	.000	.000	.000	.000	.000	.001	.014	.135



TABLE 1
Binomial Probability
Distribution (Continued)

		<i>n</i> 20							
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.122	.012	.001	.000	.000	.000	.000	.000	.000
1	.270	.058	.007	.000	.000	.000	.000	.000	.000
2	.285	.137	.028	.003	.000	.000	.000	.000	.000
3	.190	.205	.072	.012	.001	.000	.000	.000	.000
4	.090	.218	.130	.035	.005	.000	.000	.000	.000
5	.032	.175	.179	.075	.015	.001	.000	.000	.000
6	.009	.109	.192	.124	.037	.005	.000	.000	.000
7	.002	.055	.164	.166	.074	.015	.001	.000	.000
8	.000	.022	.114	.180	.120	.035	.004	.000	.000
9	.000	.007	.065	.160	.160	.071	.012	.000	.000
10	.000	.002	.031	.117	.176	.117	.031	.002	.000
11	.000	.000	.012	.071	.160	.160	.065	.007	.000
12	.000	.000	.004	.035	.120	.180	.114	.022	.000
13	.000	.000	.001	.015	.074	.166	.164	.055	.002
14	.000	.000	.000	.005	.037	.124	.192	.109	.009
15	.000	.000	.000	.001	.015	.075	.179	.175	.032
16	.000	.000	.000	.000	.005	.035	.130	.218	.090
17	.000	.000	.000	.000	.001	.012	.072	.205	.190
18	.000	.000	.000	.000	.000	.003	.028	.137	.285
19	.000	.000	.000	.000	.000	.000	.007	.058	.270
20	.000	.000	.000	.000	.000	.000	.001	.012	.122

		<i>n</i> 25							
<i>x</i>	Probability								
	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	.072	.004	.000	.000	.000	.000	.000	.000	.000
1	.199	.024	.001	.000	.000	.000	.000	.000	.000
2	.266	.071	.007	.000	.000	.000	.000	.000	.000
3	.226	.136	.024	.002	.000	.000	.000	.000	.000
4	.138	.187	.057	.007	.000	.000	.000	.000	.000
5	.065	.196	.103	.020	.002	.000	.000	.000	.000
6	.024	.163	.147	.044	.005	.000	.000	.000	.000
7	.007	.111	.171	.080	.014	.001	.000	.000	.000
8	.002	.062	.165	.120	.032	.003	.000	.000	.000
9	.000	.029	.134	.151	.061	.009	.000	.000	.000
10	.000	.012	.092	.161	.097	.021	.001	.000	.000
11	.000	.004	.054	.147	.133	.043	.004	.000	.000
12	.000	.001	.027	.114	.155	.076	.011	.000	.000
13	.000	.000	.011	.076	.155	.114	.027	.001	.000
14	.000	.000	.004	.043	.133	.147	.054	.004	.000
15	.000	.000	.001	.021	.097	.161	.092	.012	.000
16	.000	.000	.000	.009	.061	.151	.134	.029	.000
17	.000	.000	.000	.003	.032	.120	.165	.062	.002
18	.000	.000	.000	.001	.014	.080	.171	.111	.007
19	.000	.000	.000	.000	.005	.044	.147	.163	.024
20	.000	.000	.000	.000	.002	.020	.103	.196	.065
21	.000	.000	.000	.000	.000	.007	.057	.187	.138
22	.000	.000	.000	.000	.000	.002	.024	.136	.226
23	.000	.000	.000	.000	.000	.000	.007	.071	.266
24	.000	.000	.000	.000	.000	.000	.001	.024	.199
25	.000	.000	.000	.000	.000	.000	.000	.004	.072



TABLE 2

Poisson Probabilities

		L									
x	.005	.01	.02	.03	.04	.05	.06	.07	.08	.09	
0	.9950	.9900	.9802	.9704	.9608	.9512	.9418	.9324	.9231	.9139	
1	.0050	.0099	.0196	.0291	.0384	.0476	.0565	.0653	.0738	.0823	
2	.0000	.0000	.0002	.0004	.0008	.0012	.0017	.0023	.0030	.0037	
3	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0001	.0001	
x	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	
0	.9048	.8187	.7408	.6703	.6065	.5488	.4966	.4493	.4066	.3679	
1	.0905	.1637	.2222	.2681	.3033	.3293	.3476	.3595	.3659	.3679	
2	.0045	.0164	.0333	.0536	.0758	.0988	.1217	.1438	.1647	.1839	
3	.0002	.0011	.0033	.0072	.0126	.0198	.0284	.0383	.0494	.0613	
4	.0000	.0001	.0003	.0007	.0016	.0030	.0050	.0077	.0111	.0153	
5	.0000	.0000	.0000	.0001	.0002	.0004	.0007	.0012	.0020	.0031	
6	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0002	.0003	.0005	
7	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	
x	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	
0	.3329	.3012	.2725	.2466	.2231	.2019	.1827	.1653	.1496	.1353	
1	.3662	.3614	.3543	.3452	.3347	.3230	.3106	.2975	.2842	.2707	
2	.2014	.2169	.2303	.2417	.2510	.2584	.2640	.2678	.2700	.2707	
3	.0738	.0867	.0998	.1128	.1255	.1378	.1496	.1607	.1710	.1804	
4	.0203	.0260	.0324	.0395	.0471	.0551	.0636	.0723	.0812	.0902	
5	.0045	.0062	.0084	.0111	.0141	.0176	.0216	.0260	.0309	.0361	
6	.0008	.0012	.0018	.0026	.0035	.0047	.0061	.0078	.0098	.0120	
7	.0001	.0002	.0003	.0005	.0008	.0011	.0015	.0020	.0027	.0034	
8	.0000	.0000	.0001	.0001	.0001	.0002	.0003	.0005	.0006	.0009	
9	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0001	.0001	.0002	
x	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	
0	.1225	.1108	.1003	.0907	.0821	.0743	.0672	.0608	.0550	.0498	
1	.2572	.2438	.2306	.2177	.2052	.1931	.1815	.1703	.1596	.1494	
2	.2700	.2681	.2652	.2613	.2565	.2510	.2450	.2384	.2314	.2240	
3	.1890	.1966	.2033	.2090	.2138	.2176	.2205	.2225	.2237	.2240	
4	.0992	.1082	.1169	.1254	.1336	.1414	.1488	.1557	.1622	.1680	
5	.0417	.0476	.0538	.0602	.0668	.0735	.0804	.0872	.0940	.1008	
6	.0146	.0174	.0206	.0241	.0278	.0319	.0362	.0407	.0455	.0504	
7	.0044	.0055	.0068	.0083	.0099	.0118	.0139	.0163	.0188	.0216	
8	.0011	.0015	.0019	.0025	.0031	.0038	.0047	.0057	.0068	.0081	
9	.0003	.0004	.0005	.0007	.0009	.0011	.0014	.0018	.0022	.0027	
10	.0001	.0001	.0001	.0002	.0002	.0003	.0004	.0005	.0006	.0008	
11	.0000	.0000	.0000	.0000	.0000	.0001	.0001	.0001	.0002	.0002	
12	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	



TABLE 2
Poisson Probabilities
(Continued)

		L									
x	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	
0	.0450	.0408	.0369	.0334	.0302	.0273	.0247	.0224	.0202	.0183	
1	.1397	.1304	.1217	.1135	.1057	.0984	.0915	.0850	.0789	.0733	
2	.2165	.2087	.2008	.1929	.1850	.1771	.1692	.1615	.1539	.1465	
3	.2237	.2226	.2209	.2186	.2158	.2125	.2087	.2046	.2001	.1954	
4	.1733	.1781	.1823	.1858	.1888	.1912	.1931	.1944	.1951	.1954	
5	.1075	.1140	.1203	.1264	.1322	.1377	.1429	.1477	.1522	.1563	
6	.0555	.0608	.0662	.0716	.0771	.0826	.0881	.0936	.0989	.1042	
7	.0246	.0278	.0312	.0348	.0385	.0425	.0466	.0508	.0551	.0595	
8	.0095	.0111	.0129	.0148	.0169	.0191	.0215	.0241	.0269	.0298	
9	.0033	.0040	.0047	.0056	.0066	.0076	.0089	.0102	.0116	.0132	
10	.0010	.0013	.0016	.0019	.0023	.0028	.0033	.0039	.0045	.0053	
11	.0003	.0004	.0005	.0006	.0007	.0009	.0011	.0013	.0016	.0019	
12	.0001	.0001	.0001	.0002	.0002	.0003	.0003	.0004	.0005	.0006	
13	.0000	.0000	.0000	.0000	.0001	.0001	.0001	.0001	.0002	.0002	
14	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	

x	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
0	.0166	.0150	.0136	.0123	.0111	.0101	.0091	.0082	.0074	.0067
1	.0679	.0630	.0583	.0540	.0500	.0462	.0427	.0395	.0365	.0337
2	.1393	.1323	.1254	.1188	.1125	.1063	.1005	.0948	.0894	.0842
3	.1904	.1852	.1798	.1743	.1687	.1631	.1574	.1517	.1460	.1404
4	.1951	.1944	.1933	.1917	.1898	.1875	.1849	.1820	.1789	.1755
5	.1600	.1633	.1662	.1687	.1708	.1725	.1738	.1747	.1753	.1755
6	.1093	.1143	.1191	.1237	.1281	.1323	.1362	.1398	.1432	.1462
7	.0640	.0686	.0732	.0778	.0824	.0869	.0914	.0959	.1002	.1044
8	.0328	.0360	.0393	.0428	.0463	.0500	.0537	.0575	.0614	.0653
9	.0150	.0168	.0188	.0209	.0232	.0255	.0281	.0307	.0334	.0363
10	.0061	.0071	.0081	.0092	.0104	.0118	.0132	.0147	.0164	.0181
11	.0023	.0027	.0032	.0037	.0043	.0049	.0056	.0064	.0073	.0082
12	.0008	.0009	.0011	.0013	.0016	.0019	.0022	.0026	.0030	.0034
13	.0002	.0003	.0004	.0005	.0006	.0007	.0008	.0009	.0011	.0013
14	.0001	.0001	.0001	.0001	.0002	.0002	.0003	.0003	.0004	.0005
15	.0000	.0000	.0000	.0000	.0001	.0001	.0001	.0001	.0001	.0002

(Continued)



TABLE 2
Poisson Probabilities
(Continued)

		L									
x	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	
0	.0061	.0055	.0050	.0045	.0041	.0037	.0033	.0030	.0027	.0025	
1	.0311	.0287	.0265	.0244	.0225	.0207	.0191	.0176	.0162	.0149	
2	.0793	.0746	.0701	.0659	.0618	.0580	.0544	.0509	.0477	.0446	
3	.1348	.1293	.1239	.1185	.1133	.1082	.1033	.0985	.0938	.0892	
4	.1719	.1681	.1641	.1600	.1558	.1515	.1472	.1428	.1383	.1339	
5	.1753	.1748	.1740	.1728	.1714	.1697	.1678	.1656	.1632	.1606	
6	.1490	.1515	.1537	.1555	.1571	.1584	.1594	.1601	.1605	.1606	
7	.1086	.1125	.1163	.1200	.1234	.1267	.1298	.1326	.1353	.1377	
8	.0692	.0731	.0771	.0810	.0849	.0887	.0925	.0962	.0998	.1033	
9	.0392	.0423	.0454	.0486	.0519	.0552	.0586	.0620	.0654	.0688	
10	.0200	.0220	.0241	.0262	.0285	.0309	.0334	.0359	.0386	.0413	
11	.0093	.0104	.0116	.0129	.0143	.0157	.0173	.0190	.0207	.0225	
12	.0039	.0045	.0051	.0058	.0065	.0073	.0082	.0092	.0102	.0113	
13	.0015	.0018	.0021	.0024	.0028	.0032	.0036	.0041	.0046	.0052	
14	.0006	.0007	.0008	.0009	.0011	.0013	.0015	.0017	.0019	.0022	
15	.0002	.0002	.0003	.0003	.0004	.0005	.0006	.0007	.0008	.0009	
16	.0001	.0001	.0001	.0001	.0001	.0002	.0002	.0002	.0003	.0003	
17	.0000	.0000	.0000	.0000	.0000	.0001	.0001	.0001	.0001	.0001	

x	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0
0	.0022	.0020	.0018	.0017	.0015	.0014	.0012	.0011	.0010	.0009
1	.0137	.0126	.0116	.0106	.0098	.0090	.0082	.0076	.0070	.0064
2	.0417	.0390	.0364	.0340	.0318	.0296	.0276	.0258	.0240	.0223
3	.0848	.0806	.0765	.0726	.0688	.0652	.0617	.0584	.0552	.0521
4	.1294	.1249	.1205	.1162	.1118	.1076	.1034	.0992	.0952	.0912
5	.1579	.1549	.1519	.1487	.1454	.1420	.1385	.1349	.1314	.1277
6	.1605	.1601	.1595	.1586	.1575	.1562	.1546	.1529	.1511	.1490
7	.1399	.1418	.1435	.1450	.1462	.1472	.1480	.1486	.1489	.1490
8	.1066	.1099	.1130	.1160	.1188	.1215	.1240	.1263	.1284	.1304
9	.0723	.0757	.0791	.0825	.0858	.0891	.0923	.0954	.0985	.1014
10	.0441	.0469	.0498	.0528	.0558	.0588	.0618	.0649	.0679	.0710
11	.0244	.0265	.0285	.0307	.0330	.0353	.0377	.0401	.0426	.0452
12	.0124	.0137	.0150	.0164	.0179	.0194	.0210	.0227	.0245	.0263
13	.0058	.0065	.0073	.0081	.0089	.0099	.0108	.0119	.0130	.0142
14	.0025	.0029	.0033	.0037	.0041	.0046	.0052	.0058	.0064	.0071
15	.0010	.0012	.0014	.0016	.0018	.0020	.0023	.0026	.0029	.0033
16	.0004	.0005	.0005	.0006	.0007	.0008	.0010	.0011	.0013	.0014
17	.0001	.0002	.0002	.0002	.0003	.0003	.0004	.0004	.0005	.0006
18	.0000	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0002	.0002
19	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0001	.0001	.0001



TABLE 2
Poisson Probabilities
(Continued)

		L									
x	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	
0	.0008	.0007	.0007	.0006	.0006	.0005	.0005	.0004	.0004	.0003	
1	.0059	.0054	.0049	.0045	.0041	.0038	.0035	.0032	.0029	.0027	
2	.0208	.0194	.0180	.0167	.0156	.0145	.0134	.0125	.0116	.0107	
3	.0492	.0464	.0438	.0413	.0389	.0366	.0345	.0324	.0305	.0286	
4	.0874	.0836	.0799	.0764	.0729	.0696	.0663	.0632	.0602	.0573	
5	.1241	.1204	.1167	.1130	.1094	.1057	.1021	.0986	.0951	.0916	
6	.1468	.1445	.1420	.1394	.1367	.1339	.1311	.1282	.1252	.1221	
7	.1489	.1486	.1481	.1474	.1465	.1454	.1442	.1428	.1413	.1396	
8	.1321	.1337	.1351	.1363	.1373	.1381	.1388	.1392	.1395	.1396	
9	.1042	.1070	.1096	.1121	.1144	.1167	.1187	.1207	.1224	.1241	
10	.0740	.0770	.0800	.0829	.0858	.0887	.0914	.0941	.0967	.0993	
11	.0478	.0504	.0531	.0558	.0585	.0613	.0640	.0667	.0695	.0722	
12	.0283	.0303	.0323	.0344	.0366	.0388	.0411	.0434	.0457	.0481	
13	.0154	.0168	.0181	.0196	.0211	.0227	.0243	.0260	.0278	.0296	
14	.0078	.0086	.0095	.0104	.0113	.0123	.0134	.0145	.0157	.0169	
15	.0037	.0041	.0046	.0051	.0057	.0062	.0069	.0075	.0083	.0090	
16	.0016	.0019	.0021	.0024	.0026	.0030	.0033	.0037	.0041	.0045	
17	.0007	.0008	.0009	.0010	.0012	.0013	.0015	.0017	.0019	.0021	
18	.0003	.0003	.0004	.0004	.0005	.0006	.0006	.0007	.0008	.0009	
19	.0001	.0001	.0001	.0002	.0002	.0002	.0003	.0003	.0003	.0004	
20	.0000	.0000	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0002	
21	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0001	

x	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
0	.0003	.0003	.0002	.0002	.0002	.0002	.0002	.0002	.0001	.0001
1	.0025	.0023	.0021	.0019	.0017	.0016	.0014	.0013	.0012	.0011
2	.0100	.0092	.0086	.0079	.0074	.0068	.0063	.0058	.0054	.0050
3	.0269	.0252	.0237	.0222	.0208	.0195	.0183	.0171	.0160	.0150
4	.0544	.0517	.0491	.0466	.0443	.0420	.0398	.0377	.0357	.0337
5	.0882	.0849	.0816	.0784	.0752	.0722	.0692	.0663	.0635	.0607
6	.1191	.1160	.1128	.1097	.1066	.1034	.1003	.0972	.0941	.0911
7	.1378	.1358	.1338	.1317	.1294	.1271	.1247	.1222	.1197	.1171
8	.1395	.1392	.1388	.1382	.1375	.1366	.1356	.1344	.1332	.1318
9	.1256	.1269	.1280	.1290	.1299	.1306	.1311	.1315	.1317	.1318
10	.1017	.1040	.1063	.1084	.1104	.1123	.1140	.1157	.1172	.1186
11	.0749	.0776	.0802	.0828	.0853	.0878	.0902	.0925	.0948	.0970
12	.0505	.0530	.0555	.0579	.0604	.0629	.0654	.0679	.0703	.0728
13	.0315	.0334	.0354	.0374	.0395	.0416	.0438	.0459	.0481	.0504
14	.0182	.0196	.0210	.0225	.0240	.0256	.0272	.0289	.0306	.0324
15	.0098	.0107	.0116	.0126	.0136	.0147	.0158	.0169	.0182	.0194
16	.0050	.0055	.0060	.0066	.0072	.0079	.0086	.0093	.0101	.0109
17	.0024	.0026	.0029	.0033	.0036	.0040	.0044	.0048	.0053	.0058
18	.0011	.0012	.0014	.0015	.0017	.0019	.0021	.0024	.0026	.0029
19	.0005	.0005	.0006	.0007	.0008	.0009	.0010	.0011	.0012	.0014
20	.0002	.0002	.0002	.0003	.0003	.0004	.0004	.0005	.0005	.0006
21	.0001	.0001	.0001	.0001	.0001	.0002	.0002	.0002	.0002	.0003
22	.0000	.0000	.0000	.0000	.0001	.0001	.0001	.0001	.0001	.0001

(Continued)



TABLE 2

Poisson Probabilities
(Continued)

x	L									
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0
0	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0000
1	.0010	.0009	.0009	.0008	.0007	.0007	.0006	.0005	.0005	.0005
2	.0046	.0043	.0040	.0037	.0034	.0031	.0029	.0027	.0025	.0023
3	.0140	.0131	.0123	.0115	.0107	.0100	.0093	.0087	.0081	.0076
4	.0319	.0302	.0285	.0269	.0254	.0240	.0226	.0213	.0201	.0189
5	.0581	.0555	.0530	.0506	.0483	.0460	.0439	.0418	.0398	.0378
6	.0881	.0851	.0822	.0793	.0764	.0736	.0709	.0682	.0656	.0631
7	.1145	.1118	.1091	.1064	.1037	.1010	.0982	.0955	.0928	.0901
8	.1302	.1286	.1269	.1251	.1232	.1212	.1191	.1170	.1148	.1126
9	.1317	.1315	.1311	.1306	.1300	.1293	.1284	.1274	.1263	.1251
10	.1198	.1210	.1219	.1228	.1235	.1241	.1245	.1249	.1250	.1251
11	.0991	.1012	.1031	.1049	.1067	.1083	.1098	.1112	.1125	.1137
12	.0752	.0776	.0799	.0822	.0844	.0866	.0888	.0908	.0928	.0948
13	.0526	.0549	.0572	.0594	.0617	.0640	.0662	.0685	.0707	.0729
14	.0342	.0361	.0380	.0399	.0419	.0439	.0459	.0479	.0500	.0521
15	.0208	.0221	.0235	.0250	.0265	.0281	.0297	.0313	.0330	.0347
16	.0118	.0127	.0137	.0147	.0157	.0168	.0180	.0192	.0204	.0217
17	.0063	.0069	.0075	.0081	.0088	.0095	.0103	.0111	.0119	.0128
18	.0032	.0035	.0039	.0042	.0046	.0051	.0055	.0060	.0065	.0071
19	.0015	.0017	.0019	.0021	.0023	.0026	.0028	.0031	.0034	.0037
20	.0007	.0008	.0009	.0010	.0011	.0012	.0014	.0015	.0017	.0019
21	.0003	.0003	.0004	.0004	.0005	.0006	.0006	.0007	.0008	.0009
22	.0001	.0001	.0002	.0002	.0002	.0002	.0003	.0003	.0004	.0004
23	.0000	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0002
24	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0001	.0001



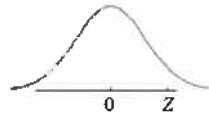
TABLE 3
The e^{-x} Table

x	e^{-x}	x	e^{-x}	x	e^{-x}	x	e^{-x}
0.0	1.0000	3.0	0.0498	6.0	0.00248	9.0	0.00012
0.1	0.9048	3.1	0.0450	6.1	0.00224	9.1	0.00011
0.2	0.8187	3.2	0.0408	6.2	0.00203	9.2	0.00010
0.3	0.7408	3.3	0.0369	6.3	0.00184	9.3	0.00009
0.4	0.6703	3.4	0.0334	6.4	0.00166	9.4	0.00008
0.5	0.6065	3.5	0.0302	6.5	0.00150	9.5	0.00007
0.6	0.5488	3.6	0.0273	6.6	0.00136	9.6	0.00007
0.7	0.4966	3.7	0.0247	6.7	0.00123	9.7	0.00006
0.8	0.4493	3.8	0.0224	6.8	0.00111	9.8	0.00006
0.9	0.4066	3.9	0.0202	6.9	0.00101	9.9	0.00005
1.0	0.3679	4.0	0.0183	7.0	0.00091	10.0	0.00005
1.1	0.3329	4.1	0.0166	7.1	0.00083		
1.2	0.3012	4.2	0.0150	7.2	0.00075		
1.3	0.2725	4.3	0.0136	7.3	0.00068		
1.4	0.2466	4.4	0.0123	7.4	0.00061		
1.5	0.2231	4.5	0.0111	7.5	0.00055		
1.6	0.2019	4.6	0.0101	7.6	0.00050		
1.7	0.1827	4.7	0.0091	7.7	0.00045		
1.8	0.1653	4.8	0.0082	7.8	0.00041		
1.9	0.1496	4.9	0.0074	7.9	0.00037		
2.0	0.1353	5.0	0.0067	8.0	0.00034		
2.1	0.1225	5.1	0.0061	8.1	0.00030		
2.2	0.1108	5.2	0.0055	8.2	0.00027		
2.3	0.1003	5.3	0.0050	8.3	0.00025		
2.4	0.0907	5.4	0.0045	8.4	0.00022		
2.5	0.0821	5.5	0.0041	8.5	0.00020		
2.6	0.0743	5.6	0.0037	8.6	0.00018		
2.7	0.0672	5.7	0.0033	8.7	0.00017		
2.8	0.0608	5.8	0.0030	8.8	0.00015		
2.9	0.0550	5.9	0.0027	8.9	0.00014		



TABLE 4

Areas of the Standard Normal Distribution



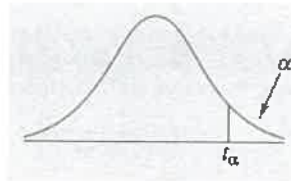
The entries in this table are the probabilities that a standard normal random variable is between 0 and z (the shaded area).

z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	.0000	.0040	.0080	.0120	.0160	.0199	.0239	.0279	.0319	.0359
0.1	.0398	.0438	.0478	.0517	.0557	.0596	.0636	.0675	.0714	.0753
0.2	.0793	.0832	.0871	.0910	.0948	.0987	.1026	.1064	.1103	.1141
0.3	.1179	.1217	.1255	.1293	.1331	.1368	.1406	.1443	.1480	.1517
0.4	.1554	.1591	.1628	.1664	.1700	.1736	.1772	.1808	.1844	.1879
0.5	.1915	.1950	.1985	.2019	.2054	.2088	.2123	.2157	.2190	.2224
0.6	.2257	.2291	.2324	.2357	.2389	.2422	.2454	.2486	.2517	.2549
0.7	.2580	.2611	.2642	.2673	.2704	.2734	.2764	.2794	.2823	.2852
0.8	.2881	.2910	.2939	.2967	.2995	.3023	.3051	.3078	.3106	.3133
0.9	.3159	.3186	.3212	.3238	.3264	.3289	.3315	.3340	.3365	.3389
1.0	.3413	.3438	.3461	.3485	.3508	.3531	.3554	.3577	.3599	.3621
1.1	.3643	.3665	.3686	.3708	.3729	.3749	.3770	.3790	.3810	.3830
1.2	.3849	.3869	.3888	.3907	.3925	.3944	.3962	.3980	.3997	.4015
1.3	.4032	.4049	.4066	.4082	.4099	.4115	.4131	.4147	.4162	.4177
1.4	.4192	.4207	.4222	.4236	.4251	.4265	.4279	.4292	.4306	.4319
1.5	.4332	.4345	.4357	.4370	.4382	.4394	.4406	.4418	.4429	.4441
1.6	.4452	.4463	.4474	.4484	.4495	.4505	.4515	.4525	.4535	.4545
1.7	.4554	.4564	.4573	.4582	.4591	.4599	.4608	.4616	.4625	.4633
1.8	.4641	.4649	.4656	.4664	.4671	.4678	.4686	.4693	.4699	.4706
1.9	.4713	.4719	.4726	.4732	.4738	.4744	.4750	.4756	.4761	.4767
2.0	.4772	.4778	.4783	.4788	.4793	.4798	.4803	.4808	.4812	.4817
2.1	.4821	.4826	.4830	.4834	.4838	.4842	.4846	.4850	.4854	.4857
2.2	.4861	.4864	.4868	.4871	.4875	.4878	.4881	.4884	.4887	.4890
2.3	.4893	.4896	.4898	.4901	.4904	.4906	.4909	.4911	.4913	.4916
2.4	.4918	.4920	.4922	.4925	.4927	.4929	.4931	.4932	.4934	.4936
2.5	.4938	.4940	.4941	.4943	.4945	.4946	.4948	.4949	.4951	.4952
2.6	.4953	.4955	.4956	.4957	.4959	.4960	.4961	.4962	.4963	.4964
2.7	.4965	.4966	.4967	.4968	.4969	.4970	.4971	.4972	.4973	.4974
2.8	.4974	.4975	.4976	.4977	.4977	.4978	.4979	.4979	.4980	.4981
2.9	.4981	.4982	.4982	.4983	.4984	.4984	.4985	.4985	.4986	.4986
3.0	.4987	.4987	.4987	.4988	.4988	.4989	.4989	.4989	.4990	.4990
3.1	.4990	.4991	.4991	.4991	.4992	.4992	.4992	.4992	.4993	.4993
3.2	.4993	.4993	.4994	.4994	.4994	.4994	.4994	.4995	.4995	.4995
3.3	.4995	.4995	.4995	.4996	.4996	.4996	.4996	.4996	.4996	.4997
3.4	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4998
3.5	.4998									
4.0	.49997									
4.5	.499997									
5.0	.4999997									
6.0	.49999999									



TABLE 5

Critical Values from the t Distribution

Values of t_{α} for one-tailed test and $t_{\alpha/2}$ for two-tailed test

df	$t_{.100}$	$t_{.050}$	$t_{.025}$	$t_{.010}$	$t_{.005}$	$t_{.001}$
1	3.078	6.314	12.706	31.821	63.656	318.289
2	1.886	2.920	4.303	6.965	9.925	22.328
3	1.638	2.353	3.182	4.541	5.841	10.214
4	1.533	2.132	2.776	3.747	4.604	7.173
5	1.476	2.015	2.571	3.365	4.032	5.894
6	1.440	1.943	2.447	3.143	3.707	5.208
7	1.415	1.895	2.365	2.998	3.499	4.785
8	1.397	1.860	2.306	2.896	3.355	4.501
9	1.383	1.833	2.262	2.821	3.250	4.297
10	1.372	1.812	2.228	2.764	3.169	4.144
11	1.363	1.796	2.201	2.718	3.106	4.025
12	1.356	1.782	2.179	2.681	3.055	3.930
13	1.350	1.771	2.160	2.650	3.012	3.852
14	1.345	1.761	2.145	2.624	2.977	3.787
15	1.341	1.753	2.131	2.602	2.947	3.733
16	1.337	1.746	2.120	2.583	2.921	3.686
17	1.333	1.740	2.110	2.567	2.898	3.646
18	1.330	1.734	2.101	2.552	2.878	3.610
19	1.328	1.729	2.093	2.539	2.861	3.579
20	1.325	1.725	2.086	2.528	2.845	3.552
21	1.323	1.721	2.080	2.518	2.831	3.527
22	1.321	1.717	2.074	2.508	2.819	3.505
23	1.319	1.714	2.069	2.500	2.807	3.485
24	1.318	1.711	2.064	2.492	2.797	3.467
25	1.316	1.708	2.060	2.485	2.787	3.450
26	1.315	1.706	2.056	2.479	2.779	3.435
27	1.314	1.703	2.052	2.473	2.771	3.421
28	1.313	1.701	2.048	2.467	2.763	3.408
29	1.311	1.699	2.045	2.462	2.756	3.396
30	1.310	1.697	2.042	2.457	2.750	3.385
40	1.303	1.684	2.021	2.423	2.704	3.307
50	1.299	1.676	2.009	2.403	2.678	3.261
60	1.296	1.671	2.000	2.390	2.660	3.232
70	1.294	1.667	1.994	2.381	2.648	3.211
80	1.292	1.664	1.990	2.374	2.639	3.195
90	1.291	1.662	1.987	2.368	2.632	3.183
100	1.290	1.660	1.984	2.364	2.626	3.174
150	1.287	1.655	1.976	2.351	2.609	3.145
200	1.286	1.653	1.972	2.345	2.601	3.131
∞	1.282	1.645	1.960	2.326	2.576	3.090



TABLE 6
Percentage Points of the F Distribution (Continued)

α		$= .05$								
v_1	Numerator Degrees of Freedom									
v_2	1	2	3	4	5	6	7	8	9	
1	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54	
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38	
3	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77	
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68	
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	
10	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02	
11	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90	
12	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80	
13	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71	
14	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65	
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59	
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34	
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32	
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30	
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28	
26	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25	
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24	
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22	
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21	
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12	
60	4.00	3.15	2.76	2.53	2.37	2.25	2.17	2.10	2.04	
120	3.92	3.07	2.68	2.45	2.29	2.18	2.09	2.02	1.96	
∞	3.84	3.00	2.60	2.37	2.21	2.10	2.01	1.94	1.88	



TABLE 6

Percentage Points of the F Distribution (Continued)

10	= .05 α									v_1
	Numerator Degrees of Freedom									
	12	15	20	24	30	40	60	120	q	
241.88	243.90	245.90	248.00	249.10	250.10	251.10	252.20	253.30	254.30	1
19.40	19.41	19.43	19.45	19.45	19.46	19.47	19.48	19.49	19.50	2
8.79	8.74	8.70	8.66	8.64	8.62	8.59	8.57	8.55	8.53	3
5.96	5.91	5.86	5.80	5.77	5.75	5.72	5.69	5.66	5.63	4
4.74	4.68	4.62	4.56	4.53	4.50	4.46	4.43	4.40	4.36	5
4.06	4.00	3.94	3.87	3.84	3.81	3.77	3.74	3.70	3.67	6
3.64	3.57	3.51	3.44	3.41	3.38	3.34	3.30	3.27	3.23	7
3.35	3.28	3.22	3.15	3.12	3.08	3.04	3.01	2.97	2.93	8
3.14	3.07	3.01	2.94	2.90	2.86	2.83	2.79	2.75	2.71	9
2.98	2.91	2.85	2.77	2.74	2.70	2.66	2.62	2.58	2.54	10
2.85	2.79	2.72	2.65	2.61	2.57	2.53	2.49	2.45	2.40	11
2.75	2.69	2.62	2.54	2.51	2.47	2.43	2.38	2.34	2.30	12
2.67	2.60	2.53	2.46	2.42	2.38	2.34	2.30	2.25	2.21	13
2.60	2.53	2.46	2.39	2.35	2.31	2.27	2.22	2.18	2.13	14
2.54	2.48	2.40	2.33	2.29	2.25	2.20	2.16	2.11	2.07	15
2.49	2.42	2.35	2.28	2.24	2.19	2.15	2.11	2.06	2.01	16
2.45	2.38	2.31	2.23	2.19	2.15	2.10	2.06	2.01	1.96	17
2.41	2.34	2.27	2.19	2.15	2.11	2.06	2.02	1.97	1.92	18
2.38	2.31	2.23	2.16	2.11	2.07	2.03	1.98	1.93	1.88	19
2.35	2.28	2.20	2.12	2.08	2.04	1.99	1.95	1.90	1.84	20
2.32	2.25	2.18	2.10	2.05	2.01	1.96	1.92	1.87	1.81	21
2.30	2.23	2.15	2.07	2.03	1.98	1.94	1.89	1.84	1.78	22
2.27	2.20	2.13	2.05	2.01	1.96	1.91	1.86	1.81	1.76	23
2.25	2.18	2.11	2.03	1.98	1.94	1.89	1.84	1.79	1.73	24
2.24	2.16	2.09	2.01	1.96	1.92	1.87	1.82	1.77	1.71	25
2.22	2.15	2.07	1.99	1.95	1.90	1.85	1.80	1.75	1.69	26
2.20	2.13	2.06	1.97	1.93	1.88	1.84	1.79	1.73	1.67	27
2.19	2.12	2.04	1.96	1.91	1.87	1.82	1.77	1.71	1.65	28
2.18	2.10	2.03	1.94	1.90	1.85	1.81	1.75	1.70	1.64	29
2.16	2.09	2.01	1.93	1.89	1.84	1.79	1.74	1.68	1.62	30
2.08	2.00	1.92	1.84	1.79	1.74	1.69	1.64	1.58	1.51	40
1.99	1.92	1.84	1.75	1.70	1.65	1.59	1.53	1.47	1.39	60
1.91	1.83	1.75	1.66	1.61	1.55	1.50	1.43	1.35	1.25	120
1.83	1.75	1.67	1.57	1.52	1.46	1.39	1.32	1.22	1.00	∞

Denominator Degrees of Freedom

(Continued)



TABLE 6

Percentage Points of the F Distribution (Continued)

v_1		$\alpha = .01$								
		Numerator Degrees of Freedom								
v_2	1	2	3	4	5	6	7	8	9	
1	4052.18	4999.34	5403.53	5624.26	5763.96	5858.95	5928.33	5980.95	6022.40	
2	98.50	99.00	99.16	99.25	99.30	99.33	99.36	99.38	99.39	
3	34.12	30.82	29.46	28.71	28.24	27.91	27.67	27.49	27.34	
4	21.20	18.00	16.69	15.98	15.52	15.21	14.98	14.80	14.66	
5	16.26	13.27	12.06	11.39	10.97	10.67	10.46	10.29	10.16	
6	13.75	10.92	9.78	9.15	8.75	8.47	8.26	8.10	7.98	
7	12.25	9.55	8.45	7.85	7.46	7.19	6.99	6.84	6.72	
8	11.26	8.65	7.59	7.01	6.63	6.37	6.18	6.03	5.91	
9	10.56	8.02	6.99	6.42	6.06	5.80	5.61	5.47	5.35	
10	10.04	7.56	6.55	5.99	5.64	5.39	5.20	5.06	4.94	
11	9.65	7.21	6.22	5.67	5.32	5.07	4.89	4.74	4.63	
12	9.33	6.93	5.95	5.41	5.06	4.82	4.64	4.50	4.39	
13	9.07	6.70	5.74	5.21	4.86	4.62	4.44	4.30	4.19	
14	8.86	6.51	5.56	5.04	4.69	4.46	4.28	4.14	4.03	
15	8.68	6.36	5.42	4.89	4.56	4.32	4.14	4.00	3.89	
16	8.53	6.23	5.29	4.77	4.44	4.20	4.03	3.89	3.78	
17	8.40	6.11	5.19	4.67	4.34	4.10	3.93	3.79	3.68	
18	8.29	6.01	5.09	4.58	4.25	4.01	3.84	3.71	3.60	
19	8.18	5.93	5.01	4.50	4.17	3.94	3.77	3.63	3.52	
20	8.10	5.85	4.94	4.43	4.10	3.87	3.70	3.56	3.46	
21	8.02	5.78	4.87	4.37	4.04	3.81	3.64	3.51	3.40	
22	7.95	5.72	4.82	4.31	3.99	3.76	3.59	3.45	3.35	
23	7.88	5.66	4.76	4.26	3.94	3.71	3.54	3.41	3.30	
24	7.82	5.61	4.72	4.22	3.90	3.67	3.50	3.36	3.26	
25	7.77	5.57	4.68	4.18	3.85	3.63	3.46	3.32	3.22	
26	7.72	5.53	4.64	4.14	3.82	3.59	3.42	3.29	3.18	
27	7.68	5.49	4.60	4.11	3.78	3.56	3.39	3.26	3.15	
28	7.64	5.45	4.57	4.07	3.75	3.53	3.36	3.23	3.12	
29	7.60	5.42	4.54	4.04	3.73	3.50	3.33	3.20	3.09	
30	7.56	5.39	4.51	4.02	3.70	3.47	3.30	3.17	3.07	
40	7.31	5.18	4.31	3.83	3.51	3.29	3.12	2.99	2.89	
60	7.08	4.98	4.13	3.65	3.34	3.12	2.95	2.82	2.72	
120	6.85	4.79	3.95	3.48	3.17	2.96	2.79	2.66	2.56	
∞	6.63	4.61	3.78	3.32	3.02	2.80	2.64	2.51	2.41	



TABLE 6

Percentage Points of the F Distribution (Continued)

		= .01 α								v_1	v_2
		Numerator Degrees of Freedom								q	
10	12	15	20	24	30	40	60	120	q		
6055.93	6106.68	6156.97	6208.66	6234.27	6260.35	6286.43	6312.97	6339.51	6366.00	1	
99.40	99.42	99.43	99.45	99.46	99.47	99.48	99.48	99.49	99.50	2	
27.23	27.05	26.87	26.69	26.60	26.50	26.41	26.32	26.22	26.13	3	
14.55	14.37	14.20	14.02	13.93	13.84	13.75	13.65	13.56	13.46	4	
10.05	9.89	9.72	9.55	9.47	9.38	9.29	9.20	9.11	9.02	5	
7.87	7.72	7.56	7.40	7.31	7.23	7.14	7.06	6.97	6.88	6	
6.62	6.47	6.31	6.16	6.07	5.99	5.91	5.82	5.74	5.65	7	
5.81	5.67	5.52	5.36	5.28	5.20	5.12	5.03	4.95	4.86	8	
5.26	5.11	4.96	4.81	4.73	4.65	4.57	4.48	4.40	4.31	9	
4.85	4.71	4.56	4.41	4.33	4.25	4.17	4.08	4.00	3.91	10	
4.54	4.40	4.25	4.10	4.02	3.94	3.86	3.78	3.69	3.60	11	
4.30	4.16	4.01	3.86	3.78	3.70	3.62	3.54	3.45	3.36	12	
4.10	3.96	3.82	3.66	3.59	3.51	3.43	3.34	3.25	3.17	13	
3.94	3.80	3.66	3.51	3.43	3.35	3.27	3.18	3.09	3.00	14	
3.80	3.67	3.52	3.37	3.29	3.21	3.13	3.05	2.96	2.87	15	
3.69	3.55	3.41	3.26	3.18	3.10	3.02	2.93	2.84	2.75	16	
3.59	3.46	3.31	3.16	3.08	3.00	2.92	2.83	2.75	2.65	17	
3.51	3.37	3.23	3.08	3.00	2.92	2.84	2.75	2.66	2.57	18	
3.43	3.30	3.15	3.00	2.92	2.84	2.76	2.67	2.58	2.49	19	
3.37	3.23	3.09	2.94	2.86	2.78	2.69	2.61	2.52	2.42	20	
3.31	3.17	3.03	2.88	2.80	2.72	2.64	2.55	2.46	2.36	21	
3.26	3.12	2.98	2.83	2.75	2.67	2.58	2.50	2.40	2.31	22	
3.21	3.07	2.93	2.78	2.70	2.62	2.54	2.45	2.35	2.26	23	
3.17	3.03	2.89	2.74	2.66	2.58	2.49	2.40	2.31	2.21	24	
3.13	2.99	2.85	2.70	2.62	2.54	2.45	2.36	2.27	2.17	25	
3.09	2.96	2.81	2.66	2.58	2.50	2.42	2.33	2.23	2.13	26	
3.06	2.93	2.78	2.63	2.55	2.47	2.38	2.29	2.20	2.10	27	
3.03	2.90	2.75	2.60	2.52	2.44	2.35	2.26	2.17	2.06	28	
3.00	2.87	2.73	2.57	2.49	2.41	2.33	2.23	2.14	2.03	29	
2.98	2.84	2.70	2.55	2.47	2.39	2.30	2.21	2.11	2.01	30	
2.80	2.66	2.52	2.37	2.29	2.20	2.11	2.02	1.92	1.80	40	
2.63	2.50	2.35	2.20	2.12	2.03	1.94	1.84	1.73	1.60	60	
2.47	2.34	2.19	2.03	1.95	1.86	1.76	1.66	1.53	1.38	120	
2.32	2.18	2.04	1.88	1.79	1.70	1.59	1.47	1.32	1.00	q	

Denominator Degrees of Freedom

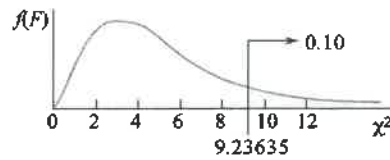
(Continued)



T A B L E 7

The Chi-Square Table

Values of χ^2 for Selected Probabilities



Example: df (Number of degrees of freedom) = 5, the tail above $\chi^2 = 9.23635$ represents 0.10 or 10% of area under the curve.

Degrees of Freedom	Area in Upper Tail									
	.995	.99	.975	.95	.9	.1	.05	.025	.01	.005
1	0.0000393	0.0001571	0.0009821	0.0039322	0.0157907	2.7055	3.8415	5.0239	6.6349	7.8794
2	0.010025	0.020100	0.050636	0.102586	0.210721	4.6052	5.9915	7.3778	9.2104	10.5965
3	0.07172	0.11483	0.21579	0.35185	0.58438	6.2514	7.8147	9.3484	11.3449	12.8381
4	0.20698	0.29711	0.48442	0.71072	1.06362	7.7794	9.4877	11.1433	13.2767	14.8602
5	0.41175	0.55430	0.83121	1.14548	1.61031	9.2363	11.0705	12.8325	15.0863	16.7496
6	0.67573	0.87208	1.23734	1.63538	2.20413	10.6446	12.5916	14.4494	16.8119	18.5475
7	0.98925	1.23903	1.68986	2.16735	2.83311	12.0170	14.0671	16.0128	18.4753	20.2777
8	1.34440	1.64651	2.17972	2.73263	3.48954	13.3616	15.5073	17.5345	20.0902	21.9549
9	1.73491	2.08789	2.70039	3.32512	4.16816	14.6837	16.9190	19.0228	21.6660	23.5893
10	2.15585	2.55820	3.24696	3.94030	4.86518	15.9872	18.3070	20.4832	23.2093	25.1881
11	2.60320	3.05350	3.81574	4.57481	5.57779	17.2750	19.6752	21.9200	24.7250	26.7569
12	3.07379	3.57055	4.40378	5.22603	6.30380	18.5493	21.0261	23.3367	26.2170	28.2997
13	3.56504	4.10690	5.00874	5.89186	7.04150	19.8119	22.3620	24.7356	27.6882	29.8193
14	4.07466	4.66042	5.62872	6.57063	7.78954	21.0641	23.6848	26.1189	29.1412	31.3194
15	4.60087	5.22936	6.26212	7.26093	8.54675	22.3071	24.9958	27.4884	30.5780	32.8015
16	5.14216	5.81220	6.90766	7.96164	9.31224	23.5418	26.2962	28.8453	31.9999	34.2671
17	5.69727	6.40774	7.56418	8.67175	10.08518	24.7690	27.5871	30.1910	33.4087	35.7184
18	6.26477	7.01490	8.23074	9.39045	10.86494	25.9894	28.8693	31.5264	34.8052	37.1564
19	6.84392	7.63270	8.90651	10.11701	11.65091	27.2036	30.1435	32.8523	36.1908	38.5821
20	7.43381	8.26037	9.59077	10.85080	12.44260	28.4120	31.4104	34.1696	37.5663	39.9969
21	8.03360	8.89717	10.28291	11.59132	13.23960	29.6151	32.6706	35.4789	38.9322	41.4009
22	8.64268	9.54249	10.98233	12.33801	14.04149	30.8133	33.9245	36.7807	40.2894	42.7957
23	9.26038	10.19569	11.68853	13.09051	14.84795	32.0069	35.1725	38.0756	41.6383	44.1814
24	9.88620	10.85635	12.40115	13.84842	15.65868	33.1962	36.4150	39.3641	42.9798	45.5584
25	10.51965	11.52395	13.11971	14.61140	16.47341	34.3816	37.6525	40.6465	44.3140	46.9280
26	11.16022	12.19818	13.84388	15.37916	17.29188	35.5632	38.8851	41.9231	45.6416	48.2898
27	11.80765	12.87847	14.57337	16.15139	18.11389	36.7412	40.1133	43.1945	46.9628	49.6450
28	12.46128	13.56467	15.30785	16.92788	18.93924	37.9159	41.3372	44.4608	48.2782	50.9936
29	13.12107	14.25641	16.04705	17.70838	19.76774	39.0875	42.5569	45.7223	49.5878	52.3355
30	13.78668	14.95346	16.79076	18.49267	20.59924	40.2560	43.7730	46.9792	50.8922	53.6719
40	20.70658	22.16420	24.43306	26.50930	29.05052	51.8050	55.7585	59.3417	63.6908	66.7660
50	27.99082	29.70673	32.35738	34.76424	37.68864	63.1671	67.5048	71.4202	76.1538	79.4898
60	35.53440	37.48480	40.48171	43.18797	46.45888	74.3970	79.0820	83.2977	88.3794	91.9518
70	43.27531	45.44170	48.75754	51.73926	55.32894	85.5270	90.5313	95.0231	100.4251	104.2148
80	51.17193	53.53998	57.15315	60.39146	64.27784	96.5782	101.8795	106.6285	112.3288	116.3209
90	59.19633	61.75402	65.64659	69.12602	73.29108	107.5650	113.1452	118.1359	124.1162	128.2987
100	67.32753	70.06500	74.22188	77.92944	82.35813	118.4980	124.3221	129.5613	135.8069	140.1697



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Information System & Business Analytics (ISBA)	Subject Code:	MGMB12104
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

Course Overview:

This course sensitizes the students with the role of information system and business analytics in empowering business and managerial decision making to drive business value. The course would enable students to develop an ability to analyze the information needs of the organizations; and how various information systems can be utilized organization-wide to achieve organizational goals. The course would also provide students with an understanding of various information systems and business analytics tools and techniques, along with their appropriateness in various industries, to derive meaning from actionable information for effective decision making.

Ethics is one of the major concerns in context of technology, and hence, this course aims that students should understand the ethical and social concerns pertaining to the use of information system and business analytics, and address them effectively. The course also intends to provide a global perspective to the students regarding the use of information system and business analytics. Also, by analyzing case studies on organizations that successfully deployed these techniques, students will develop their skills to interpret real-world data set and make appropriate strategic recommendations for business. Practical exposure to few Business Intelligence software and use of some business analytics tools can be provided to the students.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Information System & Business Analytics (ISBA)	Subject Code:	MGMB12104
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

LO1	Analyse the information needs of the organizations globally and propose relevant information systems to achieve organizational goals at various levels and functional areas of the organizations
LO2	Determine the ethical and social concerns pertaining to the use of information system and business analytics and propose effective ways to address these concerns
LO3	Develop understanding of various existing and futuristic tools and techniques of business analytics used globally for effective decision making
LO4	Examine the application of business analytics for various industries globally and propose relevant analytical solutions in business context

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	3	2	3	1	-	2	1
LO2	3	3	2	-	-	3	1	1
LO3	3	2	-	3	1	-	2	3
LO4	-	3	2	3	-	-	1	1

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
	Basic Understanding of Information System: <ul style="list-style-type: none"> Data, Types of Digital Data, Information and Knowledge 	1, 2		



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Information System & Business Analytics (ISBA)	Subject Code:	MGMB12104
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

I	<ul style="list-style-type: none"> • Meaning, Need and Benefits, Functions, and Components of Information System <p>Classification of Information System:</p> <ul style="list-style-type: none"> • Hierarchical Information System <ul style="list-style-type: none"> - The Level of People, Types of Decisions and their Information Needs - Transaction of Processing System (TPS) - Management Information System (MIS) - Decision Support System (DSS) - Executive Support / Information System (ESS/EIS) - Expert System (ES) 	08	12
II	<p>Classification of Information System:</p> <ul style="list-style-type: none"> • Functional Information Systems <ul style="list-style-type: none"> - Marketing Information System (MkIS) - Human Resource Information System (HRIS) - Financial Information System (FIS) - Productions and Operations Information System (POIS) • Enterprise Systems <ul style="list-style-type: none"> - Enterprise Resource Planning (ERP) - Supply Chain Management System (SCM) - Customer Relationship Management (CRM) - Business Intelligence (BI) <p>Needs / Benefits, Components, Applications</p>	1, 2	10 13
III	<p>Basic Understanding of Business Analytics:</p> <ul style="list-style-type: none"> • Needs/Benefits, Components and Types • Big Data <ul style="list-style-type: none"> - Meaning and Characteristics <p>Tools and Techniques of Business Analytics (meaning and applications):</p>	2, 3, 4	12 13



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Information System & Business Analytics (ISBA)	Subject Code:	MGMB12104
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> • Descriptive Analytics <ul style="list-style-type: none"> - Data Visualizations and Visual Analytics, Business Reporting and Dashboard • Predictive Analytics <ul style="list-style-type: none"> - Data Mining <ul style="list-style-type: none"> ▪ Meaning, Process and Task (Prediction, Association, and Clustering) - Text Analytics, Text Mining, and Sentiment Analysis - Web Analytics, Web Mining, and Social Media Analytics • Prescriptive Analytics <ul style="list-style-type: none"> - Optimization <ul style="list-style-type: none"> ▪ Linear Programming, Multiple Goals, Sensitivity Analysis, What-if Analysis, and Goal Seeking 			
IV	<p>Analytics in Industries:</p> <ul style="list-style-type: none"> • Telecom, Retail, Healthcare, Banking, Tourism and Hospitality <p>Ethical Issues pertaining to IS & BA:</p> <ul style="list-style-type: none"> • Ethical responsibilities of business professionals <p>Cyber Crime:</p> <ul style="list-style-type: none"> • Hacking and Cracking • Cyber Theft • Software Privacy • Viruses & Worms • Adware & Spyware <p>Information Security:</p> <ul style="list-style-type: none"> • First line of defence – People / employees, 	2, 3, 4	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Information System & Business Analytics (ISBA)	Subject Code:	MGMB12104
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none">• Second line of defence – Technology for authorization, prevention, detection and response			
--	---	--	--	--

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hours Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, class participation, etc.

Mid-Semester Exam:

The 1-hour Mid-Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr.	Title of the Book	Authors	Publication and
-----	-------------------	---------	-----------------



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Information System & Business Analytics (ISBA)	Subject Code:	MGMB12104
Subject class:	Foundation Course	Semester:	I
Credits:	04	Contact Hours:	40

No.			Edition
1	Essentials of Management Information Systems	Kenneth Laudon, Jane Laudon	PHI, Latest
2	Business Driven Technology	Stephen Haag, Amy Philips	McGraw Hill, Latest
3	Business Intelligence: A Managerial Perspective on Analytics	Ramesh Sharda, Dursun Delen, Efraim Turban	Pearson, Latest
4	Business Analytics – The Science of Data Driven Decision Making	U. Dinesh Kumar	Wiley, Latest

Newspapers / Magazines / Journals:

1. International Journal of Business Analytics
2. International Journal of Business Analytics and Intelligence
3. International Journal on Consumer and Business Analytics
4. Analytics India – Magazine



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Communications (MC)	Subject Code:	MGMB19105
Subject class:	Professional Ability Enhancement Compulsory Course	Semester:	I
Credits:	04	Contact Hours:	40

Course Overview:

This course shall enable students to develop a managerial approach for the exchange of information at internal and external level. It will also help students to learn the effective ways for persuasive communication in various business settings. Upon completion of this course, students will be able to:

- Understand the importance of different business communication tools / techniques.
- Apply the appropriate communication skills in different business scenario.
- Develop the feasible business solution using an effective communication technique.

The course shall facilitate students to develop the effective writing and speaking skills essential at the managerial level.

This course explores both marketing theory and practice. The classroom teaching of the subject shall enable you to learn different communication skills / techniques including verbal – nonverbal, written – oral for managerial decision making and problem-solving approach. The class shall also equip students with various hands-on activities to learn and apply the right communication tool in various business situations.

Course concepts are illustrated primarily through lectures and for each topic we discuss cases / hands on activities like games / simulations / speeches / presentations. You will have a chance to illustrate your ability to apply the framework in this course through case discussion, presentations, writing reports and mid-term, final exams.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners to understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	Analyse the role of different communication tools / theories in the organizational and global context.
LO2	Design an appropriate communication tool – business letters and reports, resume / CV for a given context.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Communications (MC)	Subject Code:	MGMB19105
Subject class:	Professional Ability Enhancement Compulsory Course	Semester:	I
Credits:	04	Contact Hours:	40

LO3	<i>Recommend</i> the appropriate communication skills - personal communication, verbal and non-verbal, formal and informal in different business scenarios.
LO4	<i>Determine</i> appropriate use of different communication channels for collaborating in teams.
LO5	<i>Propose</i> the significance and application of ethical, social and cultural considerations for effective communication.

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	2	3	2	1	1	1	1
LO2	3	3	3	1	1	1	1	1
LO3	3	2	3	3	1	1	1	1
LO4	1	3	3	1	3	1	3	1
LO5	1	2	2	2	2	3	2	1

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	Communication in organization: <ul style="list-style-type: none"> • Importance of Communication • Types of Communication • Communication Process • 7 Cs of Communication • Types of Nonverbal Communication • Organisational Communication networks • Barriers to effective communication • Ethics in communication • Legal Aspects of Business Communication • Strategies of improving organizational 	1,3,5	12	15



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Communications (MC)	Subject Code:	MGMB19105
Subject class:	Professional Ability Enhancement Compulsory Course	Semester:	I
Credits:	04	Contact Hours:	40

Communication				
II	Listening and Speaking Skills: <ul style="list-style-type: none"> • Listening – Active and Passive • Strategies for effective listening • Barriers to effective listening • Importance & types of oral communication • Public speaking and effective business presentation • Different types of speeches • Role of nonverbal communication in oral delivery 	3,4,5	10	15
III	Written Communication skills: <ul style="list-style-type: none"> • Business Letter writing and types • Email writing • Resumes and Cover letters • Business proposals • Report writing • Minutes of Meeting • Notices and Memos 	2,3	10	15
IV	Interpersonal & Cross-cultural Communication skills: <ul style="list-style-type: none"> • Interpersonal communication - stages and styles • Communication in teams • Negotiation skills • Social media communication • Different communication styles in cross cultural communication • Cultural variables and communication sensitivity • Cross cultural communication strategies 	1,3,4,5	08	10

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Communications (MC)	Subject Code:	MGMB19105
Subject class:	Professional Ability Enhancement Compulsory Course	Semester:	I
Credits:	04	Contact Hours:	40

Mid – semester Exam (M) - Formative	30 marks
--	-----------------

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, seminars, presentations, role plays, class participation, etc.

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Business Communication	Raman, M., Singh	Oxford University Press (Latest edition)
2	Business Communication	Raymond V. Lesikar	McGraw- Hill (Latest edition)
3	The South Asian Perspective on Business Communication	Carol M. Lehman, Debbie D. DuFrene, Mala Sinha	Cengage Learning (Latest edition)
4	Effective Business Communication	Herta A. Murphy, Herbert W. Hildebrandt, Jane P. Thomas	McGraw- Hill (Latest edition)



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Communications (MC)	Subject Code:	MGMB19105
Subject class:	Professional Ability Enhancement Compulsory Course	Semester:	I
Credits:	04	Contact Hours:	40

Newspapers / Magazines / Journals:

1. Bulletin of the Association for Business Communication
2. Journal of Business Communication
3. Harvard Business Review
4. Economic Time / Times of India / Business India / Business Today /

Web resources:

1. www.mindtools.com



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Economics (ME)	Subject Code:	MGMB11106
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

Course Overview

This course is designed to expose the students to the basic principles of microeconomic and macroeconomic theory and applications. The course will illustrate the way in which economists view the world. Students will understand the behavior of households, firms and government. Students will get insights about various economics aspects like Demand and Supply, Elasticity and its applications, various types of costs, industrial structure, GDP, Inflation, Money Supply, Aggregate Demand and Supply, Monetary and Fiscal Policy. Students will gain experience in writing like an economist, presenting their work, and working in teams to analyze real world problems.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	Examine and elaborate the concepts of principles of economics to evaluate business trade-offs and make decisions along with magnitude of relationship between Demand and Supply.
LO2	Interpret how market forces interact & determine the direction and Evaluate how markets work to allocate resources to take optimal firm's decision (Price and efficient scale) for profit maximization.
LO3	Infer the basic Macroeconomics Concepts and assess its influence on the socio-economic welfare of a country's citizens.
LO4	Analyze aggregate demand and aggregate supply in short run and long run through the impact of monetary and fiscal policy to understand economic fluctuations.
LO5	Demonstrate the ability to apply economics practices and models for effective business decisions.

Mapping Learning Outcomes to Program Outcomes:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Economics (ME)	Subject Code:	MGMB11106
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	1	-	3	1	-	2	3
LO2	3	3	1	2	1	1	2	2
LO3	2	2	-	2	1	3	2	2
LO4	2	3	-	3	-	1	1	2
LO5	1	3	1	2	2	1	3	2

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	<ul style="list-style-type: none"> • Nature of Managerial economics <ul style="list-style-type: none"> ○ Concept and features of managerial economics ○ Significance of managerial economics • The principles of economics <ul style="list-style-type: none"> ○ How people make decision ○ How people interact ○ How an economy as a whole works • The market forces of supply and demand <ul style="list-style-type: none"> ○ Demand and supply ○ Equilibrium analysis • Elasticity and its applications <ul style="list-style-type: none"> ○ Price elasticity of demand (with Calculation) ○ Other Demand Elasticity (with Calculation) 	1, 2	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Economics (ME)	Subject Code:	MGMB11106
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> ○ Price elasticity of supply (with Calculation) ○ Application of elasticity ● The costs of production and analysis <ul style="list-style-type: none"> ○ Concept and various measures of cost (with Calculation) ○ Cost in the short run and long run 				
II	<ul style="list-style-type: none"> ● Perfect competition <ul style="list-style-type: none"> ○ Concept and features ○ Profit maximization analysis ○ Short run and long run analysis ● Monopoly Pricing and Output Equilibrium <ul style="list-style-type: none"> ○ Concept and features ○ Profit maximization analysis ○ Price Discrimination ○ Public policies towards Monopolies ● Oligopoly Market <ul style="list-style-type: none"> ○ Concept and features ○ Game theory - Prisoner's dilemma ● Monopolistic competition <ul style="list-style-type: none"> ○ Concept and features ○ Short run and long run analysis ○ Advertising for products differentiation 	1, 2, 5		10	13
III	<ul style="list-style-type: none"> ● Measuring a nation's income and cost of living <ul style="list-style-type: none"> ○ Concept of GDP, GNP, PPP ○ Components of GDP ○ Real and Nominal GDP (with Calculation) ○ The consumer price index (with Calculation) ○ Indexation ● Production and growth <ul style="list-style-type: none"> ○ Factors of production and its determinants ○ Role of Government towards economic growth ● Indian monetary system <ul style="list-style-type: none"> ○ Concept, functions and types of money 	3, 5		10	13



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Economics (ME)	Subject Code:	MGMB11106
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> ○ RBI and money supply ● Money growth and inflation <ul style="list-style-type: none"> ○ The classical theory of Inflation ○ The cost of Inflation 			
IV	<ul style="list-style-type: none"> ● Concept of Open-economy <ul style="list-style-type: none"> ○ The international flow of Goods and Capital ○ Real and Nominal exchange rate ● Aggregate demand and Aggregate supply <ul style="list-style-type: none"> ○ Concept and causes economic fluctuations ○ The aggregate demand curve ○ The aggregate supply curve ● Monetary & Fiscal policy and aggregate demand <ul style="list-style-type: none"> ○ Influence of monetary policy on aggregate demand ○ Influence of fiscal policy on aggregate demand ● The Phillips curve <ul style="list-style-type: none"> ○ Concept ○ The role of expectations ○ The role of supply shocks 	4, 5	10	12

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Economics (ME)	Subject Code:	MGMB11106
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, seminars, paper presentations, role plays, class participation, etc.

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Economics: Principles & Applications	Gregory Mankiw	Cengage
2	Managerial Economics: Theory & Applications	Dr D. M. Mithani	Himalaya
3	Managerial Economics	G. S. Gupta	Tata Mcgraw Hill
4	Managerial Economics	H.L Ahuja	S Chand
5	Managerial economics: concepts and cases	Mote, V. L., Paul, S. & Gupta G. S	Tata McGraw-Hill
6	Managerial economics	Ghosh, P., & Chowdhury, P. R.	Tata McGraw-Hill

Newspapers / Magazines / Journals:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Managerial Economics (ME)	Subject Code:	MGMB11106
Subject class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

1. Harvard Business Review
2. Business Standard/Economic Times/Financial Times/ Financial Express/
3. Economic & Political Weekly
4. Asian Journal of Research in Business Economics
5. Indian Journal of Economics and Development

Web resources:

1. <https://www.economist.com/> - The Economist
2. <https://economictimes.indiatimes.com/> - The Economic Times
3. <https://www.business-standard.com/> - Business standard



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Organizational Behaviour (OB)	Subject Code:	MGMB11107
Subject Class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

Course Overview:

This course provides a comprehensive insight on behavioural aspects, with a focus on understanding behavioural dimensions covering individual, group and organisational perspective. Upon completion of this course, you will be able to:

- Understand key organisational behaviour concepts and their real-world implementations.
- Apply state-of-the-art frameworks towards analysing behavioural issues and designing appropriate solutions.
- Develop an ability to understand behavioural concerns in varied organisational setting.

This course explores both OB theories and practices. The lecture sessions introduce you to established concepts, techniques, and frameworks of various aspects of OB. Experiential Learning, Self-Assessment Tools, Projects, Case Study Sessions and Assignments shall cover a range of OB related issues including the understanding of self and others through personality test, motivation, culture, conflict and leadership — illustrate how these concepts, techniques, and frameworks can be applied in real world context.

Course concepts are illustrated primarily through lectures and for selected topics of fundamentals of management, individual behaviour, group and organisational dynamics, one or two cases shall be discussed. The cases are complemented with teaching notes that further elaborate on key issues. Students shall develop an ability to apply the framework in this course through case discussion, mid-term and final exams.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Organizational Behaviour (OB)	Subject Code:	MGMB11107
Subject Class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

LO1	<i>Examine</i> different functions, roles and skills required by managers and / or OB specialist.
LO2	<i>Evaluate</i> the behaviour of self, individuals and groups in the organisational setting.
LO3	<i>Recommend</i> ways to minimize / manage team problems, conflict and stress in the organisational context.
LO4	<i>Evaluate</i> the culture of a given organization.
LO5	<i>Evaluate</i> leadership styles of leaders.

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	1	2	2	2	--	2	2
LO2	3	3	1	1	3	2	1	2
LO3	3	2	3	1	3	2	2	2
LO4	2	2	2	3	3	2	2	3
LO5	2	2	3	2	3	2	1	2

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Organizational Behaviour (OB)	Subject Code:	MGMB11107
Subject Class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks (Out of 50)
I	Fundamentals of Management – <ul style="list-style-type: none"> • Definition, Characteristics • Management Functions • Managerial Roles • Management Skills Fundamentals of Organisational Behaviour – <ul style="list-style-type: none"> • Definition • Challenges for OB Specialist • OB Model • Disciplines contributing to the field of OB 	1, 5	07	10
II	Individual Behaviour – <ul style="list-style-type: none"> • Values & Personality • Attitude – Major Job Attitudes • Motivation Theories & Application <ul style="list-style-type: none"> ○ Scientific Management ○ Human Relations ○ Maslow Need Hierarchy Theory ○ Herzberg two factor Theory ○ Goal Setting & Self Efficacy ○ Expectancy Theory ○ Adam's Equity Theory ○ Job Characteristic Model ○ Alternative Work Arrangement ○ Skill based Reward System 	2, 4	12	15
III	Group Behaviour – <ul style="list-style-type: none"> • Perception – Process & Errors (Attribution Theory) • Transactional Analysis • Team Dynamics <ul style="list-style-type: none"> ○ Types, Team Building Process • Conflict Management • Stress Management 	2, 3	11	12
IV	Individual & Group Behaviour at Workplace – <ul style="list-style-type: none"> • Organisational Culture • Organisational Power & Politics • Leadership 	4, 5	10	13



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Organizational Behaviour (OB)	Subject Code:	MGMB11107
Subject Class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

Module	Module Contents	Learning Outcomes	Contact Hours	Marks (Out of 50)
	<ul style="list-style-type: none">○ An Overview of Basic Theories of Leadership○ Transactional○ Transformational○ Authentic○ Servant			

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – Semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as case discussions, class room activities, seminars, paper presentations, role plays, class participation, etc.

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Organizational Behaviour (OB)	Subject Code:	MGMB11107
Subject Class:	Core Course	Semester:	I
Credits:	04	Contact Hours:	40

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Organisational Behaviour: Text, Cases & Games	Aswathappa, K.	Himalaya Publishing House (2005)
2	Organisational Behaviour	Buchanan, D. A., & Huczynski, A. A.	Pearson UK (2019)
3	Understanding and managing organisational Behaviour	George, J. M., Jones, G. R., & Sharbrough, W. C.	Upper Saddle River, NJ: Pearson Prentice Hall (2005)
4	Organisational Behaviour	Parikh, M.	Tata McGraw-Hill Education (2010)
5	Organisational Behaviour	Robbins, S. P., & Judge, T. A.	Pearson, India 15 th Edition (2013)

Newspapers / Magazines / Journals:

- Asian Journal of Management Case
- Harvard Business Review
- Indian Management
- Journal of Organisational Behaviour
- Journal of Organisational Behaviour Management
- People Matters



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Office Automation Skills (OAS)	Subject Code:	MGMB10100
Subject class:	Liberal Studies and Life Skills	Semester:	I
Credits:	0	Contact Hours:	20

Course Overview:

This course aims to teach electronic document management skills to the students. The course will enable the students to successfully create and format documents. Spreadsheet tools will help students for storing and sorting data, preparing charts and graphs for effective analysis and interpretation. Students will be able to apply Presentation tools that can be used to create effective project slideshows, handouts.

This is a fundamental course that covers fonts and formats, creating a table and few other basic functions. In Spreadsheet, formulas can be used for sorting a table or formatting. It also helps the students to format the presentation slides by using the various layouts to provide special effects by selecting customized designs of templates for their presentation. Practical exercises will accompany each topic covered during the course.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	Create and navigate spreadsheet to perform data analysis aids to effective representation
LO2	Improve ability of preparing business documents to enhance work productivity
LO3	Compile organisational documents to construct electronic presentation material
LO4	Proficient in emerging computer technologies to perform various office functions

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Office Automation Skills (OAS)	Subject Code:	MGMB10100
Subject class:	Liberal Studies and Life Skills	Semester:	I
Credits:	0	Contact Hours:	20

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	3	1	1	-	-	-	2
LO2	3	2	2	1	-	-	-	2
LO3	3	3	3	1	-	-	-	2
LO4	3	2	2	2	-	-	-	3

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	Overview of System Software and Application Software Spreadsheets Processing Application-I o Home: Entering Data, Editing, Cut, Copy, Paste, Paste Special Font Alignment – Indent, Merge & center, wrap text Number, Style, Cells Editing – Find, replace o Insert Table, pivot table Charts o Page Layout Margins, orientation, size, print area, Background	1,4	5	18



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Office Automation Skills (OAS)	Subject Code:	MGMB10100
Subject class:	Liberal Studies and Life Skills	Semester:	I
Credits:	0	Contact Hours:	20

	<ul style="list-style-type: none"> o Formula <ul style="list-style-type: none"> Auto sum Statistical Lookup o Data <ul style="list-style-type: none"> Sort, Filter Text to Columns, remove duplicates, data validation o Review <ul style="list-style-type: none"> Protect Sheet, Protect Worksheet o View <ul style="list-style-type: none"> Workbook Views, Freeze Panes 			
II	Word Processing Application <ul style="list-style-type: none"> o File <ul style="list-style-type: none"> Save, Save as, Protect Document, Print Preview o Home <ul style="list-style-type: none"> Font, Paragraph, Format Painter, Select, Find & Replace, Styles o Insert <ul style="list-style-type: none"> Cover page, blank page & page break Table Charts, Shapes (Smart Arts) & Symbol Hyperlink, Cross-reference, Comments Header – Footer & Page number Word Art, Signature Line, Date & Time o Design <ul style="list-style-type: none"> Document formatting Page border and color Theme, watermark o Layout <ul style="list-style-type: none"> Margins, orientation, Size, Columns Section Break Indent, spacing o References <ul style="list-style-type: none"> Table of content 	2,4	5	17



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Office Automation Skills (OAS)	Subject Code:	MGMB10100
Subject class:	Liberal Studies and Life Skills	Semester:	I
Credits:	0	Contact Hours:	20

	Insert footnote and endnote Insert citation o Reviews Spelling & Grammar World Count			
III	Presentation Processing Application o Home New Slide, layout, reset Font, Paragraph Drawing o Insert Table Charts, Shapes (Smart Arts) Hyperlink Slide number Media Clip o Design Theme Variants Slide Size Format Background o Transition to slide o Custom Animation o Slide Show o Review Spelling Comment o View Normal View, Outline View, Slide Sorter, Notes Page. Reading view Slide Master	3,4	5	15

Grading:

Component	Weightage
-----------	-----------



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Office Automation Skills (OAS)	Subject Code:	MGMB10100
Subject class:	Liberal Studies and Life Skills	Semester:	I
Credits:	0	Contact Hours:	20

Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	-
Mid – semester Exam (M) - Formative	-

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, classroom activities, seminars, paper presentations, role plays, class participation, etc.

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Office 365 All-in-One For Dummies	Peter Weverka	John Wiley & Sons
2	Ms-Office 2010 Training Guide	Satish Jain, M. Geetha	BPB Publication

Newspapers / Magazines / Journals:

<https://biztechmagazine.com/article/2010/07/office-2010-touts-productivity>

Web resources:

<https://edu.gcfglobal.org/en/subjects/office/>



SEMESTER - 2



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Research (BR)	Subject Code:	MGMB19201
Subject class:	Professional Ability Enhancement Compulsory Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Overview:

This course shall enable students to understand and identify research designs, methodologies and analysis techniques. It also provides them with experience in designing questionnaires and report writing. Students shall be in a position to conduct the independent research with suitable research design and methodologies.

The course delivery consists of lecture sessions to make you understand basic concepts and techniques, and ongoing real-life project in order to have application of theoretical concepts.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	<i>Develop a research proposal for a given management problem.</i>
LO2	Identify and develop appropriate research design
LO3	Decide sampling technique and develop data collection tools
LO4	Analyse data using statistical software
LO5	Create detailed research report

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	1	-	2	-	2	-	2
LO2	3	3	-	-	-	-	-	2
LO3	2	2	-	-	-	1	-	2
LO4	2	3	-	-	-	-	-	1
LO5	1	1	3	-	-	2	-	3

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Research (BR)	Subject Code:	MGMB19201
Subject class:	Professional Ability Enhancement Compulsory Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	<p>Introduction to Business Research:</p> <ul style="list-style-type: none"> • Research <ul style="list-style-type: none"> ○ Meaning and types of business research <ul style="list-style-type: none"> ▪ Basic v/s applied ▪ Qualitative v/s quantitative • Ethics in research <p>Business Research Process – Stage I</p> <ol style="list-style-type: none"> 1. Problem Identification / Problem statement 2. Review of Literature (including citation and bibliography / references). 3. Research Questions & Research Objectives 4. Hypothesis formulation <p>Research Writing: - Research Proposal</p>	1	10	12
II	<p>Business Research Process – Stage II</p> <ol style="list-style-type: none"> 5. Research Design: <ul style="list-style-type: none"> Exploratory Research Design: <i>Qualitative Research:</i> Observation, Focus Group Conclusive Research Design: <i>Quantitative Research:</i> 	2	10	14



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Research (BR)	Subject Code:	MGMB19201
Subject class:	Professional Ability Enhancement Compulsory Course	Semester:	II
Credits:	04	Contact Hours:	40

	Descriptive research – survey Causal research – Experimentation – labs v/s field experiments			
III	Business Research Process – Stage III 6. Sampling Design – Probabilistic and non-probabilistic sampling. 7. Data collection – sources, Measurement and Scaling, Questionnaire designing, Validity and Reliability.	3	10	12
IV	Business Research Process – Stage IV 8. Data Preparation – preliminary questionnaire screening, editing, coding and data entry (using statistical software). 9. Data Analysis – Hypothesis Testing (on software) 10. Research Writing – Synopsis, Research Report	4, 5	10	12

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Business Research (BR)	Subject Code:	MGMB19201
Subject class:	Professional Ability Enhancement Compulsory Course	Semester:	II
Credits:	04	Contact Hours:	40

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, seminars, paper presentations, role plays, class participation, etc.

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Naval Bajpai	Business Research Methods	Pearson, Latest Edition
2	Naresh Malhotra and Satyabhusan Dash	Marketing Research – An applied orientation	Pearson, Latest Edition
3	Donald R. Cooper and Pamela S. Schindler	Business Research Methods	TMH, Latest Edition
4	Zikmund Willium	Business Research Methods	Thomson, Latest Edition

Newspapers / Magazines / Journals:

1. Journal of Indian Business Research
2. International Journal of Statistics and Analysis
3. IIMB management review
4. Vikalpa



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Corporate Finance (CF)	Subject Code:	MGMB12202
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Overview:

This course provides a comprehensive introduction to corporate financial decision making, with a focus on making students explain the major functions of financial management. Upon completion of this course, you will be able to:

- Understand key financial management concepts and their real-world implementations
- Apply state-of-the-art frameworks towards analysing financial problems
- Develop and present a concrete financial plan

This course explores both financial theory and practice. The lecture sessions introduce you to established concepts, techniques, and frameworks to approach financial problems. The continuous evaluation of each module shall enable students to put to practice various theories and models of financial management.

Course concepts are illustrated primarily through lectures and for each module we have few exercises. These exercises are complemented with readings that further elaborate on key concepts. You will have a chance to illustrate your ability to apply the framework in this course through numerical exercises, small assignments, case-studies, quiz and mid-term, final exams.

Learning Outcomes:

The Learning Outcomes to be attained through this course are:

LO1	<i>Apply</i> the concepts of time value of money to make appropriate decisions related to various functions of finance.
LO2	<i>Determine</i> the main factors that should be considered for determining a company's financing decisions.
LO3	<i>Estimate</i> the cost of each source of capital and WACC and <i>evaluate</i> investment decisions using capital budgeting techniques.
LO4	<i>Determine</i> company's short term financing /liquidity decisions
LO5	<i>Assess</i> dividend decisions and policies of companies.

Mapping Learning Outcomes to Program Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Corporate Finance (CF)	Subject Code:	MGMB12202
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	2	2	1	1	2	2	2
LO2	3	3	2	1	2	-	2	1
LO3	3	3	2	1	2	-	2	1
LO4	3	2	2	1	1	-	2	1
LO5	3	2	2	1	1	-	1	1

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	Introduction to Corporate Finance: <ul style="list-style-type: none"> • Overview of Financial Management: <ul style="list-style-type: none"> ○ Meaning, Objectives, Role and Functions of Financial Management, Financial Goal – Profit Maximization versus Shareholders' Wealth Maximization and Agency conflicts. • Time value of money (theory and numerical): <ul style="list-style-type: none"> ○ Concepts, Compounding, Discounting • Concept and Valuation of bonds, preference shares and equity shares 	1	10	13
II	Financing Decisions: <ul style="list-style-type: none"> • Sources of long term finance (theory): <ul style="list-style-type: none"> ○ Features, advantages and limitations of Equity Shares, Preference Shares Debentures and Term loan. • Leverage (theory and numerical): <ul style="list-style-type: none"> ○ Analysing alternative financial plans: Constant EBIT and Varying EBIT, Point of indifference, Types of Leverage – Operating, Financial and Combined Leverage • Capital structure decisions (theory and numerical): 	2	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Corporate Finance (CF)	Subject Code:	MGMB12202
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> ○ NI Approach, Traditional Approach, NOI Approach & MM Hypothesis without taxes and MM hypothesis under Corporate Taxes 			
III	<p>Investment Decisions:</p> <ul style="list-style-type: none"> • Cost of Capital (theory and numerical): <ul style="list-style-type: none"> ○ Concept of Cost of Capital and its significance ○ Components of Cost of Capital <ul style="list-style-type: none"> ▪ Cost of Debt, Preference Capital and Equity Capital ○ Weighted Average Cost of Capital (WACC) • Capital Budgeting Decisions (theory and numerical) <ul style="list-style-type: none"> ○ Meaning, Features, Types and Importance of Investment Decisions ○ Discounted Cash Flow Techniques <ul style="list-style-type: none"> ○ NPV, IRR, PI, Discounted Payback ○ Non-Discounted Cash Flow Techniques <ul style="list-style-type: none"> ○ ARR, Payback period 	3	8	11
IV	<p>Liquidity and Dividend Decisions:</p> <ul style="list-style-type: none"> • Working Capital management (theory and numerical): <ul style="list-style-type: none"> ○ Concepts of Working Capital, Operating Cycle, Determinants of Working Capital, Matching, conservative and aggressive approach, Estimating Working Capital Needs. • Cash Management (numerical): <ul style="list-style-type: none"> ○ Cash forecasting through budgeting • Receivables Management (theory and numerical): <ul style="list-style-type: none"> ○ Nature and goals of credit policy, credit policy variables in brief, Optimum credit policy • Dividend and Dividend Policy (theory and numerical): <ul style="list-style-type: none"> ○ Factors affecting dividend payout and forms of dividend (only concept) ○ Dividend Models: <ul style="list-style-type: none"> ▪ Dividend Relevance model 	4, 5	12	14



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Corporate Finance (CF)	Subject Code:	MGMB12202
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none">• Walter model, Gordon model▪ Dividend Irrelevance model• MM model			
--	--	--	--	--

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, seminars, paper presentations, role plays, class participation, etc.

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	I M Pandey	Financial Management	Vikas (Latest Edition)
2	Prasanna Chandra	Financial Management, theory and Practice	McGraw - Hill (Latest Edition)



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Corporate Finance (CF)	Subject Code:	MGMB12202
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

3	M. Y. Khan and P. K. Jain	Financial Management	McGraw - Hill (Latest Edition)
4	Dr. J.B. Gupta	Strategic Financial Management	Taxmann (Latest Edition)
5	V Pattabhi Ram and S D Bala	Strategic Financial Management	Snow White (Latest Edition)

Newspapers / Magazines / Journals:

1. News Paper: Business Standard, Economic Times, Times of India
2. Journals: Finance India, Global Journal of Finance & Management, Journal of Business & Financial Affairs etc.

Web resources:

1. Websites pertaining to companies.
2. <https://www.bseindia.com/> : Official website of Bombay Stock Exchange
3. <https://www.nseindia.com/> : Official website of National Stock Exchange
4. <https://www.rbi.org.in/> : Official website of Reserve Bank of India



**S.R.LUTHRA INSTITUTE OF
MANAGEMENT**

TIME VALUE TABLE





Table A: Compound Value Factor of a Lump Sum (CFF)_t

Interest Rate

Year	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
1	1.010	1.020	1.030	1.040	1.050	1.060	1.070	1.080	1.090	1.100	1.110	1.120	1.130	1.140
2	1.020	1.040	1.061	1.082	1.103	1.124	1.145	1.166	1.188	1.210	1.232	1.254	1.277	1.300
3	1.030	1.061	1.093	1.125	1.158	1.191	1.225	1.260	1.295	1.331	1.368	1.405	1.443	1.482
4	1.041	1.082	1.126	1.170	1.216	1.262	1.311	1.360	1.412	1.464	1.518	1.574	1.630	1.689
5	1.051	1.104	1.159	1.217	1.276	1.338	1.403	1.469	1.539	1.611	1.685	1.762	1.842	1.925
6	1.062	1.126	1.194	1.265	1.340	1.419	1.501	1.587	1.677	1.772	1.870	1.974	2.082	2.195
7	1.072	1.149	1.230	1.316	1.407	1.504	1.606	1.714	1.828	1.949	2.076	2.211	2.353	2.502
8	1.083	1.172	1.267	1.369	1.477	1.594	1.718	1.851	1.993	2.144	2.305	2.476	2.658	2.853
9	1.094	1.195	1.305	1.423	1.551	1.689	1.838	1.999	2.172	2.358	2.558	2.773	3.004	3.252
10	1.105	1.219	1.344	1.480	1.629	1.791	1.967	2.159	2.367	2.594	2.839	3.105	3.395	3.707
11	1.116	1.243	1.384	1.539	1.710	1.898	2.105	2.332	2.580	2.853	3.152	3.479	3.836	4.226
12	1.127	1.268	1.426	1.601	1.796	2.012	2.252	2.518	2.813	3.138	3.498	3.896	4.335	4.818
13	1.138	1.294	1.469	1.665	1.886	2.133	2.410	2.720	3.066	3.452	3.883	4.363	4.898	5.492
14	1.149	1.319	1.513	1.732	1.980	2.261	2.579	2.937	3.342	3.797	4.310	4.887	5.535	6.261
15	1.161	1.346	1.558	1.801	2.079	2.397	2.759	3.172	3.642	4.177	4.785	5.474	6.254	7.138
16	1.173	1.373	1.605	1.873	2.183	2.540	2.952	3.426	3.970	4.595	5.311	6.130	7.067	8.137
17	1.184	1.400	1.653	1.948	2.292	2.693	3.159	3.700	4.328	5.054	5.895	6.866	7.986	9.276
18	1.196	1.428	1.702	2.026	2.407	2.854	3.380	3.996	4.717	5.560	6.544	7.690	9.024	10.575
19	1.208	1.457	1.754	2.107	2.527	3.026	3.617	4.316	5.142	6.116	7.263	8.613	10.197	12.056
20	1.220	1.486	1.806	2.191	2.653	3.207	3.870	4.661	5.604	6.727	8.062	9.646	11.523	13.743
25	1.282	1.641	2.094	2.666	3.386	4.292	5.427	6.848	8.623	10.835	13.585	17.000	21.231	26.462
30	1.348	1.811	2.427	3.243	4.322	5.743	7.612	10.063	13.268	17.449	22.892	29.960	39.116	50.950
40	1.489	2.208	3.262	4.801	7.040	10.286	14.974	21.725	31.409	45.259	65.001	93.051	132.782	188.884
50	1.645	2.692	4.384	7.107	11.467	18.420	29.457	46.902	74.358	117.391	184.565	289.002	450.736	700.233

(Contd..)



Table A Contd.

Year	Interest Rate												
	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%	30%	40%
1	1.150	1.160	1.170	1.180	1.190	1.200	1.210	1.220	1.230	1.240	1.250	1.300	1.400
2	1.323	1.346	1.369	1.392	1.416	1.440	1.464	1.488	1.513	1.538	1.563	1.690	1.960
3	1.521	1.561	1.602	1.643	1.685	1.728	1.772	1.816	1.861	1.907	1.953	2.197	2.744
4	1.749	1.811	1.874	1.939	2.005	2.074	2.144	2.215	2.289	2.364	2.441	2.856	3.842
5	2.011	2.100	2.192	2.288	2.386	2.488	2.594	2.703	2.815	2.932	3.052	3.713	5.378
6	2.313	2.436	2.565	2.700	2.840	2.986	3.138	3.297	3.463	3.635	3.815	4.827	7.530
7	2.660	2.826	3.001	3.185	3.379	3.583	3.797	4.023	4.259	4.508	4.768	6.275	10.541
8	3.059	3.278	3.511	3.759	4.021	4.300	4.595	4.908	5.239	5.590	5.960	8.157	14.758
9	3.518	3.803	4.108	4.435	4.785	5.160	5.560	5.987	6.444	6.931	7.451	10.604	20.661
10	4.046	4.411	4.807	5.234	5.695	6.192	6.727	7.305	7.926	8.594	9.313	13.786	28.925
11	4.652	5.117	5.624	6.176	6.777	7.430	8.140	8.912	9.749	10.657	11.642	17.922	40.496
12	5.350	5.936	6.580	7.288	8.064	8.916	9.850	10.872	11.991	13.215	14.552	23.298	56.694
13	6.153	6.886	7.699	8.599	9.596	10.699	11.918	13.264	14.749	16.386	18.190	30.288	79.371
14	7.076	7.988	9.007	10.147	11.420	12.839	14.421	16.182	18.141	20.319	22.737	39.374	111.170
15	8.137	9.266	10.539	11.974	13.590	15.407	17.449	19.742	22.314	25.196	28.422	51.186	155.568
16	9.358	10.748	12.330	14.129	16.172	18.488	21.114	24.086	27.446	31.243	35.527	66.542	217.795
17	10.761	12.468	14.426	16.672	19.244	22.186	25.548	29.384	33.759	38.741	44.409	86.504	304.913
18	12.375	14.463	16.879	19.673	22.901	26.623	30.913	35.849	41.523	48.039	55.511	112.455	426.879
19	14.232	16.777	19.748	23.214	27.252	31.948	37.404	43.756	51.074	59.568	69.389	146.192	597.630
20	16.367	19.461	23.106	27.393	32.429	38.338	45.259	53.358	62.821	73.864	86.736	190.050	836.683
25	32.919	40.874	50.658	62.669	77.388	95.396	117.391	144.210	176.859	216.542	264.698	705.641	4499.880
30	66.212	85.850	111.065	143.371	184.675	237.376	304.482	389.758	497.913	634.820	807.794	2619.996	24201.432
40	267.864	378.721	533.869	750.378	1051.668	1469.772	2048.400	2847.038	3946.430	5455.913	7523.164	36118.865	700037.697
50	1083.657	1670.704	2566.215	3927.357	5988.914	9100.438	13780.612	20796.561	31279.195	46890.435	70064.923	497929.223	20248916.240



Table B: Compound Value Factor of an Annuity (CVFA) of Re 1

Year	Interest Rate													
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	2.010	2.020	2.030	2.040	2.050	2.060	2.070	2.080	2.090	2.100	2.110	2.120	2.130	2.140
3	3.030	3.060	3.091	3.122	3.153	3.184	3.215	3.246	3.278	3.310	3.342	3.374	3.407	3.440
4	4.060	4.122	4.184	4.246	4.310	4.375	4.440	4.506	4.573	4.641	4.710	4.779	4.850	4.921
5	5.101	5.204	5.309	5.416	5.526	5.637	5.751	5.867	5.985	6.105	6.228	6.353	6.480	6.610
6	6.152	6.308	6.468	6.633	6.802	6.975	7.153	7.336	7.523	7.716	7.913	8.115	8.323	8.536
7	7.214	7.434	7.662	7.898	8.142	8.394	8.654	8.923	9.200	9.487	9.783	10.089	10.405	10.730
8	8.286	8.583	8.892	9.214	9.549	9.897	10.260	10.637	11.028	11.436	11.859	12.300	12.757	13.233
9	9.369	9.755	10.159	10.583	11.027	11.491	11.978	12.488	13.021	13.579	14.164	14.776	15.416	16.085
10	10.462	10.950	11.464	12.006	12.578	13.181	13.816	14.487	15.193	15.937	16.722	17.549	18.420	19.337
11	11.567	12.169	12.808	13.485	14.207	14.972	15.784	16.645	17.560	18.531	19.561	20.655	21.814	23.045
12	12.683	13.412	14.192	15.026	15.917	16.870	17.888	18.977	20.141	21.384	22.713	24.133	25.650	27.271
13	13.809	14.680	15.618	16.627	17.713	18.882	20.141	21.495	22.953	24.523	26.212	28.029	29.985	32.089
14	14.947	15.974	17.086	18.292	19.599	21.015	22.550	24.215	26.019	27.975	30.095	32.393	34.883	37.581
15	16.097	17.293	18.599	20.024	21.579	23.276	25.129	27.152	29.361	31.772	34.405	37.280	40.417	43.842
16	17.258	18.639	20.157	21.825	23.657	25.673	27.888	30.324	33.003	35.950	39.190	42.753	46.672	50.980
17	18.430	20.012	21.762	23.698	25.840	28.213	30.840	33.750	36.974	40.545	44.501	48.884	53.739	59.118
18	19.615	21.412	23.414	25.645	28.132	30.906	33.999	37.450	41.301	45.599	50.396	55.750	61.725	68.394
19	20.811	22.841	25.117	27.671	30.539	33.760	37.379	41.446	46.018	51.159	56.939	63.440	70.749	78.969
20	22.019	24.297	26.870	29.778	33.066	36.786	40.995	45.762	51.160	57.275	64.203	72.052	80.947	91.025
25	28.243	32.030	36.459	41.646	47.727	54.865	63.249	73.106	84.701	98.347	114.413	133.334	155.620	181.871
30	34.785	40.568	47.575	56.085	66.439	79.058	94.461	113.283	136.308	164.494	199.021	241.333	293.199	356.787
40	48.886	60.402	75.401	95.026	120.800	154.762	199.635	259.057	337.882	442.593	581.826	767.091	1013.704	1342.025
50	64.463	84.579	112.797	152.667	209.348	290.336	406.529	573.770	815.084	1163.909	1668.771	2400.018	3459.507	4994.521

(Contd.)



Table B Contd.

Year	Interest Rate												
	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%	30%	40%
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2	2.150	2.160	2.170	2.180	2.190	2.200	2.210	2.220	2.230	2.240	2.250	2.300	2.400
3	3.473	3.506	3.539	3.572	3.606	3.640	3.674	3.708	3.743	3.778	3.813	3.990	4.360
4	4.993	5.066	5.141	5.215	5.291	5.368	5.446	5.524	5.604	5.684	5.766	6.187	7.104
5	6.742	6.877	7.014	7.154	7.297	7.442	7.589	7.740	7.893	8.048	8.207	9.043	10.946
6	8.754	8.977	9.207	9.442	9.683	9.930	10.183	10.442	10.708	10.980	11.259	12.756	16.324
7	11.067	11.414	11.772	12.142	12.523	12.916	13.321	13.740	14.171	14.615	15.073	17.583	23.853
8	13.727	14.240	14.773	15.327	15.902	16.499	17.119	17.762	18.430	19.123	19.842	23.858	34.395
9	16.786	17.519	18.285	19.086	19.923	20.799	21.714	22.670	23.669	24.712	25.802	32.015	49.153
10	20.304	21.321	22.393	23.521	24.709	25.959	27.274	28.657	30.113	31.643	33.253	42.619	69.814
11	24.349	25.733	27.200	28.755	30.404	32.150	34.001	35.962	38.039	40.238	42.566	56.405	98.739
12	29.002	30.850	32.824	34.931	37.180	39.581	42.142	44.874	47.788	50.895	54.208	74.327	139.235
13	34.352	36.786	39.404	42.219	45.244	48.497	51.991	55.746	59.779	64.110	68.760	97.625	195.929
14	40.505	43.672	47.103	50.818	54.841	59.196	63.909	69.010	74.528	80.496	86.949	127.913	275.300
15	47.580	51.660	56.110	60.965	66.261	72.035	78.330	85.192	92.669	100.815	109.687	167.286	386.420
16	55.717	60.925	66.649	72.939	79.850	87.442	95.780	104.935	114.983	126.011	138.109	218.472	541.988
17	65.075	71.573	78.979	87.068	96.022	105.931	116.894	129.020	142.430	157.253	173.636	285.014	759.784
18	75.836	84.141	93.406	103.740	115.266	128.117	142.441	158.405	176.188	195.994	218.045	371.518	1064.697
19	88.212	98.603	110.285	123.414	138.166	154.740	173.354	194.254	217.712	244.033	273.556	483.973	1491.576
20	102.444	115.380	130.033	146.628	165.418	186.688	210.758	237.989	268.785	303.601	342.945	630.165	2089.206
25	212.793	249.214	292.105	342.603	402.042	471.981	554.242	650.955	764.605	898.092	1054.791	2348.803	11247.199
30	434.745	530.312	647.439	790.948	966.712	1181.882	1445.151	1767.081	2160.491	2640.916	3227.174	8729.985	60501.081
40	1779.090	2360.757	3134.522	4163.213	5529.829	7343.858	9749.525	12936.535	17154.046	22728.803	30088.655	120392.883	1750091.741
50	7217.716	10435.649	15089.502	21813.094	31515.336	45497.191	65617.202	94525.279	135992.154	195372.644	280255.693	1659760.743	50622288.099





Table C: Present Value Factor of a Lump Sum (PVF) of Re 1

Year	Interest Rate													
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877
2	0.980	0.961	0.943	0.925	0.907	0.890	0.873	0.857	0.842	0.826	0.812	0.797	0.783	0.769
3	0.971	0.942	0.915	0.889	0.864	0.840	0.816	0.794	0.772	0.751	0.731	0.712	0.693	0.675
4	0.961	0.924	0.888	0.855	0.823	0.792	0.763	0.735	0.708	0.683	0.659	0.636	0.613	0.592
5	0.951	0.906	0.863	0.822	0.784	0.747	0.713	0.681	0.650	0.621	0.593	0.567	0.543	0.519
6	0.942	0.888	0.837	0.790	0.746	0.705	0.666	0.630	0.596	0.564	0.535	0.507	0.480	0.456
7	0.933	0.871	0.813	0.760	0.711	0.665	0.623	0.583	0.547	0.513	0.482	0.452	0.425	0.400
8	0.923	0.853	0.789	0.731	0.677	0.627	0.582	0.540	0.502	0.467	0.434	0.404	0.376	0.351
9	0.914	0.837	0.766	0.703	0.645	0.592	0.544	0.500	0.460	0.424	0.391	0.361	0.333	0.308
10	0.905	0.820	0.744	0.676	0.614	0.558	0.508	0.463	0.422	0.386	0.352	0.322	0.295	0.270
11	0.896	0.804	0.722	0.650	0.585	0.527	0.475	0.429	0.388	0.350	0.317	0.287	0.261	0.237
12	0.887	0.788	0.701	0.625	0.557	0.497	0.444	0.397	0.356	0.319	0.286	0.257	0.231	0.208
13	0.879	0.773	0.681	0.601	0.530	0.469	0.415	0.368	0.326	0.290	0.258	0.229	0.204	0.182
14	0.870	0.758	0.661	0.577	0.505	0.442	0.388	0.340	0.299	0.263	0.232	0.205	0.181	0.160
15	0.861	0.743	0.642	0.555	0.481	0.417	0.362	0.315	0.275	0.239	0.209	0.183	0.160	0.140
16	0.853	0.728	0.623	0.534	0.458	0.394	0.339	0.292	0.252	0.218	0.188	0.163	0.141	0.123
17	0.844	0.714	0.605	0.513	0.436	0.371	0.317	0.270	0.231	0.198	0.170	0.146	0.125	0.108
18	0.836	0.700	0.587	0.494	0.416	0.350	0.296	0.250	0.212	0.180	0.153	0.130	0.111	0.095
19	0.828	0.686	0.570	0.475	0.396	0.331	0.277	0.232	0.194	0.164	0.138	0.116	0.098	0.083
20	0.820	0.673	0.554	0.456	0.377	0.312	0.258	0.215	0.178	0.149	0.124	0.104	0.087	0.073
25	0.780	0.610	0.478	0.375	0.295	0.233	0.184	0.146	0.116	0.092	0.074	0.059	0.047	0.038
30	0.742	0.552	0.412	0.308	0.231	0.174	0.131	0.099	0.075	0.057	0.044	0.033	0.026	0.020
40	0.672	0.453	0.307	0.208	0.142	0.097	0.067	0.046	0.032	0.022	0.015	0.011	0.008	0.005
50	0.608	0.372	0.228	0.141	0.087	0.054	0.034	0.021	0.013	0.009	0.005	0.003	0.002	0.001

(Contd.)



Table C Contd.

Interest Rate

704

Year	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%	30%	40%
1	0.870	0.862	0.855	0.847	0.840	0.833	0.826	0.820	0.813	0.806	0.800	0.769	0.714
2	0.756	0.743	0.731	0.718	0.706	0.694	0.683	0.672	0.661	0.650	0.640	0.592	0.510
3	0.658	0.641	0.624	0.609	0.593	0.579	0.564	0.551	0.537	0.524	0.512	0.455	0.364
4	0.572	0.552	0.534	0.516	0.499	0.482	0.467	0.451	0.437	0.423	0.410	0.350	0.260
5	0.497	0.476	0.456	0.437	0.419	0.402	0.386	0.370	0.355	0.341	0.328	0.269	0.186
6	0.432	0.410	0.390	0.370	0.352	0.335	0.319	0.303	0.289	0.275	0.262	0.207	0.133
7	0.376	0.354	0.333	0.314	0.296	0.279	0.263	0.249	0.235	0.222	0.210	0.159	0.095
8	0.327	0.305	0.285	0.266	0.249	0.233	0.218	0.204	0.191	0.179	0.168	0.123	0.068
9	0.284	0.263	0.243	0.225	0.209	0.194	0.180	0.167	0.155	0.144	0.134	0.094	0.048
10	0.247	0.227	0.208	0.191	0.176	0.162	0.149	0.137	0.126	0.116	0.107	0.073	0.035
11	0.215	0.195	0.178	0.162	0.148	0.135	0.123	0.112	0.103	0.094	0.086	0.056	0.025
12	0.187	0.168	0.152	0.137	0.124	0.112	0.102	0.092	0.083	0.076	0.069	0.043	0.018
13	0.163	0.145	0.130	0.116	0.104	0.093	0.084	0.075	0.068	0.061	0.055	0.033	0.013
14	0.141	0.125	0.111	0.099	0.088	0.078	0.069	0.062	0.055	0.049	0.044	0.025	0.009
15	0.123	0.108	0.095	0.084	0.074	0.065	0.057	0.051	0.045	0.040	0.035	0.020	0.006
16	0.107	0.093	0.081	0.071	0.062	0.054	0.047	0.042	0.036	0.032	0.028	0.015	0.005
17	0.093	0.080	0.069	0.060	0.052	0.045	0.039	0.034	0.030	0.026	0.023	0.012	0.003
18	0.081	0.069	0.059	0.051	0.044	0.038	0.032	0.028	0.024	0.021	0.018	0.009	0.002
19	0.070	0.060	0.051	0.043	0.037	0.031	0.027	0.023	0.020	0.017	0.014	0.007	0.002
20	0.061	0.051	0.043	0.037	0.031	0.026	0.022	0.019	0.016	0.014	0.012	0.005	0.001
25	0.030	0.024	0.020	0.016	0.013	0.010	0.009	0.007	0.006	0.005	0.004	0.001	0.000
30	0.015	0.012	0.009	0.007	0.005	0.004	0.003	0.003	0.002	0.002	0.001	0.000	0.000
40	0.004	0.003	0.002	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000



Table D: Present Value Factor of an Annuity (PVFA) of Re 1

Year	Interest Rate													
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%
1	0.990	0.980	0.971	0.962	0.952	0.943	0.935	0.926	0.917	0.909	0.901	0.893	0.885	0.877
2	1.970	1.942	1.913	1.886	1.859	1.833	1.808	1.783	1.759	1.736	1.713	1.690	1.668	1.647
3	2.941	2.884	2.829	2.775	2.723	2.673	2.624	2.577	2.531	2.487	2.444	2.402	2.361	2.322
4	3.902	3.808	3.717	3.630	3.546	3.465	3.387	3.312	3.240	3.170	3.102	3.037	2.974	2.914
5	4.853	4.713	4.580	4.452	4.329	4.212	4.100	3.993	3.890	3.791	3.696	3.605	3.517	3.433
6	5.795	5.601	5.417	5.242	5.076	4.917	4.767	4.623	4.486	4.355	4.231	4.111	3.998	3.889
7	6.728	6.472	6.230	6.002	5.786	5.582	5.389	5.206	5.033	4.868	4.712	4.564	4.423	4.288
8	7.652	7.325	7.020	6.733	6.463	6.210	5.971	5.747	5.535	5.335	5.146	4.968	4.799	4.639
9	8.566	8.162	7.786	7.435	7.108	6.802	6.515	6.247	5.995	5.759	5.537	5.328	5.132	4.946
10	9.471	8.983	8.530	8.111	7.722	7.360	7.024	6.710	6.418	6.145	5.889	5.650	5.426	5.216
11	10.368	9.787	9.253	8.760	8.306	7.887	7.499	7.139	6.805	6.495	6.207	5.938	5.687	5.453
12	11.258	10.575	9.954	9.385	8.863	8.384	7.943	7.536	7.161	6.814	6.492	6.194	5.918	5.660
13	12.134	11.348	10.635	9.986	9.394	8.853	8.358	7.904	7.487	7.103	6.750	6.424	6.122	5.842
14	13.004	12.106	11.296	10.563	9.899	9.295	8.745	8.244	7.786	7.367	6.982	6.628	6.302	6.002
15	13.865	12.849	11.938	11.118	10.380	9.712	9.108	8.559	8.061	7.606	7.191	6.811	6.462	6.142
16	14.718	13.578	12.561	11.652	10.838	10.106	9.447	8.851	8.313	7.824	7.379	6.974	6.604	6.265
17	15.562	14.292	13.166	12.166	11.274	10.477	9.763	9.122	8.544	8.022	7.549	7.120	6.729	6.373
18	16.398	14.992	13.754	12.659	11.690	10.828	10.059	9.372	8.756	8.201	7.702	7.250	6.840	6.467
19	17.226	15.678	14.324	13.134	12.085	11.158	10.336	9.604	8.950	8.365	7.839	7.366	6.938	6.550
20	18.046	16.351	14.877	13.590	12.462	11.470	10.594	9.818	9.129	8.514	7.963	7.469	7.025	6.623
25	22.023	19.523	17.413	15.622	14.094	12.783	11.654	10.675	9.823	9.077	8.422	7.843	7.330	6.873
30	25.808	22.396	19.600	17.292	15.372	13.765	12.409	11.258	10.274	9.427	8.694	8.055	7.496	7.003
40	32.835	27.355	23.115	19.793	17.159	15.046	13.332	11.925	10.757	9.779	8.951	8.244	7.634	7.105
50	39.196	31.424	25.730	21.482	18.256	15.762	13.801	12.233	10.962	9.915	9.042	8.304	7.675	7.133

(Contd.)





Table D Contd.

Year	Interest Rate													
	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%	30%	40%	
1	0.870	0.862	0.855	0.847	0.840	0.833	0.826	0.820	0.813	0.806	0.800	0.769	0.714	
2	1.626	1.605	1.585	1.566	1.547	1.528	1.509	1.492	1.474	1.457	1.440	1.361	1.224	
3	2.283	2.246	2.210	2.174	2.140	2.106	2.074	2.042	2.011	1.981	1.952	1.816	1.589	
4	2.855	2.798	2.743	2.690	2.639	2.589	2.540	2.494	2.448	2.404	2.362	2.166	1.849	
5	3.352	3.274	3.199	3.127	3.058	2.991	2.926	2.864	2.803	2.745	2.689	2.436	2.035	
6	3.784	3.685	3.589	3.498	3.410	3.326	3.245	3.167	3.092	3.020	2.951	2.643	2.168	
7	4.160	4.039	3.922	3.812	3.706	3.605	3.508	3.416	3.327	3.242	3.161	2.802	2.263	
8	4.487	4.344	4.207	4.078	3.954	3.837	3.726	3.619	3.518	3.421	3.329	2.925	2.331	
9	4.772	4.607	4.451	4.303	4.163	4.031	3.905	3.786	3.673	3.566	3.463	3.019	2.379	
10	5.019	4.833	4.659	4.494	4.339	4.192	4.054	3.923	3.799	3.682	3.571	3.092	2.414	
11	5.234	5.029	4.836	4.656	4.486	4.327	4.177	4.035	3.902	3.776	3.656	3.147	2.438	
12	5.421	5.197	4.988	4.793	4.611	4.439	4.278	4.127	3.985	3.851	3.725	3.190	2.456	
13	5.583	5.342	5.118	4.910	4.715	4.533	4.362	4.203	4.053	3.912	3.780	3.223	2.469	
14	5.724	5.468	5.229	5.008	4.802	4.611	4.432	4.265	4.108	3.962	3.824	3.249	2.478	
15	5.847	5.575	5.324	5.092	4.876	4.675	4.489	4.315	4.153	4.001	3.859	3.268	2.484	
16	5.954	5.668	5.405	5.162	4.938	4.730	4.536	4.357	4.189	4.033	3.887	3.283	2.489	
17	6.047	5.749	5.475	5.222	4.990	4.775	4.576	4.391	4.219	4.059	3.910	3.295	2.492	
18	6.128	5.818	5.534	5.273	5.033	4.812	4.608	4.419	4.243	4.080	3.928	3.304	2.494	
19	6.198	5.877	5.584	5.316	5.070	4.843	4.635	4.442	4.263	4.097	3.942	3.311	2.496	
20	6.259	5.929	5.628	5.353	5.101	4.870	4.657	4.460	4.279	4.110	3.954	3.316	2.497	
25	6.464	6.097	5.766	5.467	5.195	4.948	4.721	4.514	4.323	4.147	3.985	3.329	2.499	
30	6.566	6.177	5.829	5.517	5.235	4.979	4.746	4.534	4.339	4.160	3.995	3.332	2.500	
40	6.642	6.233	5.871	5.548	5.258	4.997	4.760	4.544	4.347	4.166	3.999	3.333	2.500	
50	6.661	6.246	5.880	5.554	5.262	4.999	4.762	4.545	4.348	4.167	4.000	3.333	2.500	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Entrepreneurship (ENT)	Subject Code:	MGMB11203
Subject Class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Overview:

This course provides a comprehensive introduction to entrepreneurship theory and practice.

Upon completion of this course, Students will be able to:

- To understand and imbibe an entrepreneurial mind set.
- To learn how to identify new business opportunities and ideas through self-discovery.
- Prepare Business plan including channelizing government schemes and its implication in real life.

The aim of this course is to inspire students to build an entrepreneurial mind-set. Students will learn about entrepreneurs, their entrepreneurial journey and its impact on their living country and the world.

The lecture sessions introduce students to established concepts, techniques, and frameworks to approach Entrepreneurship. They will be introduced to key characters and the DNA of an entrepreneur, and be given an opportunity to gauge their own strengths and identify gaps that need to be addressed to become a successful entrepreneur.

Students will learn basics such as opportunity discovery, prototyping, competitive analysis, and early customer insights. Further, Students will transform their business idea into the Business Model Canvas and will use it to further refine their MVP (Minimum Viable Product). They will also set up a digital presence and learn to use promotional channels and distribution channels to engage and serve their customers. Additionally, they will get started with various legal and operational aspects as well as initial funding concepts such as bootstrapping.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Entrepreneurship (ENT)	Subject Code:	MGMB11203
Subject Class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

LO1	<i>Develop awareness about entrepreneurship, entrepreneurs and entrepreneurial mind-set.</i>
LO2	<i>Develop a new business idea through creative thinking.</i>
LO3	<i>Assess the ecosystem and business environment facilitating entrepreneurship for inferring a given available opportunity for entrepreneurship.</i>
LO4	<i>Design a business plan for a new venture.</i>
LO5	<i>Simulate an official launch of a new business venture.</i>

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	2	-	2	2	1	3	3
LO2	3	3	1	2	2	2	3	3
LO3	2	2	2	2	3	1	3	2
LO4	3	3	2	1	3	2	3	2
LO5	3	3	3	1	3	2	3	2

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	Introduction to Entrepreneurship:			
	• Concept and Definitions			
	• Typology, Role			
	• Importance and its contribution in Economic Development	1, 2	10	12
	• Entrepreneurial Competencies, myths and			



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Entrepreneurship (ENT)	Subject Code:	MGMB11203
Subject Class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

	<p>mind-set of entrepreneurship</p> <ul style="list-style-type: none"> • Factor Affecting Entrepreneurial Growth • Entrepreneurial Training Methods, Process of Entrepreneurial Development <p>Forms of business organizations:</p> <ul style="list-style-type: none"> • Sole Proprietorship, Partnership, HUF, Private limited, Public limited, LLP, Franchise 			
II	<p>Idea Generation and Identification of Business Opportunities:</p> <ul style="list-style-type: none"> • Sources of business ideas • Creativity and Business Idea • Methods for generating new business ideas • Difference between a business idea and a business opportunity • Identification of entrepreneurial opportunities • Business opportunities in India 	2, 4	10	13
III	<p>New Venture Creation</p> <ul style="list-style-type: none"> • Business Plan: <ul style="list-style-type: none"> ○ Purpose, Contents ○ Presenting Business plan ○ Procedure for setting up an enterprise • Preparing Business Plan: <ul style="list-style-type: none"> ○ Business Description, Market Strategies ○ Competitive analysis ○ Design and Development Plan ○ Operations and Management Plans ○ Finance Factors <ul style="list-style-type: none"> ▪ Financing the business 	2, 4	10	13



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Entrepreneurship (ENT)	Subject Code:	MGMB11203
Subject Class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> ○ Develop the product / service ○ Building the team ○ Selection of location 			
IV	<p>Government Support for Entrepreneurship Development:</p> <ul style="list-style-type: none"> • Initiatives for Start-up India, Stand up India and Skill India • Government of Gujarat schemes for Start-up, Start-up, Stand-up India • Ease of Doing Business (EoDB) <ul style="list-style-type: none"> ○ Overview, Ranking, Determinants of EoDB <p>Official Launch of Business:</p> <ul style="list-style-type: none"> • Steps to a Successful Business Launch <ul style="list-style-type: none"> ○ Idea testing ○ Know the market ○ Understand the future Customer ○ Establish Cash Resources ○ Choose the right business structure 	3, 5	10	12

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – Semester Exam (M) - Formative	30 marks



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Entrepreneurship (ENT)	Subject Code:	MGMB11203
Subject Class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, seminars, paper presentations, role plays, class participation, etc.

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr. No.	Author	Name of the Book	Publisher	Year of Publication
1	Poornima M. Charantimath	Entrepreneurship Development Small Business Enterprises	Pearson	Second Edition
2	Donald F Kuratko and T V Rao	Entrepreneurship – A South-Asian Perspective	Cengage Learning	2016
3	Rajeev Roy	Entrepreneurship	Oxford	Latest Edition
4	Michael Schaper, Thierry Volery, Paull Weber and Kate Lewis	Entrepreneurship and Small Business	Wiley	3 rd Asia-Pacific Edition
5	Alpana Trahan	Entrepreneurship	Dreamtech Press	Latest Edition
6	Dr. Achut P.Pednekar	Entrepreneurship	Himalaya Publishing House	Latest Edition



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Entrepreneurship (ENT)	Subject Code:	MGMB11203
Subject Class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

7	Robert J Adams Jr. and Stephen Spinelli Jr.	New Venture Creation: Entrepreneurship for the 21st Century	Tata McGraw Hill	Latest Edition
8.	Robert D. Hisrich, Mathew J. Manimala, Michael P. Peters, Dean A. Shepherd	Entrepreneurship	Tata Mc Graw Hill	8 th Edition
9.	Innovation Management and New product development	Innovation Management and New product development	Pearson	Fourth edition
10	HISRICH	Entrepreneurship	Tata McGraw Hill	
11	P.Saravanel	Entrepreneurial Development	Ess Pee kay Publishing House	
12	S.S.Khanka	Entrepreneurial Development	S.Chand and Company Limited	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Human Resource Management (HRM)	Subject Code:	MGMB12204
Subject Class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Overview:

This course provides a comprehensive insights of human resource management practices, with a focus on translating human values to organizational success. Upon completion of this course, you will be able to:

- Understand key HR concepts and their real-world implementations
- Apply state-of-the-art frameworks towards analysing HR related concerns
- Develop an ability to design the HR systems for an organization.

This course explores both HR theory and practice. The lecture sessions introduce you to established concepts, techniques, and frameworks of various HR functions. The HR based projects, case study sessions and assignments shall cover a range of HR related issues including the Industrial relations approach and strategic perspective — illustrate how these concepts, techniques, and frameworks can be applied in real world situations.

Course concepts are illustrated primarily through lectures and for topics like strategic approach, industrial relations, industrial disputes and Acts we discuss one or two cases. The cases are complemented with readings that further elaborate on key issues. You will have a chance to demonstrate your ability to apply the framework in this course through case discussion, mid-term and final exams.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Human Resource Management (HRM)	Subject Code:	MGMB12204
Subject Class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

LO1	<i>Explain</i> various aspects of managing people, practices and policies of Human Resource Management for organizational success.
LO2	<i>Analyse</i> the practices and policies of recruitment, selection, learning and development, performance management and reward system in a given organization.
LO3	<i>Design</i> job analysis, performance management and reward systems for a given role.
LO4	<i>Discuss</i> IR practices within the legal ambit for reducing industrial conflicts and disputes.
LO5	<i>Examine</i> the changing role of HR in the strategic context with respect to the recent trends and contemporary issues.

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	2	3	1	2	2	1	2
LO2	3	3	2	1	3	3	1	2
LO3	2	3	3	2	2	3	2	2
LO4	2	3	2	2	2	2	1	2
LO5	2	2	3	3	2	1	1	3

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Human Resource Management (HRM)	Subject Code:	MGMB12204
Subject Class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks (Out of 50)
I	Introduction to HRM <ul style="list-style-type: none"> • Meaning, Characteristics & Importance • Functions Strategic HRM <ul style="list-style-type: none"> • Environmental factors influencing HRM • Macro and Micro Dimensions affecting HR Policy • Changing Role of HR Managers The Concept of Best Fit Employee <ul style="list-style-type: none"> • Job Analysis - Meaning, Process • Job Design – Components & factors affecting Job design • HRP – Meaning, Process & Techniques of Demand & Supply Forecasting • Recruitment & Selection – Meaning & Process 	1,2,3,5	12	14
II	Learning & Development <ul style="list-style-type: none"> • Socialization Process • Learning - Meaning, Process & Techniques • Development – Meaning & Method Performance Evaluation & Management <ul style="list-style-type: none"> • Meaning, Process & Methods Job Evaluation <ul style="list-style-type: none"> • Meaning, Process & Techniques Reward Systems <ul style="list-style-type: none"> • Meaning, Concept of Total Reward, Process of establishing pay rates 	1,2,3	12	14
III	Industrial Relations <ul style="list-style-type: none"> • Concept, Factors affecting & Approaches to Industrial relations Industrial Dispute & Resolution <ul style="list-style-type: none"> • Definition, Factors leading to dispute, Methods of Dispute resolution (Statutory & Non-Statutory) Factory Act <ul style="list-style-type: none"> • Definitions & Objectives 	1,4	9	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Human Resource Management (HRM)	Subject Code:	MGMB12204
Subject Class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> • Provisions of Health, Safety & Welfare 			
IV	<p>Social Security Benefits</p> <ul style="list-style-type: none"> • Overview of Social Security Benefits applicable in India i.e. Employee Provident Fund, Employee State Insurance, Maternity Benefit, Payment of Gratuity <p>Contemporary Issues</p> <ul style="list-style-type: none"> • Workforce Diversity <ul style="list-style-type: none"> ○ Meaning, Challenges & Strategies to manage diversity • Talent Management <ul style="list-style-type: none"> ○ Meaning, Life cycle and Initiatives • Quality of Work Life <ul style="list-style-type: none"> ○ Meaning, Concept, Techniques to improve QWL • Competency Mapping <ul style="list-style-type: none"> ○ Meaning & process • Knowledge Management <ul style="list-style-type: none"> ○ Meaning & process 	1,4,5	7	10

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – Semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, seminars, paper presentations, role plays, class participation, etc.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Human Resource Management (HRM)	Subject Code:	MGMB12204
Subject Class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Armstrong's handbook of human resource management practice.	Armstrong, M., & Taylor, S.	2020
2	Human resource management: Text and cases.	Aswathappa, K.	Tata McGraw-Hill Education. (2013)
3	Human Resource Management	Dessler, G., & Varrkey, B.	15e. Pearson Education India.
4	Human Resource Management.	Durai, P. (2011).	Pearson Education India.
5	Human resource management: Text & cases.	Sharon, P., & Swapnalekha, B.	Vikas Publishing House (2015).
6	Industrial Relations, Trade Unions and Labour Legislation.	Sinha, P. R. N., Sinha, I. B., & Shekhar, S. P. (2017).	Pearson Education India (2017).

Newspapers / Magazines / Journals:

- Harvard Business Review
- People Matters
- Human Capital
- Perfect Professional
- HRM Review
- South Asian Journal of Human Resource Management
- Asian Journal of Management Case



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	International Business (IB)	Subject Code:	MGMB11205
Subject class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Overview:

This course provides a comprehensive understanding of the importance of international business in modern times. This course will enhance knowledge, skills, and analytical ability to understand the global business environment. At the end of successful completion of course, you will able to:

- Examine business issues to be addressed in Global Business
- Apply knowledge in the framing of effective business strategies
- Create and execute a business plan in the international market

The classroom lecturing sessions aim to develop clarity in fundamental concepts, trade theories, and frameworks to assess international business problems. The case study sessions – in the areas of macro business environments, trade theories, cross-national groups, and foreign exchange exemplify how these international business concepts can be helpful in real-time.

Course concepts are discussed mainly through lectures by interacting teaching with practical examples. The case study provides the opportunity to analyze the issues or problems and provide creative solutions. Also, news reading activities, videos, international business articles, mid-term and final exams will provide a platform to showcase your contribution to this interactive learning process.

Learning Outcomes:

The Learning Outcomes to be attained through this course are:

LO1	<i>Analyze</i> the issues, challenges, and opportunities in the business domain to achieve its global objectives.
LO2	<i>Determine</i> the effect of international trade theories, influencing the role of government and develop effective ethical business strategies.
LO3	<i>Discover</i> the importance of institutions that deal with foreign exchange and its impact on current and future business practices.
LO4	<i>Create</i> business plans and functional strategies to lead business more competitive in the global world.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	International Business (IB)	Subject Code:	MGMB11205
Subject class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

Mapping Learning Outcomes to Program Outcomes:

The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	3	-	3	-	-	3	3
LO2	3	3	3	3	1	3	3	3
LO3	2	2	2	3	1	-	3	3
LO4	2	2	3	3	3	1	3	3

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	<p>An Overview of International Business:</p> <ul style="list-style-type: none"> • Meaning and Goal of International Business • International Business Approaches (EPRG Framework) • Stages of Internationalization • Difference between Domestic Business and International Business • Modes of Operations in International Business <p>Globalization:</p> <ul style="list-style-type: none"> • Difference between International business and Global Business. • Factors driving globalization <p>Global Business Environment:</p> <ul style="list-style-type: none"> • Cultural Environment <ul style="list-style-type: none"> ▪ People, nation, languages, religion, behavioural practices, communications • Political Environment 	1, 4	12	13



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	International Business (IB)	Subject Code:	MGMB11205
Subject class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> ▪ Individualism v/s collectivism ▪ Political ideology ▪ Political risk • Legal Environment <ul style="list-style-type: none"> ▪ Types of legal systems ▪ Legal issues in international business • Economic Environment <ul style="list-style-type: none"> ▪ Types of economic systems ▪ Economic analysis – inflation, unemployment, debt, income distribution, poverty, balance of payments • Technological Environment <ul style="list-style-type: none"> ▪ Technological innovations ▪ Security risks and mishaps 			
II	<p>International Trade Theories:</p> <ul style="list-style-type: none"> • Classical Trade Theories <ul style="list-style-type: none"> ▪ Factor-mobility theory ▪ Mercantilism, neo-mercantilism ▪ Theory of absolute advantage ▪ Theory of comparative advantage • Modern Trade Theories <ul style="list-style-type: none"> ▪ Product Life Cycle theory ▪ Porter's Diamond theory of national advantage ▪ Country similarity theory <p>Government Trade:</p> <ul style="list-style-type: none"> • Government intervention, Rationales for intervention • Instruments of trade control • Tariff and non-tariff barriers 	1, 2	10	13



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	International Business (IB)	Subject Code:	MGMB11205
Subject class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

	Trade Agreements and Cross-national cooperation: <ul style="list-style-type: none"> • WTO • Regional economic integration: EU, NAFTA, ASEAN, BRICS, SAARC 			
III	Foreign Exchange: <ul style="list-style-type: none"> • Meaning, Players, major foreign exchange markets • Business implications of exchange-rate changes Country evaluation and selection: <ul style="list-style-type: none"> • Information in scanning • Collecting and analyzing data Strategic framework: <ul style="list-style-type: none"> • Integration versus local responsiveness • Types of strategy – international, multi-domestic, global, transnational 	3	10	12
IV	Marketing Globally: <ul style="list-style-type: none"> • Marketing strategies • Product, Price, Place, Promotion strategies International HRM: <ul style="list-style-type: none"> • HRM and the global company • Expatriate – Perspective, managing expatriates Global Manufacturing: <ul style="list-style-type: none"> • Global supply chain strategies • Supplier networks Ethical Consideration in International Business	1, 4	8	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	International Business (IB)	Subject Code:	MGMB11205
Subject class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid-semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation includes news reading activities, quizzes, assignments, presentations, and class participation shall be conducted to assess the students through the semester.

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	International Business (IB)	Subject Code:	MGMB11205
Subject class:	Core Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	International Business – Environments and Operations	John D. Daniels, Lee H. Radebaugh, Daniel P. Sullivan, Prashant Salwan	Pearson, 15th (2016)
2	International Business: Text and Cases	P. Subba Rao	Himalaya, Latest Edition
3	International Business	Charles Hill, Arun Kumar Jain	McGraw Hill, 10th
4	Global Business	Mike W. Peng and Deepak K. Srivastava	Cengage, Latest Edition
5	International Business	Simon Collison, Rajneesh Narula, Alan M. Rugman	Trans Atlantic, 2016

Newspapers / Magazines / Journals:

1. Economic Times
2. Times of India
3. Foreign Trade Review
4. Economic & Political Weekly
5. Journal of International Business Studies
6. Journal of International Business
7. EXIM India



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Marketing Management (MM)	Subject Code:	MGMB12206
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Overview:

This course provides a comprehensive introduction to contemporary marketing practices, with a focus on turning technologies into market value. Upon completion of this course, you will be able to:

- Understand key marketing concepts and their real-world implementations
- Apply state-of-the-art frameworks towards analysing marketing problems
- Develop and present a concrete marketing plan

This course explores both marketing theory and practice. The lecture sessions introduce you to established concepts, techniques, and frameworks to approach marketing problems. The case study sessions — which cover a range of products from home video game systems, fashion accessories, traditional retailers, to sports services — illustrate how these marketing concepts, techniques, and frameworks can be applied in real world situations.

Course concepts are illustrated primarily through lectures and for each topic we discuss one or two cases. The cases are complemented with readings that further elaborate on key concepts. You will have a chance to illustrate your ability to apply the framework in this course through case discussion, case write-ups, and mid-term, final exams.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	Analyse the business environment to identify the needs of the markets by classifying them into segments.
LO2	Formulate a marketing plan including targeting, positioning, marketing objectives, marketing mix strategies, budgetary considerations and evaluation criteria.
LO3	Deduce the global nature of marketing and design relevant strategies to operate effectively in international settings
LO4	Prioritize the ethical and environmental concerns linked to marketing activities while formulating marketing strategies.
LO5	Build and improve on the ability to compile and communicate marketing information persuasively and justify marketing strategies and advocate a strategically informed position when considering marketing plan implementation.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Marketing Management (MM)	Subject Code:	MGMB12206
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	1	1	2	-	-	2	2
LO2	2	3	2	1	-	2	3	2
LO3	-	-	2	3	-	2	2	1
LO4	1	2	3	-	-	3	2	2
LO5	-	2	3	-	-	1	2	2

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	Introduction to Marketing Management <ul style="list-style-type: none"> • Definition, Scope, Core Concepts • Basic 4 P's of Marketing Mix & Updated P's of Marketing Mix • Company's Orientation towards Marketplace 	1, 2, 5	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Marketing Management (MM)	Subject Code:	MGMB12206
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> • Marketing as a value delivery process • Content of a Marketing Plan (briefly) <p>Capturing Marketing Insights</p> <ul style="list-style-type: none"> • Analyzing the macro-environment (briefly) <p>Creating Customer Value</p> <ul style="list-style-type: none"> • Customer Perceived value <p>Understanding Consumers' Markets</p> <ul style="list-style-type: none"> • Factors affecting consumer buying Behavior • Consumer Buying Decision Process • Business v/s consumer markets 			
II	<p>Business v/s consumer markets</p> <ul style="list-style-type: none"> • Segmentation: Bases of Segmenting Consumer Markets • Targeting: Effective segmentation criteria, evaluating and selecting the market segments • Positioning: Developing and establishing Brand Positioning, Differentiation strategies <p>Dealing with Competition</p> <ul style="list-style-type: none"> • Competitive Strategies (Leaders, Challengers, Followers, Nichers), Product Life Cycle (PLC) Strategies <p>Developing Product Strategy</p> <ul style="list-style-type: none"> • Product characteristics and Classification, Product hierarchy, Product system and mix, Product Line and Length decisions, Packaging, Labeling and Warranties 	1, 2, 5	10	13
III	<p>New Product Development</p> <ul style="list-style-type: none"> • Process & Challenges 	3,4,5	10	13



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Marketing Management (MM)	Subject Code:	MGMB12206
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

	<p>Brand Management</p> <ul style="list-style-type: none"> • Brand and Branding concept • Brand persona, Brand elements and element naming • Devising Branding Strategies <ul style="list-style-type: none"> o Branding decisions o Co-branding and ingredient branding o Brand extensions <p>Developing Services: Definition, categories, Distinctive Characteristics, SERVQUAL</p> <p>Pricing Decisions: Consumer Psychology and Pricing, Setting up the price, Price Adaptation and Strategies</p>			
IV	<p>Managing Distribution Channels</p> <ul style="list-style-type: none"> • Marketing Channels: Role, Importance <ul style="list-style-type: none"> o Design & Management Decisions • Retailing, Wholesaling and Logistics Management <p>Managing Marketing Communications</p> <ul style="list-style-type: none"> • Role of Marketing Communication, Developing Effective Communication, Managing IMC <p>Managing Mass Communications:</p> <ul style="list-style-type: none"> • Advertising (5 M's) • Sales Promotions (Major sales promotion tools) • Events, Experiences (Events, Experiences) • Public Relationship (Functions and PR decisions, Tools in marketing PR) <p>Managing Personal Communications</p> <ul style="list-style-type: none"> • Direct Marketing (Benefits, different direct marketing channels) 	4,5	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Marketing Management (MM)	Subject Code:	MGMB12206
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none">• Interactive Marketing (Advantages and disadvantages, Interactive marketing communication options)• Word-of-mouth (Platforms – Social Media, Viral marketing, opinion leaders)• Personal Selling (Major steps in effective selling)			
--	---	--	--	--

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, seminars, paper presentations, role plays, class participation, etc.

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Marketing Management (MM)	Subject Code:	MGMB12206
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Marketing Management -A South Asian Perspective	Philip Kotler, Keller, Koshy and Jha	Pearson, Latest edition
2	Marketing Management	Arun Kumar and Meenakshi	Vikas publication 2012
3	Marketing Management	Rajan Saxena	Tata Mc Graw Hill, 2012

Additional Readings:

1	Contagious: Why Things Catch On	Jonah Berger	Simon & Schuster, NY, 2016
2	Positioning: The Battle for Your Mind	Al Ries and Jack Trout	McGraw Hill Education; 2nd ed. edition, 2001
3	The Power of Visual Storytelling: How to Use Visuals, Videos, and Social Media to Market Your Brand	Ekaterina Walter and Jessica Gioglio	Kindle Edition, 2014

Newspapers / Magazines / Journals:

1. Journal of Marketing
2. Economic Times – Brand Equity

Web resources:

1. <https://www.academyofindianmarketing.org/> - Academy of Indian Marketing



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Production and Operations Management (POM)	Subject Code:	MGMB12207
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Course Overview:

This course emphasizes the concepts and practices of production and operations management in contemporary organizations. It is designed to highlight the practical and applied techniques of facility location and layout, aggregate production planning, materials requirement planning, scheduling, inventory management. It deals with methods for quality control which can improve the organization's quality and productivity. It helps students to understand how production managers design, use, manage and improve systems and processes to create value to their customers effectively and efficiently.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	<i>Analyse</i> contemporary production and operation management practices for a given industry
LO2	<i>Compare and contrast</i> facility planning by making location and layout decisions for a manufacturing or service facility.
LO3	<i>Analyze</i> and select the most appropriate methods and tools for the solution of problems related to production planning, shop floor scheduling, inventory control and project management.
LO4	<i>Evaluate</i> quality control measures and safety measures for production and operations systems
LO5	<i>Justify</i> the application of concepts of production and operations management in various industries



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Production and Operations Management (POM)	Subject Code:	MGMB12207
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	3	-	1	-	-	1	1
LO2	2	2	-	3	-	1	2	1
LO3	1	3	-	-	-	-	2	1
LO4	1	3	-	2	-	2	-	1
LO5	-	2	3	1	3	-	3	3

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	<p>Introduction of Production & Operation Management:</p> <ul style="list-style-type: none"> • System and function view of organizations, scope • Products and services, Transformation process • Process design-different types of process with its merits and demerits, process performance and evaluation etc. • Product design; types of products designs with merits and demerits <p>Facility location:</p> <ul style="list-style-type: none"> • Introduction • Operations strategies for multiple facilities • Factors affecting facility location planning for domestic and foreign operations 	1, 2	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Production and Operations Management (POM)	Subject Code:	MGMB12207
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> • Factor and location rating • Break even analysis • Simple Median Model • Centre of Gravity model • Ardalan Heuristic for location planning of service facility 			
II	<p>Plant Layout:</p> <ul style="list-style-type: none"> • Objectives • Different types of layout. • Assembly line balancing <p>Aggregate Production Planning (APP):</p> <ul style="list-style-type: none"> • Objectives • Strategies and cost of APP • Master production schedule • Rough cut capacity planning <p>Material Requirement Planning (MRP):</p> <ul style="list-style-type: none"> • Objectives and examples <p>Inventory Management:</p> <ul style="list-style-type: none"> • Introduction • Uses of Inventory • Role of other functional departments • Types of costs • Examples 	2, 3	12	14
III	<p>Operations scheduling:</p> <ul style="list-style-type: none"> • Definition, Objectives, Types • Sequencing (n-jobs on m machine) • Assignment Problems <p>Queuing systems/Waiting Line analysis:</p>	3, 5	10	12



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Production and Operations Management (POM)	Subject Code:	MGMB12207
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

	<ul style="list-style-type: none"> • M/M/1 model <p>Project management:</p> <ul style="list-style-type: none"> • Project scheduling by using network PERT/CPM • Crashing of project 			
IV	<p>Quality management:</p> <ul style="list-style-type: none"> • Definition, experts' views on quality • Dimensions of quality • Cost of quality • Statistical process control, control charts • Total quality management (TQM), Six sigma, ISO 9000 and other ISO series (Overview) • Just in Time production system Industrial safety 	4, 5	8	12

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50 marks
Continuous Evaluation (CE) - Formative	40 marks
Mid – semester Exam (M) - Formative	30 marks

Semester End Exam:

The 2-hour Semester end exam shall be of 50 marks and shall include all topics, discussions and lectures covered during the semester.

Continuous Evaluation:

Continuous evaluation shall assess the student throughout the semester. The subject faculty shall assess the students through various tools such as quizzes, case discussions, class room activities, seminars, paper presentations, role plays, class participation, etc.



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Production and Operations Management (POM)	Subject Code:	MGMB12207
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

Mid-Semester Exam:

The 1-hour Mid – Semester Exam shall be of 30 marks and shall be conducted half-way through the semester.

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Kanishka Bedi	Production and Operation Management	Oxford, Latest
2	Roberta S. Russell, Bernard W. Taylor	Operations and Supply Chain Management	Wiley, Latest
3	Chase R. B., Jacobs, F. R., Aquilano, N. J. and Agarwal N. K.,	Operations Management for Competitive Advantage	TMH, Latest
4	Arun Kumar, N. MeenakshiP.	Production and Operation Management	Cengage, Latest
5	Heizer, Jay and Render, Barry	Operations Management	Pearson, Latest
6	Elwood S. Buffa and Rakesh K. Sarin	Modern Production and Operations Management	Wiley, Latest
7	David A. Collier, James R. Evans and KunalGanguly	Operation Management	Cengage, Latest
8	S. A. Chunawala, Dr. R. Patel	Production and Operations Management	Himalaya, Latest
9	Martin K. Starr	Production and Operation	Cengage, Latest

Newspapers / Magazines / Journals:



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Production and Operations Management (POM)	Subject Code:	MGMB12207
Subject class:	Foundation Course	Semester:	II
Credits:	04	Contact Hours:	40

1. International Journal of Production Economics
2. Journal of Production Research and Management
3. Journal of Operations Management
4. International Journal of Advanced Operations Management
5. International Journal of Operations & Production Management



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Professional Grooming Skills (PGS)	Subject Code:	MGMB10200
Subject class:	Liberal Studies and Life Skills Course	Semester:	II
Credits:	0	Contact Hours:	20

Course Overview:

This course provides a brief idea about three different dimensions of Professional and Life skills: Career building, Design thinking and Community sensitisation. Under the subject, it is expected that the students are equipped with

- Ability to solve mathematical, logical problems along with the basic information about the general and business world
- Their resume in interactive format
- Ability to learn and understand about design thinking as an effective problem solving approach
- Sensitisation towards social and community issues and play their role for solving the same

This course not only makes the students think about their career but also think out the box through design thinking and comes out as a sensible human begin through their understanding about the social and community issue and their contribution to be helping hand in solving the same.

Course concepts are very practical in nature and the students will get an opportunity to showcase their ability and learning from the course in terms of class quiz, descriptive examination, actual interactive resume and community related field work.

Learning Outcomes:

Learning Outcomes are explicit statements of what a learner is expected to know / do / value at the completion of a unit of study. Learning Outcomes state both – the substance of learning and how will the learning be attained. They help learners understand the importance of the information and what they will gain from their engagement with the learning activity. The Learning Outcomes to be attained through this course are:

LO1	Ability to understand mathematical, logical and verbal problems and approach to solve the same along with developing the habit to accumulate General and Business knowledge
LO2	Apply the basic concepts of resume and make an interactive resume for corporates



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Professional Grooming Skills (PGS)	Subject Code:	MGMB10200
Subject class:	Liberal Studies and Life Skills Course	Semester:	II
Credits:	0	Contact Hours:	20

LO3	Ability to learn and understand about design thinking as an effective problem solving approach
------------	---

Mapping Learning Outcomes to Program Outcomes:

Outcome mapping (LOs to POs) facilitates students to explore how they can meet Program Outcomes at the course level. The Outcome mapping for the course is as under:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	3	---	---	---	---	---	2
LO2	3	---	3	---	---	---	---	1
LO3	3	1	1	---	---	---	---	3

(3 – High correlation, 2 – Medium correlation, 1 – Low correlation, ---- - No correlation)

Course Content:

Module	Module Contents	Learning Outcomes	Contact Hours	Marks
I	Aptitude Test <ul style="list-style-type: none"> • Mathematical Aptitude <ul style="list-style-type: none"> - Approach to solve Mathematical problem - Basic BODMAS Rule • Logical Reasoning <ul style="list-style-type: none"> - Approach for Logical reasoning - Seating arrangement - Direction knowledge • Verbal Ability <ul style="list-style-type: none"> - Approach for Para reading and conclusion - Basics of English grammar and tenses 	Ability to understand mathematical, logical and verbal problems and approach to solve the same along with developing the habit to accumulate General and Business knowledge	5	15



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Professional Grooming Skills (PGS)	Subject Code:	MGMB10200
Subject class:	Liberal Studies and Life Skills Course	Semester:	II
Credits:	0	Contact Hours:	20

	<ul style="list-style-type: none"> • General and Business Awareness <ul style="list-style-type: none"> - Introduction of General awareness and sources • Introduction of business awareness and sources 			
II	Resume Making <ul style="list-style-type: none"> • Essentials of Resume • Resume formats (Templets) and inclusions • Interactive Resume (Resume making using Infographics) • Video Resume 	Apply the basic concepts of resume and make an interactive resume for corporates	5	17
III	Design Thinking <ul style="list-style-type: none"> • Understanding of Design Thinking <ul style="list-style-type: none"> - Define, Meaning, Characteristics and Approaches • Importance of Design Thinking in the Management <ul style="list-style-type: none"> - Design Thinking and Functional Areas of Management • The Process of Design Thinking <ul style="list-style-type: none"> - The 5 Step Process of Design Thinking (Stanford d. School) • Traits of a good Design Thinker <ul style="list-style-type: none"> - How to become a good Design Thinker? 	Ability to learn and understand about design thinking as an effective problem solving approach	5	18



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Subject:	Professional Grooming Skills (PGS)	Subject Code:	MGMB10200
Subject class:	Liberal Studies and Life Skills Course	Semester:	II
Credits:	0	Contact Hours:	20

<ul style="list-style-type: none">• Application of Design Thinking in Problem Solving Situation<ul style="list-style-type: none">- Problem Solving through applying Design Thinking based on some situation or a case.			
--	--	--	--

Grading:

Component	Weightage
Semester End Exam (SE) - Summative	50
Continuous Evaluation (CE) – Formative	-
Mid – semester Exam (M) – Formative	-

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Quantitative Aptitude	Dr. R. S. Agarwal	S. Chand - Latest Edition
2	Teach Yourself Quantitative Aptitude	Arun Sharma	McGraw Hill – Latest Edition
3	Fast Track Objective Arithmetic	Rajesh Varma	Arihant Publication- Latest Edition

Websites:

1. www.indiabix.com
2. www.lofoya.com
3. www.readbix.com
4. www.canva.com
5. www.renderforest.com



T O E
ODD SEMESTER



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Business Leadership	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Odd
Credits	02	Contact Hours:	30

Course Overview:

To be successful in today's complex business environment, leaders need to have an in-depth understanding of business, management and leadership capabilities to effectively influence and direct individuals and groups to meet organizational goals. The course aims to develop an understanding of leadership concepts, processes, styles and behaviour; identify, develop and build leadership capabilities; and develop an ongoing individual plan to continue to strengthen those capabilities.

Course concepts are illustrated primarily through lectures and each topic will be discussed with case study and shall also undertake Self-Assessment Tools to understand the leadership styles of individuals. This is complemented with readings that further elaborate on key concepts. Students' will have a chance to demonstrate their ability to apply the framework in this course through case discussion and other assessment methods.

Course Content:

Module	Module Contents	Contact Hours	Marks
I	Who is a Leader? Understanding Leadership Style through various Leadership Theories	15	
II	Developing Leadership Skill Leadership Styles of Indian Manager Women & leadership	15	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Business Leadership	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Odd
Credits	02	Contact Hours:	30

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Effective Leadership	Achua, Lussier	Cengage, Latest Edition
2	Leadership in Organisation	Gary Yukl	Pearson, Latest Edition
3	Introduction to Leadership, Concepts & practices	Peter G. Northouse	Sage, Latest Edition

Newspapers / Magazines / Journals:

- Harvard Business Review
- Journal of Leadership & Organizational Studies
- Journal of Leadership Studies
- Leadership
- Leadership & Organizational Development Journal
- People Matters



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Macroeconomics	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Odd
Credits:	02	Contact Hours:	30

Course Overview:

This course provides a basic understanding of different aspect of macroeconomics. This course helps learner to know how the economy as a whole works. The learner of this course will understand the potential of economic policy and its limitation.

Upon completion of this course, the learner will be able to:

- Understand the basic variables of macroeconomics
- Analyse and understand the economic policies of the government

In this course, the learner will explore the key aspects of macroeconomics and gain understanding of functioning of a whole economy.

Course concepts are aimed to be illustrated primarily through lectures and demonstrations. The classes are complemented with readings that further elaboration on the key concepts. Learners will have a chance to illustrate their ability to apply the learning of this course through discussions, class tests, and other assessment methods.

Course Content:

Module	Module Contents	Contact Hours	Marks
I	<ul style="list-style-type: none">• Basics of Macroeconomics and its variables<ul style="list-style-type: none">• Meaning of Macroeconomics• Difference between Microeconomics and Macroeconomics• Basic Understanding of macroeconomics variables• GDP, Inflation Rate (CPI/WPI), Unemployment Rate, Poverty, Exchange Rate	15	
II	<ul style="list-style-type: none">• Economic Growth and Role of Government<ul style="list-style-type: none">• National Income & Circular flow diagram• Monetary System of India• Trade Balance• Overview of Government of India's Budget• Recent Initiatives of the Government	15	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Macroeconomics	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Odd
Credits:	02	Contact Hours:	30

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1.	Managerial Economics: Theory & Applications	Dr D. M. Mithani	Himalaya
2.	Economics: Principles & Applications	Gregory Mankiw	Cengage

Newspapers / Magazines / Journals:

1. Business Standard/Economic Times/Financial Times/ Financial Express/
2. Economic & Political Weekly
3. Asian Journal of Research in Business Economics
4. Indian Journal of Economics and Development

Web resources:

1. <https://economictimes.indiatimes.com/> - The Economic Times
2. <https://www.business-standard.com/> - Business standard
3. <https://www.indexmundi.com/> - IndexMundi – Country Facts
4. <https://data.worldbank.org/> - Global Development Data – Free and Open Access



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Principles of Management	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Odd
Credits:	02	Contact Hours:	30

Course Overview:

This course provides a comprehensive introduction to the characteristics of proper management by identifying what successful managers do and how they do it. Understanding how managers work is just as beneficial for the subordinate employee as it is for the manager.

Upon completion of this course, you will be able to:

- Understand the fundamentals of management
- Understand the levels of an organization at which management is practiced

In this course, you will explore the tasks that today's managers perform and delve into the key knowledge areas that managers need to master in order to run successful and profitable businesses.

Course concepts are illustrated primarily through lectures and for each topic we discuss one or two cases. The cases are complemented with readings that further elaborate on key concepts. You will have a chance to illustrate your ability to apply the framework in this course through case discussion, case write-ups, and other assessment methods.

Course Content:

Module	Module Contents	Contact Hours	Marks
I	<ul style="list-style-type: none">• What is Management?• Role of a manager• Levels of management<ul style="list-style-type: none">○ Top, middle, bottom○ Strategic, tactical, operational• Scientific management framework by Frederick Taylor	15	
II	<ul style="list-style-type: none">• Henry Fayol's Principles of Management• Planning, Organizing, Staffing, leading and controlling	15	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Principles of Management	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Odd
Credits:	02	Contact Hours:	30

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1.	Principles of Management	Harold Koontz	Tata McGraw-Hill, Latest edition
2.	Principles of Management	Tripathy PC, Reddy PN	Tata McGraw-Hill, Latest edition
3.	Management , Text & Cases	Rao VSP	Latest edition
4.	Principles and Practices of Management	Prasad L M	Sultan and Chand Sons, Latest edition

Newspapers / Magazines / Journals:

1. Business and Management Journal
2. Prabandhan – Indian Journal of Management
3. SCMS Journal of Indian Management

Web resources:

1. <https://www.mindtools.com/pages/article/henri-fayol.htm> - Henri Fayol's Principles of Management
2. <https://www.uaqc.edu/blog/5-principles-of-great-management> - 5 Principles of Great Management
3. <http://egyankosh.ac.in/bitstream/123456789/35874/5/Unit-1.pdf> - Principles and Functions of Management



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Professional Ethics	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Odd
Credits:	02	Contact Hours:	30

Course Overview:

The practise of moral values and ethics is not just an abstract fad but a social necessity. Professionals from different walks of life have a greater responsibility to undertake corrective action. Professionals are required to practice value based ethical behaviour in their professional and personal lives to achieve perpetual prosperity and happiness. It is essential for professionals in any field to have an understanding of the ethical problems and principles in their field. Professional ethics, inculcated and practised, can go a long way in setting things right. For this reason, it is also important that students from various streams are sensitized to societal issues and made aware of morals, social values and work ethics. They also need to be prepared to face ethical dilemmas in their professional lives.

Upon completion of this course, you will be able to:

- Will learn the major elements of professional ethical theories
- Will be able to analyze and present results of complex ethics cases

In this course, the general principles of professional ethics will be examined, as well as the distinctive problems of the different fields.

Course concepts are illustrated primarily through lectures and for each topic we discuss one or two cases. The cases are complemented with readings that further elaborate on key concepts. You will have a chance to illustrate your ability to apply the framework in this course through case discussion, case write-ups, and other assessment methods.

Course Content:

Module	Module Contents	Contact Hours	Marks
I	Ethical Concepts and Theories impacting business environment- - Concepts: Honesty, Trustworthiness, Loyalty, Integrity, Justice, Equality, and Respect	15	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Professional Ethics	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Odd
Credits:	02	Contact Hours:	30

	<ul style="list-style-type: none"> - Theories: Deontology, Utilitarianism, Rights, and Virtue Work place Ethics: <ul style="list-style-type: none"> - Views on Managerial Ethics - Ethical issues at workplace - Ethical Dilemmas at work place- Sources and Resolutions • Whistle Blowing 		
II	Profession & professionalism <ul style="list-style-type: none"> - Professional responsibilities and rights - Professional ethics and principles of professional ethics - Internal regulation & Statutory regulation - Professional codes of conduct - Importance of professional ethics 	15	

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Professional Ethics	R Subramaniam	Latest Edition, Oxford University Press
2	Ethics in Business and Corporate Governance	S K Mandal	Latest Edition, Tata McGraw Hill
3	Business Ethics: An Indian Perspective	A.C. Fernando	Latest Edition, Pearson

Newspapers / Magazines / Journals:

1. **Business and Society Review**

Web resources:

1. **Ethics Unwrapped Videos:** <https://ethicsunwrapped.utexas.edu/>
2. https://books.google.co.in/books?hl=en&lr=&id=Kmj6DwAAQBAJ&oi=fnd&pg=PP1&dq=book+on+professional+ethics&ots=qComX0hIMd&sig=x7QemnvaPgfMh8YjskteQgqLHEs&redir_esc=y#v=onepage&q&f=false



TOE
EVEN SEMESTER



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Basics of Research	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Even
Credits:	02	Contact Hours:	30

Course Overview:

This course shall enable students to understand and identify research designs, methodologies and analysis techniques. It also provides them with experience in designing questionnaires and report writing. Students shall be in a position to conduct the independent research with suitable research design and methodologies.

The course delivery consists of lecture sessions to make you understand basic concepts and techniques, and ongoing real-life project in order to have application of theoretical concepts.

Course Content:

Module	Module Contents	Contact Hours	Marks
I	Business Research Process – Stage I <ul style="list-style-type: none">• Problem Identification• Management Questions & Objectives• Descriptive research – survey• Sampling Design	15	
II	Business Research Process – Stage II <ul style="list-style-type: none">• Data collection tool (Questionnaire)• Data Analysis and Interpretation (Descriptive statistics)• Report Writing	15	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Basics of Research	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Even
Credits:	02	Contact Hours:	30

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	Naval Bajpai	Business Research Methods	Pearson, Latest Edition
2	Naresh Malhotra and Satyabhusan Dash	Marketing Research – An applied orientation	Pearson, Latest Edition
3	Donald R. Cooper and Pamela S. Schindler	Business Research Methods	TMH, Latest Edition

Newspapers / Magazines / Journals:

1. Journal of Indian Business Research
2. International Journal of Statistics and Analysis
3. IIMB management review
4. Vikalpa



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	E-Business	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Even
Credits:	02	Contact Hours:	30

Course Overview:

The course is designed to make students acquainted with basic e-business domain concepts, and different forms and ways of electronic business through examples of good practices, and to present modern business challenges and technical aspects of electronic business. It will provide overview of e-business and their related issues. It covers many topics in e-business, including basic knowledge of e-business and the related information technology, e-business models, challenges, infrastructure and many more. Besides, for the business usage, this course also includes the understanding to unbundling the corporation, e-business model ontology and the implementation of e-business in practice.

After the study of e-Business, students should understand the basic definition and knowledge hierarchy to e-Business, and understand the related operation processes, marketing techniques and technological issues of e-Business systems.

Course Content:

Module	Module Contents	Contact Hours	Marks
I	<ul style="list-style-type: none">• Introduction to E-Business and E-Commerce• Evolution of e- business, benefits and limitations• E- commerce v/s E- business• Characteristics of e- business• e- business – Challenges & Solutions• E-Business applications, E-Procurement and E-Payment Systems• The Impact of E-Business on Different Fields and Industries	15	
II	<ul style="list-style-type: none">• e- Business Infrastructure & e- Environment• Internet Marketing and e-Tailing E-business technology• Key elements of the e-business environment• E-business markets Models• E-marketing and e-CRM• Contemporary Issues in e- Business (Reliability, Quality, Trust, Security, Privacy, Virus, Design & implementation issues)	15	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	E-Business	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Even
Credits:	02	Contact Hours:	30

	<ul style="list-style-type: none">• Ethical issue in e-Business• Future of e-Business		
--	--	--	--

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	e- Business & e – Commerce Management: Strategy, Implementation, Practice	Dave Chaffey	Pearson, Latest
2	Introduction to E-Business: Management and Strategy	Colin Combe	Elsevier Ltd, Latest
3	E- Commerce: An Indian Perspective	P. T. Joseph	PHI Learning Pvt. Ltd, Latest

Newspapers / Magazines / Journals:

1. Business standard
2. Economic times
3. International Journal of Electronic Business
4. International Journal of E-Business Research (IJEER)
5. International Journal of Electronic Commerce

Web resources:

1. <https://www.geeksforgeeks.org/difference-between-e-commerce-and-e-business>
2. <https://www.netsolutions.com/insights/ecommerce-business-challenges-and-solutions/>
3. <https://www.bigcommerce.com/articles/ecommerce/types-of-business-models/#five-value-delivery-methods-for-ecommerce-innovation>
4. <https://smallbusiness.chron.com/ethical-problems-ebusiness-62037.html>
5. <https://www.smarthint.co/en/futuro-do-ecommerce/>



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Management Lessons from Art, Culture and Media	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Even
Credits:	02	Contact Hours:	30

Course Overview:

Management as a part of human organization's attribute making things to be performed smoothly not only for an individual's routine but also for the environment surrounded by them. In Indian tradition and culture one has been teaching about managing every situation and utilizing every resource for their peaceful life in every aspect. This course will cater to a brief idea about learnings from Indian art, culture and Media in a new dimension for an individual and for an organization as well.

Sessions that draw from the arts and humanities not only allow participants to tap into their creativity, but also sharpen their ability to observe, think critically, solve problems, innovate, and lead. This course provides a comprehensive insight on Transdisciplinary electives.

Upon completion of this course, you will be able to:

- Will understand how leadership models are put into practice personally, locally, and globally.
- Will gain knowledge of diverse cultures and cross-cultural communication.
- Will develop critical thinking skills and ability to learn from others experiences too.

This course explores both theory and practice. The lecture sessions introduce you to established concepts, techniques, and frameworks of various aspects of life skills.

Course concepts are illustrated primarily through lectures. You will have a chance to demonstrate your ability to apply the framework in this course through discussion and mid-term exams.

Course Content:

Module	Module Contents	Contact Hours	Marks
I	Leadership Lessons <ul style="list-style-type: none">• Chief input for business strategy• Keeper of organizational culture• Guide, teacher, or role model for employees Life Management Lessons <ul style="list-style-type: none">• Valuing Relationship	15	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Management Lessons from Art, Culture and Media	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Even
Credits:	02	Contact Hours:	30

	<ul style="list-style-type: none">Facing Difficulties and Achieving Goals.		
II	Communication Lessons <ul style="list-style-type: none">Campaign analysisInformation Gathering and Ethical Issues Case Studies and Presentations	15	

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	The Great War Some Lessons From the Mahabharata	Annie Besant F.T.S.	Theosophical publishing Society, Banaras/Madras
2	Corporate Chanakya on Management	Radhakrishna Pillai	Jaico, 2015
3	Management Lessons from Movies	Gokul Santhanam	https://sites.google.com/a/books-now.com/en980/9781946515278-71cinlisGEsumpsig91

Newspapers / Magazines / Journals/ Web resources:

- <https://library.um.edu.mo/ebooks/b17771201.pdf>



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Start - Ups and Entrepreneurship	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Even
Credits:	02	Contact Hours:	30

Course Overview:

This course provides a comprehensive introduction to the start-up and entrepreneurship by identifying what successful start-ups do. Understanding how entrepreneur work is nation development, increase standard of living and generate employment. Upon completion of this course, learners will be able to:

- Understand the fundamentals of start up
- Understand the levels of start up at which entrepreneur is practiced

In this course, learners will explore the tasks that today's entrepreneur perform and delve into the key knowledge areas that entrepreneurs need to master in order to run successful and profitable start up.

Course concepts are illustrated primarily through lectures and for each topic some case will be discussed. The cases are complemented with readings that further elaborate on key concepts. Learners will have a chance to illustrate your ability to apply the framework in this course through case discussion, case write-ups, and other assessment methods.

Course Content:

Module	Module Contents	Contact Hours	Marks
I	<u>Start-Ups</u> <ul style="list-style-type: none">• Identify Business Opportunities and Ideas<ul style="list-style-type: none">- Clarifying Your Vision, Mission, and Goals- Problem Solving to Find Entrepreneurial Solutions- Creative Problem-Solving Process- Design Thinking- Lean Processes• Measurements and testing ideas<ul style="list-style-type: none">- Sharing Your Entrepreneurial Story- Developing Pitches for Various Audiences and Goals- Protecting Your Idea and Polishing the Pitch	15	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Start - Ups and Entrepreneurship	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Even
Credits:	02	Contact Hours:	30

	<p>through Feedback</p> <ul style="list-style-type: none"> - Reality Check: Contests and Competitions <ul style="list-style-type: none"> • Accelerate ideas <ul style="list-style-type: none"> - Creativity, Innovation, and Invention: How They Differ - Avoiding the “Field of Dreams” Approach - Designing the Business Model - Conducting a Feasibility Analysis • Fund Raising <ul style="list-style-type: none"> - Special Funding Strategies - Accounting Basics for Entrepreneurs - Developing Startup Financial Statements and Projections 		
II	<p><u>Entrepreneurship</u></p> <ul style="list-style-type: none"> • Generation Z entrepreneur <ul style="list-style-type: none"> - Entrepreneurship Today - Entrepreneurial Vision and Goals - The Entrepreneurial Mindset • How to convert small business into Bada Business? <ul style="list-style-type: none"> - Building the Entrepreneurial Dream Team - Designing the Business Model - Conducting a Feasibility Analysis - Frameworks to Inform Your Entrepreneurial Path • Learn low cost marketing strategies <ul style="list-style-type: none"> - Entrepreneurial Marketing and the Marketing Mix - Market Research, Market Opportunity Recognition, and Target Market - Marketing Techniques and Tools for Entrepreneurs - Marketing Strategy and the Marketing Plan - Sales and Customer Service • Scaling & Building Brand Image <ul style="list-style-type: none"> - Entrepreneurial Branding - Building and Connecting to Networks 	15	



SARVAJANIK UNIVERSITY

S. R. LUTHRA INSTITUTE OF MANAGEMENT

Course:	Start - Ups and Entrepreneurship	Course Code:	
Course class:	Transdisciplinary Open Elective	Semester:	Even
Credits:	02	Contact Hours:	30

Course Materials:

Reference Books:

Sr. No.	Title of the Book	Authors	Publication and Edition
1	The Lean Startup	Eric Ries	Crown Business (USA)
2	Starting a Business 101	Mike Wicks	Blue Beetle Books Inc.
3	Entrepreneurship Development and small Business Enterprise	Poornima M Charantimath	Pearson
4	The Innovators' Solution	Vlaton M. Christensen & Michael E Raynor	Harvard Business Review Press

Newspapers / Magazines / Journals:

1. Entrepreneurship Theory and practice: SAGE Journal
2. Journal of Business Venturing - Elsevier
3. Journal of International Small Business – SCI

Web resources:

- <https://www.youtube.com/watch?v=H9ygAJ3dcqE> - How To Start A StartUp ?
- <https://www.startupindia.gov.in/> - State rank, Start up Support by Government
- <https://www.forbes.com/sites/allbusiness/2018/07/15/35-step-guide-entrepreneurs-starting-a-business/?sh=40fe7a94184b> – Forbes Article
- <https://openstax.org/books/entrepreneurship/pages/6-1-problem-solving-to-find-entrepreneurial-solutions> - Problem Solving to Find Entrepreneurial Solutions

