



Dr. N.G.P. ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)

Approved by Government of Tamil Nadu & Accredited by NAAC with A++ Grade (3rd Cycle - 3.64 CGPA)

Dr. N.G.P. - Kalapatti Road, Coimbatore – 641 048, Tamil Nadu, India

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REGULATIONS 2023-24 for Post Graduate Programme

(Outcome Based Education model with Choice Based Credit System)

M.Com CA Degree

(For the students admitted during the academic year 2023-24 and onwards)

PROGRAMME: M.COM (CA)

Eligibility A candidate who has passed any B.Com related UG Degree is eligible. B.Com(CA) /B.Com /B.Com(IT) /B.Com (E-Commerce) /B.Com(PA)/B.Com(Finance) /B.Com (B&I) /BBM /B.C.S (C.A) /B.Com (C.S) /B.Com (C.S & C.A) shall be given preference, as per the norms set by the Government of Tamil Nadu or an Examination accepted as equivalent thereto by the Academic Council, subject to such conditions as may be prescribed thereto are permitted to appear and qualify for the Master of Commerce with Computer Applications Degree Examination of this College after a Course of study of Two Academic Years.

PROGRAMME EDUCATIONAL OBJECTIVES

The Curriculum is designed with the following objectives in order to connect the skills of the students with the ever-changing business scenario:

1. To enable the learners about the role of finance, technology and its social obligation in the globalized environment.
2. To stimulate an enquiring, analytical and creative approach to business issues and to encourage independent judgment and critical awareness.
3. To enable the professional competence in the managerial and entrepreneurial skills to start or run a business or to play a significant and responsible role in the business.
4. To exhibit decision- making skills conforming to sustainable business practices and upholding business ethics and human values in challenging environments.
5. To embed research knowledge in the minds of learners for pursuing research as career in academics and industry.
6. To equip with emerging techniques, skills and tools for computing proficiency of the learners.



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PROGRAMME OUTCOMES

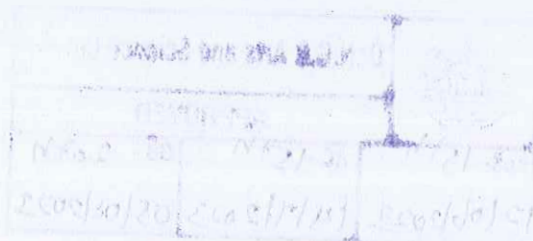
On the successful completion of the program, the following are the expected outcomes.

PO Number	PO Statement
PO1	To enable the students to acquire professional knowledge over Commerce and Computer related subjects.
PO2	To impart knowledge in advanced recent concepts and applications in various fields of commerce and to demonstrate an in-depth understanding of technical and quantitative aspects related to Finance, Information technology and marketing.
PO3	To embed practical knowledge in the minds of students through industrial visits and various training programmes.
PO4	To empower students to carryout action –oriented researches in commerce and computer applications.
PO5	To train the students in team work, lifelong learning and continuous professional development.



Credit distribution:

Subjects	No. of Papers	Credit	Semester No.
Core	14	57	I- IV
Extra Departmental Course (EDC)	1	4	II
Discipline Specific Elective (DSE)	4	16	I-IV
Core Practical	4	8	I- IV
Internship	1	2	III
Project Viva Voce	1	5	IV
TOTAL CREDITS		92	



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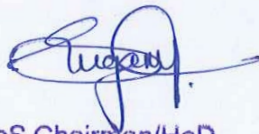
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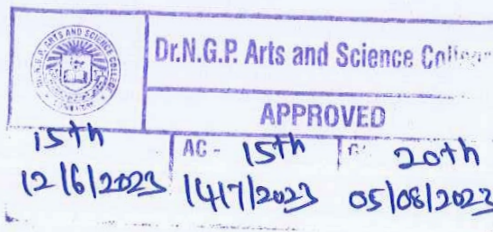
CURRICULUM

PROGRAMME NAME-M. Com CA

Course Code	Course Category	Course Name	L	TP	Exam (h)	Max Marks			Credits	
						CIA	ESE	Total		
First Semester										
235IB2A1CA	Core - I	Human Resource Management	5	-	-	3	25	75	100	4
235CO2A1CA	Core - II	Managerial Economics	5	-	-	3	25	75	100	4
235CR2A1CB	Core - III	Advanced Corporate Accounting	5	1	-	3	25	75	100	4
235CM2A1CA	Core - IV	Python Programming for Business	5	1	-	3	25	75	100	5
235CM2A1CP	Core Practical I	Python Programming	-	-	4	3	40	60	100	2
235CO2A1DA	DSE - I	Consumer Behaviour	4	-	-	3	25	75	100	4
235CM2A1DA		Software Design and Testing								
235CM2A1DB		Financial Markets and Services								
Total			24	2	4	-	-	-	600	23



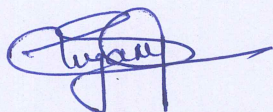
BoS Chairman/HoD
Department of Commerce (CA)
Dr. N. G. P. Arts and Science College
Coimbatore - 641 048




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Course Code	Course Category	Course Name	L	T	P	Exam (h)	Max Marks			Credits
							CIA	ESE	Total	
Second Semester										
235CM2A2CA	Core - V	Business Finance	5	-	-	3	25	75	100	4
235CO2A2CA	Core - VI	Direct Tax	5	1	-	3	25	75	100	4
235CM2A2CB	Core - VII	Relational Database Management System	6	-	-	3	25	75	100	4
235CM2A2CP	Core Practical- II	RDBMS	-	-	4	3	40	60	100	2
234DA2A2EA	EDC	Business Analytics	5	-	-	3	25	75	100	4
235IB2A2DB	DSE - II	Digital Marketing	4	-	-	3	25	75	100	4
235CM2A2DA		Information Security								
235CM2A2DB		Banking Services								
Total			25	1	4	-	-	-	600	22



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Course Code	Course Category	Course Name	L	T	P	Exam (h)	Max Marks			Credits
							CIA	ESE	Total	
Third Semester										
235CO2A3CA	Core-VIII	Business Research Methods	5	-	-	3	25	75	100	4
235CM2A3CA	Core-IX	Applied Cost Accounting	5	1	-	3	25	75	100	4
235CM2A3CB	Core-X	Marketing Management	5	1	-	3	25	75	100	4
235CM2A3CC	Core-XI	Software Project Management	5	-	-	3	25	75	100	5
235CO2A3CP	Core Practical-III	Statistical tools for Research	-	-	4	3	40	60	100	2
235CM2A3CT	IT	Internship	-	-	-	3	40	60	100	2
235CO2A3DA	DSE -III	Services Marketing	4	-	-	3	25	75	100	4
235CM2A3DA		Data Mining and Data Interpretation								
235CM2A3DB		Financial Derivatives								
Total			24	2	4	-	-	-	700	25



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Course Code	Course Category	Course Name	L	T	P	Exam (h)	Max Marks			Credits
							CIA	ESE	Total	
Fourth Semester										
235CM2A4CA	Core - XII	Accounting for Management	5	-	-	3	25	75	100	4
235CM2A4CB	Core - XIII	Java Programming	3	-	-	3	25	75	100	2
235CM2A4CC	Core-XIV	Setting Up of Business Entities	4	-	-	3	25	75	100	3
235CM2A4CV	Core-XV	Project and Viva-Voce	-	-	12	-	80	120	200	8
235CM2A4CP	Core Practical - IV	Java Programming	-	-	2	3	40	60	100	2
235CO2A4DA	DSE -IV	International Marketing	4	-	-	3	25	75	100	4
235CM2A4DA		Big Data Analytics								
235CM2A4DB		FinTech Services								
Total			16	-	14	-	-	-	700	23
Grand Total									2600	92


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M.Com. CA (Students admitted during the AY 2023-24)

DISCIPLINE SPECIFIC ELECTIVE

Students shall select the desired course of their choice in the listed elective course during all the Semesters

Semester I (Elective I)**List of Elective Courses**

S.No.	Course Code	Name of the Course
1	235CO2A1DA	Consumer Behavior
2	235CM2A1DA	Software Design and Testing
3	235CM2A1DB	Financial Markets and Services

Semester II (Elective II)**List of Elective Courses**

S.No.	Course Code	Name of the Course
1	235IB2A2DA	Digital Marketing
2	235CM2A2DA	Information Security
3	235CM2A2DB	Merchant Banking and Financial Services

Semester III (Elective III)**List of Elective Courses**

S.No.	Course Code	Name of the Course
1	235CO2A3DA	Services Marketing
2	235CM2A3DA	Data Mining and Data interpretation
3	235CM2A3DB	Financial Derivatives

Semester IV (Elective IV)**List of Elective Courses**

S.No.	Course Code	Name of the Course
1	235CO2A4DA	International Marketing
2	235CM2A4DA	Big Data Analytics
3	235CM2A4DB	Fin Tech Services



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M.Com. CA (Students admitted during the AY 2023-24)

EXTRA CREDIT COURSES

The following are the courses offered under self-study to earn extra credits:

Semester III

S.No.	Course Code	Course Name
1	225CM2ASSA	Retail Marketing
2	225CM2ASSB	E- Commerce Technology



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M.Com. CA (Students admitted during the AY 2023-24)

PG REGULATION (R5)
(2023-24 and onwards)
(OUTCOME BASED EDUCATION WITH CBCS)

Effective from the academic year 2023-24 and applicable to the students admitted to the Degree of Master of Arts/Commerce/Management/Science.

1. NOMENCLATURE

1.1 Faculty: Refers to a group of Programmes concerned with a major division of knowledge. Eg. Faculty of Computer Science consists of Programmes like Computer Science, Information Technology, Computer Technology, Computer Applications, Cognitive Systems, Artificial Intelligence and Machine Learning and Cyber Security and Data Analytics etc.

1.2 Programme: Refers to the Master of Arts/Management/Commerce/Science Stream that a student has chosen for study.

1.3 Batch: Refers to the starting and completion year of a programme of study. Eg. Batch of 2023-2025 refers to students belonging to a 2-year Degree programme admitted in 2023 and completing in 2025.

1.4 Course: Refers to component of a programme. A course may be designed to involve lectures / tutorials / laboratory work / seminar / project work/ practical training / report writing / Viva voce, etc or a combination of these, to effectively meet the teaching and learning needs and the credits may be assigned suitably.

a) **Core Courses** A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

b) **Extra Departmental Course (EDC):** A course chosen generally from a related discipline/subject, with an intention to seek exposure in the discipline relating to the core domain of the student.



c) **Discipline Specific Elective Course (DSE):** Elective courses are offered under main discipline/ subject of study.

d) Internship/Industrial Training (IT)

Students must undertake industrial / institutional training for a minimum of 15 days during the II semester summer vacation. The students will submit the report for evaluation during III semester.

e) **Project Work:** It is considered as a special course involving application of knowledge in problem solving/analyzing/exploring a real-life situation. The Project work will be given in lieu of a Core paper.

f) **Extra credits** Extra credits will be awarded to a student for achievements in co-curricular activities carried out outside the regular class hours. The guidelines for the award of extra credits are given in section two, these credits are not mandatory for completing the programme.

g) **Advanced Learner Course (ALC):** ALC is doing work of a higher standard than usual for students at that stage in their education. Research work / internships carried out in University/ Research Institutions/ Industries of repute in India or abroad for a period of 15 to 30 days.

2. STRUCTURE OF PROGRAMME

- Core Course
- Extra Departmental Course (EDC)
- Discipline Specific Elective (DSE)
- Industrial Training (IT)
- Project

3. DURATION OF THE PROGRAMME

M.Sc. /M.Com. / M.A. Programme must be completed within 2 Years (4 semesters) and maximum of 4 Years (8 semesters) from the date of acceptance to the programme. If not, the candidate must enroll in the course determined to be an equivalent by BoS in the most recent curriculum recommended for the Programme.



4. REQUIREMENTS FOR COMPLETION OF A SEMESTER

Every student shall ordinarily be allowed to keep terms for the given semester in a program of his/ her enrolment, only if he/ she fulfills at least seventy five percent (75%) of the attendance taken as an average of the total number of lectures, practicals, tutorials, etc. wherein short and/or long excursions/field visits/study tours organised by the college and supervised by the faculty as envisaged in the syllabus shall be credited to his attendance. Every student shall have a minimum of 75% as an overall attendance.

5. EXAMINATIONS

The end semester examinations shall normally be conducted after completing 90 working days for each semester. The maximum marks for each theory and practical course as follows,

Mark distribution for Theory Courses

Continuous Internal Assessment (CIA) :	25 Marks
End Semester Exams (ESE) :	75 Marks
Total :	100 Marks

i) Distribution of Internal Marks

S.No.	Particulars	Distribution of Marks
1	CIA I (2.5 Units) (On completion of 45 th working day)	5
2	Model (All 5 Units) (On completion of 85 th working day)	5
3	Attendance	05
4	Library Usage	05
5	Skill Enhancement *	05
Total		25

Breakup for Attendance Marks:

S.No	Attendance Range	Marks Awarded
1	95% and Above	5
2	90% - 94%	4
3	85% - 89%	3
4	80% - 84%	2
5	75% - 79%	1



Note:

Special Cases such as NCC, NSS, Sports, Advanced Learner Course, Summer Fellowship and Medical Conditions etc. the attendance exemption may be given by principal and Mark may be awarded.

Break up for Library Marks:

S.No	Attendance Range	Marks Awarded
1	10h and above	5
2	9h- less than 10h	4
3	8h - less than 9h	3
4	7h - less than 8h	2
5	6h - less than 7h	1

Note:

In exception, the utilization of e-resources of library will be considered.

***Components for "Skill Enhancement" may include the following:**

Class Participation, Case Studies Presentation/Term paper, Field Study, Field Survey, Group Discussion, Term Paper, Presentation of Papers in Conferences, Industry Visit, Book Review, Journal Review, e-content Creation, Model Preparation, Seminar and Assignment.

Components for Skill Enhancement

Any one of the following should be selected by the course coordinator

S.No.	Skill Enhancement	Description
1	Class Participation	<ul style="list-style-type: none"> Engagement in class Listening Skills Behaviour
2	Case Study Presentation/ Term Paper	<ul style="list-style-type: none"> Identification of the problem Case Analysis Effective Solution using creativity/imagination
3	Field Study	<ul style="list-style-type: none"> Selection of Topic Demonstration of Topic Analysis & Conclusion
4	Field Survey	<ul style="list-style-type: none"> Chosen Problem Design and quality of survey Analysis of survey



5	Group Discussion	<ul style="list-style-type: none"> • Communication skills • Subject knowledge • Attitude and way of presentation • Confidence • Listening Skill
6	Presentation of Papers in Conferences	<ul style="list-style-type: none"> • Sponsored • International/National • Presentation • Report Submission
7	Industry Visit	<ul style="list-style-type: none"> • Chosen Domain • Quality of the work • Analysis of the Report • Presentation
8	Book Review	<ul style="list-style-type: none"> • Content • Interpretation and Inferences of the text • Supporting Details • Presentation
9	Journal Review	<ul style="list-style-type: none"> • Analytical Thinking • Interpretation and Inferences • Exploring the perception if chosen genre • Presentation
10	e-content Creation	<ul style="list-style-type: none"> • Logo/ Tagline • Purpose • Content (Writing, designing and posting in Social Media) • Presentation
11	Model Preparation	<ul style="list-style-type: none"> • Theme/ Topic • Depth of background Knowledge • Creativity • Presentation
12	Seminar	<ul style="list-style-type: none"> • Knowledge and Content • Organization • Understanding • Presentation
13	Assignment	<ul style="list-style-type: none"> • Content and Style • Spelling and Grammar • References



ii) Distribution of External Marks

Total	:	75
Written Exam	:	75

Marks Distribution for Practical course

Total	:	100
Internal	:	40
External	:	60

i) Distribution of Internals Marks

S. No.	Particulars	Distribution of Marks
1	Experiments/Exercises	15
2	Test 1	10
3	Test 2	10
4	Observation Notebook	05
Total		40

ii) Distribution of Externals Marks

S.No.	Particulars	External Marks
1	Practical	40
2	Record	10
3	Viva- voce	10
Total		60

Practical examination shall be evaluated jointly by Internal and External Examiners.

A) Mark Distribution for Project

Total	:	200
Internal	:	80
External	:	120

i) Distribution of Internal Marks

S.No.	Particulars	Internal Marks
1	Review I	30
2	Review II	40
3	Attendance	10
Total		80



ii) Distribution of External Marks

S.No	Particulars	External Marks
1	Project Work & Presentation	100
2	Viva -voce	20
Total		120

Evaluation of Project Work shall be done jointly by Internal and External Examiners.

6. Credit Transfer

a. Upon successful completion of 1 NPTEL Course (4 Credit Course) recommended by the department, during Semester I to II, a student shall be eligible to get exemption of one 4 credit course during the 3rd semester. The proposed NPTEL course should cover content/syllabus of exempted core paper in 3rd semester.

S. No.	Course Code	Course Name	Proposed NPTEL Course	Credit
1			Option - 1 Paper title	4
			Option - 2 Paper title	
			Option - 3 Paper title	

b. Upon successful completion of 2 NPTEL Courses (2 Credit each) recommended by the department, during Semester I to II, a student shall be eligible to get exemption of one 4 credit course during the 3rd semester. Out of 2 NPTEL proposed courses, **at least 1 course** should cover content/syllabus of exempted core paper in 3rd semester.

Mandatory

The exempted core paper in the 3rd semester should be submitted by the students for approval before the end of 2nd semester

Credit transfer will be decided by equivalence committee



S. No.	Course Code	Course Name	Proposed NPTEL Course	Credit
1			Option - 1 Paper title	2
			Option - 2 Paper title	
			Option - 3 Paper title	
2			Option - 1 Paper title	2
			Option - 2 Paper title	
			Option - 3 Paper title	

NPTEL Courses to be carried out during semester I - II.					
S. No.	Student Name	Class	Proposed NPTEL Course		Proposed Course for Exemption
			Course I	Option 1- Paper Title Option 2- Paper Title Option 3- Paper Title	Any one Core Paper in 3 rd Semester
			Course II	Option 1- Paper Title Option 2- Paper Title Option 3- Paper Title	
Class Advisor		HoD		Dean	

7. Internship/Industrial Training

Mark Distribution for Internship/ Industrial Training

Total	:	100
Internal	:	40
External	:	60

i) Distribution of Internal Marks

S.No.	Particulars	Internal Marks
1	Review I	15
2	Review II	20
3	Attendance	5
Total		40



ii) Distribution of External Marks

S.No	Particulars	External Marks
1	Internship /Industrial training Presentation	40
2	Viva -voce	20
Total		60

Internship/ Industrial training shall be evaluated jointly by Internal and External Examiners.

9. Extra Credits: 10

Earning extra credit is not essential for programme completion. Student is entitled to earn extra credit for achievement in Curricular/Co-Curricular/ Extracurricular activities carried out other than the regular class hours.

A student is permitted to earn a maximum of 10 extra Credits during the programme period.

A maximum of 1 credit under each category is permissible.

Category	Credit
Self study Course	1
CA/ICSI/CMA (Foundations)	1
CA/ICSI/CMA (Inter)	1
Sports and Games	1
Publications / Conference Presentations (Oral/Poster)/ Awards	1
Innovation / Incubation / Patent / Sponsored Projects / Consultancy	1
Representation in State / National level celebrations	1
Awards/Recognitions/Fellowships	1
Advanced Learner Course (ALC)*	2

Credit shall be awarded for achievements of the student during the period of study only.

GUIDELINES

Self study Course

A pass in the self study courses offered by the department.

The candidate should register the self study course offered by the department only in the III semester.



CA/ICSI/CMA(Foundations)

Qualifying foundation in CA/ICSI/CMA / etc.

CA/ICSI/CMA(Inter)

Qualifying Inter in CA/ICSI/CMA / etc.

Sports and Games

The Student can earn extra credit based on their Achievement in sports in University/
State / National/ International.

Publications / Conference Presentations (Oral/Poster)

Research Publications in Journals

Oral/Poster presentation in Conference

Innovation / Incubation / Patent / Sponsored Projects / Consultancy

Development of model/ Products /Prototype /Process/App/Registration of Patents/
Copyrights/Trademarks/Sponsored Projects /Consultancy

Representation in State/National level celebrations

State / National level celebrations such as Independence day, Republic day Parade,
National Integration camp etc.

Awards/Recognitions/Fellowships

Regional/ State / National level awards/ Recognitions/Fellowships

***Advanced Learner Course (ALC):**

ALC is doing work of a higher standard than usual for students at that stage in their
education.

Research work/internships carried out in University/ Research Institutions/ Industries
of repute in India or abroad for a period of 15 to 30 days will be considered as
Advanced Learners Course.



QUESTION PAPER PATTERN

CIA Test I : [1½ Hours-2.5 Units] - 25 Marks

SECTION	MARKS	DESCRIPTION	TOTAL	Remarks
Section - A	8 x 0.5 = 04 Marks	MCQ	25 Marks	Marks secured will be converted To 5 mark
Section - B	3 x 2 = 06 Marks	Answer ALL Questions Either or Type ALL Questions Carry Equal Marks		
Section - C	3 x 05 = 15 Marks			

CIA Test II/ Model [3 Hours-5 Units] - 75 Marks

SECTION	MARKS	DESCRIPTION	TOTAL	Remarks
Section - A	10 x 1 = 10 Marks	MCQ	75 Marks	Marks secured will be converted To 5 mark
Section - B	5 x 3 = 15 Marks	Answer ALL Questions (Either or Type Questions) Each Questions Carry Equal Marks		
Section - C	5 x 8 = 40 Marks			
Section - D	1 x 10 = 10 Marks	Compulsory Question		

End Semester Examination [3 Hours-5 Units] - 75 Marks

SECTION	MARKS	DESCRIPTION	TOTAL
Section - A	10 x 1 = 10 Marks	MCQ	75 Marks
Section - B	5 x 3 = 15 Marks	Answer ALL Questions (Either or Type Questions) Each Questions Carry Equal Marks	
Section - C	5 x 8 = 40 Marks		
Section - D	1 x 10 = 10 Marks	Compulsory Question	



Course Code	Course Name	Category	L	T	P	Credit
235IB2A1CA	HUMAN RESOURCE MANAGEMENT	CORE	5	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- The importance of human resource management.
- The role and functions of the various human resource activities in an organization.
- The necessity of retaining the Employees.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Highlight the importance of Human resource management in an organization.	K2
CO2	Describe the process of job analysis and recruitment.	K2
CO3	Interpret the concept of placement & employee training.	K3
CO4	Infer the issues in training, appraising and compensating internal employees.	K4
CO5	Explain the concept of job satisfaction and stress management.	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓		✓	✓
CO2					✓
CO3	✓			✓	✓
CO4					✓
CO5	✓				✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input checked="" type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235IB2A1CA	HUMAN RESOURCE MANAGEMENT	SEMESTER I
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Total Credits: 4

Total Instruction Hours: 60 h

Syllabus

Unit I Introduction to Human Resource Management 12 h

Introduction to human resource management - Characteristics - Scope of HRM - Objectives - Importance and functions of HRM - Qualities of human resource manager - Role of human resource manager- Human resource management strategy and analysis - e-HRM: Nature of e-HRM, e-learning, e-compensation - Recent techniques in HRM.

Case study on Qualities of HR Manager

Unit II Job analysis & Recruitment 12 h

Job analysis- Objectives - Significance - Process - Techniques - Job description - Job specification - Role analysis. Job design - Concept - Approaches - Methods. Recruitment and Selection: Process- Sources of recruitment - Techniques- Testing and competency mapping.

Case study on Job analysis

Unit III Placement & Employee Training 12 h

Placement and induction-Concept of placement and induction - Objectives - Advantages- Steps to make induction effective. Employee training: Concept -Need -Importance- Types -Objective -Design - Methods -Evaluating training effectiveness.

Case study on Training and development

Unit IV Performance Appraisal & Job Evaluation 12 h

Performance appraisal- Concept - Objective - Importance - Process - Problems - Essentials - Methods - Performance appraisal through MBO - 360 degree appraisal techniques- Performance Management. Job evaluation: Concept - Objectives - Process - Advantages - Limitations - Essentials - Methods- Establishing strategic pay plans - Pay for performance and financial incentives - Benefits and services.

Case study on Performance appraisal



Unit V Job Satisfaction & Employee Relations

12 h

Job satisfaction – Concept – Measurement – Determinants – Quality of work life – Concept – Measure – Dimension – Principles. Employee relations: Building positive employee relations – Safety, health and risk management–Management of stress – Concept – Sources – Consequences – Coping with stress – Methods of stress management.

Case study on Employee Equality

Note: Case Studies related to the above topics to be discussed. Examined externally (Section C: Compulsory question)

Text Books

- 1 Gupta C.B, 2020, "Human Resource Management Text and Cases",15th Edition, Sultan Chand & Sons, New Delhi.
- 2 Subba Rao. P, 2018 , "Human Resource Management " , 8th Edition, Himalaya Publishing House, New Delhi.

References

- 1 Aswathappa K, 2017 , "Human Resource Management: Text and Cases", 8th Edition, Tata McGraw Hill Education, New York, United States.
- 2 Khanka S.S, 2013, "Human Resource Management Text and Cases", 5th Edition, S Chand Company Private Limited, New Delhi.
- 3 Prasad. L.M, 2010 , "Human Resource Management", 2020 Edition, Sultan Chand & Sons, New Delhi.
- 4 Garry Dessler & Varkey, 2009, "Human Resource Management",15th Edition, Pearson, New Delhi.



Course Code	Course Name	Category	L	T	P	Credit
235CO2A1CA	MANAGERIAL ECONOMICS	CORE	5	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- realize the importance of a managerial economist.
- analyze demand, cost, decide production and determine price.
- assess the influence of macroeconomic factors in managerial decision making.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	execute well the role of a managerial economist.	K3
CO2	identify the concept of demand and consider them in business decision making.	K2
CO3	relate cost, production and price.	K4
CO4	be responsive to dynamic macroeconomic factors in business.	K3
CO5	analyze international trade considerations in business decisions.	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		✓
CO2	✓				
CO3	✓	✓		✓	✓
CO4	✓	✓	✓		✓
CO5	✓		✓		✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input checked="" type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CO2A1CA	MANAGERIAL ECONOMICS	SEMESTER I
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Total Credits: 4

Total Instruction Hours: 60 h

Syllabus

Unit I Managerial Economics 9 h

Nature and Scope of Managerial Economics – Managerial Economics in Relation with other Disciplines – Goals of Corporate Enterprises – Social Responsibility – Decision Making in Business – Roles and Responsibilities of a Managerial Economist – Value of Enterprise - Case study on Goals of Corporate Enterprises.

Unit II Demand Analysis and Forecasting 11 h

Demand Function – Demand Function for a Business Manager – Demand Distinctions - Law of Demand – Elasticity of Demand – Application of Price Elasticity of Demand – Overseas Demand Analysis: Need, Estimating Market Potential and Factors Affecting Overseas Demand – Demand Forecasting: General Considerations and Methods - Case study on Law of Demand.

Unit III Cost, production and Price Analysis 12 h

Cost Concepts – Cost-output Relation in Short-run and Long-run – Economies of Scale – Cost Control – Break-Even-Point (BEP) Analysis and its Application – Production Function and Managerial Use of Production Function - Pricing Policies – Pricing over Life Cycle of a Product - Export Pricing Strategy and Decisions - Case study on Pricing.

Unit IV Macro Economics for Management 14 h

Major Issues in Macroeconomics: National Income, Inflation and Deflation, Business Cycle and Balance of Payments (BoP) – Consumer Price Index (CPI), Wholesale Price Index (WPI), Inflation Rate and Exchange Rate – Fiscal Policy and Monetary Policy – Case study on Fiscal Policy.

Unit V International Economics 14 h

International Trade: Features, Advantages and Disadvantages - International Trade Theories: Comparative Cost Theory, Opportunity Cost Theory and H.O. Theory – Gains from Trade – Terms of Trade - TRIPS, TRIMS and IPR - Case study on comparative cost theory.



Note: Case Studies related to the above topics to be discussed. Examined externally.
(Section C: Compulsory question for case studies.)

Text Books

- 1 Sundharam K.P.L. & Sundharam E.L, 2020, "Business Economics", Sultan Chand and Sons.
- 2 Dr. Ahuja. H.L., 2014, "Business Economics", Eleventh Edition, S.Chand and Company Pvt. Ltd., New Delhi.

References

- 1 Maheswari, Maheswari and Sinha, 2015, "Business Economics", SPD Publishing House.
- 2 Dr. Sankaran. S, 2015, "Business Economics", Margham Publication.
- 3 Aryamala.T, 2013, "Business Economics", Vijay Nicole Imprints Pvt. Ltd, Chennai.
- 4 Manab Adhikary, 2010, "Business Economics", Second Edition, Excel Books, New Delhi.



Course Code	Course Name	Category	L	T	P	Credit
235CR2A1CB	ADVANCED CORPORATE ACCOUNTING	CORE	5	1	-	4

PREAMBLE

This course has been designed for students to learn and understand

- Concepts, principles and practices of company accounts in accordance with statutory requirements.
- The financial statements of Joint Stock Companies, Banking and Insurance companies
- The emerging Accounting Practices

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Extend the principles, concepts and provisions relating to amalgamation of companies	K3
CO2	Illustrate the Accounting concepts of holding and subsidiary companies	K3
CO3	Analyze insurance and banking company accounts with due regard to the requirements	K4
CO4	Summarize the final accounts of companies	K5
CO5	Categorize the concept of consolidated inflation accounting statement	K5

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓	✓	✓
CO2	✓	✓	✓	✓	✓
CO3	✓	✓	✓	✓	✓
CO4	✓		✓	✓	✓
CO5		✓	✓	✓	✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CR2A1CB	ADVANCED CORPORATE ACCOUNTING	SEMESTER I
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Total Credits: 4
Total Instruction Hours: 72 h

Syllabus

Unit I Amalgamation , Absorption and Reconstruction 14 h

Amalgamation and Absorption - Calculation of Purchase Consideration under various methods - Realization of Assets and Liabilities - Methods of accounting for Amalgamation - Reconstruction - Internal Reconstruction - Reduction of share capital - External Reconstruction (Excluding inter-company holdings) - Case studies relating to External Reconstruction.

Unit II Consolidated Balance Sheet As Per AS 21 15 h

Consolidated Balance Sheet as per AS 21 in the books of holding companies - Calculation of Goodwill - Capital Reserve - Minority Interest - Unrealized Profit - Capital and Revenue Profits - Mutual Owings - Bonus Share and Treatment of Dividend - Inter Company Holdings - Case studies relating to Holding companies.

Unit III Accounts of Banking and Insurance Companies 15 h

Accounts of Banking Companies - Final accounts and Balance Sheet. Accounts of Insurance Companies - Final Accounts and Balance sheet of Life Insurance and General Insurance Businesses - Case studies relating to Banking Companies.

Unit IV Final Accounts of Companies 14 h

Preparation and Presentation of Final accounts of Companies - Form and Contents of Balance sheet and profit and loss account - Managerial remuneration - Case studies relating to Final Accounts of Companies.

Unit V Inflation and Emerging Accounting Practices 14 h

Inflation Accounting - CPP - CCA - COSA - MWCA - Gearing method - Hybrid method - Summaries of International Accounting Standards (IAS) 1, 2, 7, and 8 - Introduction to IFRS - Case studies relating to IFRS.



Note: Distribution of Marks Problems 80% and Theory 20%.

Case Studies related to the above topics to be discussed. Examined externally (Section C: Compulsory question for case studies).

Text Books

- 1 Maheswari. S.N and Suneel. K. Maheshwari, 2020, "Corporate Accounting", 5th Edition, Vikas Publishing House, New Delhi.
- 2 Wilson. M, 2020, "Advanced Corporate Accounting" [Revised Edition], Scitech Publications India Pvt Ltd, Chennai

References

- 1 Shukla. M .C, Grewal .T. S and Gupta .S. C, 2021, "Advanced Accounts", 18th Edition, Volume II, S. Chand and Company Ltd., New Delhi.
- 2 Gupta R. L. and Radhasamy, 2020, "Advanced Accountancy", Volume I and II, Sultan Chand and Sons, New Delhi.
- 3 Jain .S. P. and Narang. K. L, 2020, "Advanced Accountancy", Volume I and II, Kalyani Publishers, New Delhi.
- 4 Reddy T.S. and Murthy. A, 2020, "Corporate Accounting", Margham Publications, Chennai



Course Code	Course Name	Category	L	T	P	Credit
235CM2A1CA	PYTHON PROGRAMMING FOR BUSINESS	CORE	5	1	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the knowledge of OOPs Concepts through python
- the emerging applications of relevant field using Python
- advanced programming features in Python to solve industry standard problems.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	understand the principles of Python and acquire skills in programming in python	K2
CO2	illustrate the process of structuring the data using lists, dictionaries, tuples and sets.	K2
CO3	make use of Class, Inheritance, method overriding, data encapsulation	K3
CO4	analyzing the usage of packages and Dictionaries	K4
CO5	categorize and cleaning dataset and using the visualization techniques	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓	✓	✓
CO2	✓	✓		✓	✓
CO3	✓	✓	✓	✓	✓
CO4		✓		✓	✓
CO5	✓	✓	✓		✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A1CA	PYTHON PROGRAMMING FOR BUSINESS	SEMESTER I
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Total Credits: 4

Total Instruction Hours: 72 h

Syllabus

Unit I Introduction to Python 14 h

Python Basic: Introduction - Python Overview - Getting Started With Python: Comments- Identifier-Keywords- Data Types- Operators- Statement and Expression- String - Control Structure .

Unit II Functions and Data types 14 h

Functions: Build In Function - User Defined Function - Parameters And Arguments - Function Calls - Return Statement - Anonymous Function - Writing Python Script - List - Tuples and Dictionary. Arrays in python: Array-Creating an Array-Types of Arrays.

Unit III OOPS Concepts 14 h

Features of Object Oriented Programming System-Classes and Objects- Encapsulation- Abstraction- Inheritance- Polymorphism .Creating a Class-The Self Variable -Constructor. Files in Python: Files-Types of Files in Python Opening a File- Closing a File.

Unit IV Python Packages for Business Applications 15 h

Essential Python Libraries: Numpy - Pandas -Matplotlib - Ipython And Jupyter - Scipy -Scikit. Installation and Setup. Ipython Basics: Executing code from clipboard. Getting Started With Pandas : Series .Data Frames: Creating frames- operations on rows and columns - GroupBy: Aggregation - Transformation - Filtration- Merging and Joining -Manipulating Dates

Unit V Visualization 15 h

Introduction to Data Visualization-Key elements of Data Visualization-Variou Data Visualization Elements and Tools-Plotting And Visualization: matplotlib configuration. Plotting functions in Pandas: Line Plots - Bar Plots- Scatter Plots- Histogram Plot.



Note: Case Studies related to the above topics to be discussed. Examined externally (Section C: Compulsory question for case studies).

1. Case Study on Decision Making using python
2. Case Study on Arithmetic Calculator using Functions
3. Case Study on Banking application using Inheritance
4. Case Study solving real-world data science tasks with Python Using Pandas
5. Case Study on Cars dataset Visualize Using Matplotlib

Text Books

- 1 E.Balagurusamy, 2018, "Problem Solving and Python Programming" [First Edition] Tata Mc-Graw Hill Publication.
- 2 Wes Mckinney, 2018, "Pyhton for Data Analysis" [First Edition] O'Reilly Publication.

References

- 1 Anurag Gupta, G.P Biswas, 2020, " Pytyhon Programming"[First Edition] Tata Mc-Graw Hill Publication.
- 2 Timothy A. Budd, 2018, "Exploring Python" [Reprint] Tata Mc Graw Hill Publication.
- 3 Kallur Rahman, 2021,"Python Data Visualization Essentials Guide" [First Edition] BPB Publications, India.
- 4 R.Nageswara Rao, 2017,"Core Python Programming", First Edition, Publication dreamtech -press.



235CM2A1CP	PYTHON PROGRAMMING	SEMESTER I
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Total Credits: 2
Total Instructions Hours: 48 h

S.No.	Contents
1	Develop a Python Program to calculate Depreciation.
2	Develop a Python Program to calculate the payroll of employees.
3	Python program to create Bank account class with deposit, withdraw function.
4	Create a Class and calculate budget using Python.
5	Build a Basic Python Cash Flow Model for a Loan Using Numpy.
6	Create a Receipt Calculator using Python.
7	Build a Python Program for String Operation.
8	Calculate Economic Order Quantity using Numpy
9	Create an Employee dataset using pandas and perform the operations (i) Adding a new row to the data frame and append to the existing data frame (ii) Adding a new row at a specific location (iii) Deleting a row from the data frame
10	Create a Dataset using python visualize the dataset using Matplotlib.
11	Import a CSV File into Python, use Pandas for perform Sorting, Slicing records, Filtering.
12	Import financial dataset, use Line chat and scatter plot for Visualization.



Course Code	Course Name	Category	L	T	P	Credit
235CO2A1DA	CONSUMER BEHAVIOUR	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the concept of consumer buying behaviour.
- the theories of motivation and perception in consumer behavior.
- the process of consumer decision making.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	understand the concept of consumer behaviour and decision-making process.	K2
CO2	know about marketing implications on consumer behavioural decision.	K3
CO3	analyse on psychographic factors of buying behaviour.	K4
CO4	examine the consumer strategy towards store choice and shopping behaviour.	K4
CO5	sketch out Global online consumer behavior	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		✓
CO2		✓	✓	✓	✓
CO3	✓	✓		✓	✓
CO4	✓	✓	✓	✓	
CO5	✓	✓			✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/> Skill Development	<input checked="" type="checkbox"/> Entrepreneurial Development
<input checked="" type="checkbox"/> Employability	<input checked="" type="checkbox"/> Innovations
<input type="checkbox"/> Intellectual Property Rights	<input type="checkbox"/> Gender Sensitization
<input checked="" type="checkbox"/> Social Awareness/ Environment	<input checked="" type="checkbox"/> Constitutional Rights/ Human Values/ Ethics



235CO2A1DA	CONSUMER BEHAVIOUR	SEMESTER I
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Consumer Behaviour 10 h

Consumer Behaviour and Marketing Action - An overview - consumer involvement - decision-making processes - Purchase behaviour and Marketing implications - Consumer behaviour models - Case study on Purchase Behaviour.

Unit II Buying Behaviour 10 h

Personality - Psycho-analytical neo-Freudian and social approaches to personality, understanding consumer diversity, Brand personality, Self and self image.

Environmental influences on Consumer Behaviour - Cultural influences - Social class - Reference groups and family influences - Opinion leadership and the diffusion of innovations - Marketing implications of the above influences - Case study on influencing factors of buying behaviour.

Unit III Consumer Attitude 8 h

Attitude formation & change - Tricomponent and structural models of attitudes, sources of attitude formation, strategies of attitude change, cognitive dissonance, attribution, self perception theories, Foot in the door phenomenon.

Groups - types, Celebrities, Family, Socialization of family members, Function of family, Family decision-making and consumption - related roles, Family life cycle - Case study on consumer attitude.

Unit IV Strategic Implementation 10 h

Strategic marketing applications - Market segmentation strategies - Positioning strategies for existing and new products, Re-positioning, Perceptual Mapping - Marketing communication - Store choice and shopping behaviour - In-Store stimuli, store image and loyalty - Consumerism - Consumer rights and Marketers' responsibilities - Case study on store choice strategy.

Unit V Consumer buying habits 10 h

The Global Consumer Behaviour and Online buying behaviour - Consumer buying habits and perceptions of emerging non-store choices - Research and applications of consumer responses to direct marketing approaches - Issues of privacy and ethics - Case study on buying habits.



Note: Case Studies related to the above topics to be discussed. Examined externally.
(Section C : Compulsory question for case studies)

Text Books

- 1 Leon G Shiffman, 2022, Consumer Behaviour, Pearson Education, New Delhi.
- 2 Varsha Jain, 2019, Consumer Behaviour: A Digital Native, Pearson, Noida.

References

- 1 David L Mothersbaugh, 2022, Consumer Behaviour: Building Marketing Strategy Special Indian Edition Mc Graw Hill, New Delhi.
- 2 Sarmistha Sarma, 2019, Consumer Behaviour, Wiley India, New Delhi.
- 3 Sangeetha Sahney, 2018, Consumer Behaviour, Oxford University Press Publishing House, New Delhi.
- 4 Joseph Wisenblit, S. Ramesh Kumar, 2017, Consumer Behaviour, Pearson, New Delhi.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A1DA	SOFTWARE DESIGN AND TESTING	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the software development process.
- the process of software requirement analysis.
- the concept of software design and different types of Software testing techniques.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	outline the software development life cycle process	K2
CO2	summarize the Software requirements and specifications	K2
CO3	build the Software Design using DFD	K3
CO4	analyze the Object Modeling using UML diagram	K4
CO5	categorize the various software testing	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓		✓		✓
CO2	✓	✓	✓	✓	
CO3	✓		✓		✓
CO4	✓	✓	✓	✓	✓
CO5	✓		✓	✓	✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A1DA	SOFTWARE DESIGN AND TESTING	SEMESTER I
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Introduction 12 h

Introduction to Software Engineering: The Evolving role of a Software - The changing nature of a Software - Evolution - From an Art Form to an Engineering Discipline - Software Development projects - Emergence of Software Engineering. Software Life cycle models: Waterfall model - Rapid Application Development - Agile Model - Spiral Model.

Unit II Requirement Analysis 10 h

Requirement Analysis and Specification - Gathering and Analysis - SRS - Formal System Specification.

Unit III Software Design 10 h

Software Design - Overview - Characteristics - Cohesion & Coupling - Layered design - Approaches Function Oriented Design - Structured Analysis - DFD - Structured Design - Detailed design.

Unit IV Object Modeling 8 h

Object Modeling using UML - OO concepts - UML - Diagrams - Use case-Class-Interaction- Activity-State Chart -Postscript.

Unit V Testing 8 h

Coding & Testing - coding - Review - Documentation - Testing: Black-box- White box- Integration- OO Testing- Smoke testing.

Note : Case Studies related to the above topics to be discussed. Examined externally (Section C: Compulsory question for case studies.

Case study 1: Comparative study of Software life cycle model

Case study 2: Functional requirement for a Banking System

Case study 3: Design DFD for a software application

Case study 4: Determine the objects required to implement the system

Case study 5: Prepare various test cases for a login page



Text Books

- 1 Rajib Mall, 2018, "Fundamentals of Software Engineering", PHI , 5th Edition.
- 2 Roger S. Pressman, 2010, "Software Engineering - A Practitioner's Approach", McGraw Hill, 7th Edition.

References

- 1 Pankaj Jalote, 2011, "An Integrated Approach to Software Engineering", Narosa Publishing House, 3rd Edition.
- 2 David Budgen, 2015, "Software Design ", Pearson India Education Services Pvt Ltd.
- 3 Srinivasan desikan and Gopalswamy Ramesh, 2019 , "Software Testing Principles and practices", Pearson India Education Services Pvt Ltd.
- 4 K.K.Aggarwal and Yogesh Singh, 2014, "Software engineering", New Age International (p) Limited, New Delhi.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A1DB	FINANCIAL MARKETS AND SERVICES	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the Intricacies of Indian financial system for better financial decision making
- functioning of various segments of the financial markets
- various instruments traded in the financial markets

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	identify the financial system in India	K2
CO2	describe various concepts and services in the finance markets	K1
CO3	analyse the activities undertaken in stock exchange and SEBI guidelines.	K4
CO4	interpret various innovative financial services and instruments.	K3
CO5	evaluate the performance of mutual funds and venture capital.	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓		✓		
CO2	✓	✓	✓		✓
CO3	✓	✓	✓	✓	
CO4	✓	✓	✓		✓
CO5	✓	✓		✓	

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A1DB	FINANCIAL MARKETS AND SERVICES	SEMESTER I
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Total Credits: 4
Total Instruction Hours: 48 h

Syllabus

Unit I Financial System in India 12 h

Functions of Financial system- Financial concepts Financial assets- Financial intermediaries-Financial markets- Foreign Exchange Market- Financial instruments - Development of financial system in India - Financial system and Economic Development.

Unit II Money Market 12 h

Money Market: Definition - Money market Vs. Capital Market - Features, Types-Importance & Composition of Money market - Call money market - Discount market - Bill Market Scheme - Treasury bill market - money market instruments - commercial papers - Deficiencies of Indian money market.

Unit III Capital Market 12 h

Capital Market: New Issue Market - Distinction between new issue market and Stock Exchange -Functions of New Issue Market - Methods of Floating New Issues - Guidelines for new issue market- Instruments of Issue - Players in the New Issue Market. Secondary Market: Introduction - Functions of Stock Exchanges - Listing of Securities - Listing procedure - Registration of stock Brokers- Functions- Kinds of brokers- Methods of trading in stock exchange. Online Trading-BSE-BOLT system- BSE and NSE - OTCEI

Unit IV Merchant Banking and Depositories 12 h

Merchant banking in India: Merchant Banking Services - Guidelines (SEBI) for merchant bankers. Depository-Meaning-Objectives- Functions of Depository- SEBI (Depositories and Participants) Regulations Act 1996 - National Securities Depository Limited (NSDL) - Central Depository Services Limited (CDSL) - Custodial Services.

Unit V Mutual Fund, Venture Capital and Credit Rating Services 12 h

Mutual Funds: Classification of Mutual Funds -Advantages and Limitations of Mutual Funds - Guidelines for Mutual Funds - SEBI (Mutual Funds) Regulation. Venture Capital Financing: Definition - Venture capital Financing Vs. Conventional Financing - Characteristics of Venture capital - Stages of Venture Capital Financing. Credit Rating Services : Process of Credit Rating - Advantages & Limitations of Credit Rating - Credit Rating Agencies in India.



Note: Case Studies related to the above topics to be discussed. Examined externally
(Section C: Compulsory question for case studies)

1. Case Study on Indian Financial System.
2. Case Study on Money Market Operations.
3. Case Study Capital Market Operations
4. Case Study on Indian Merchant Banking System.
5. Case Study on Operations of Mutual Funds.

Text Books


- 1 E.Gordon , K. Natarajan, 2020, "Financial Markets and Services", Himalaya Publishing House Pvt Ltd , Mumbai.
- 2 N.K Gupta, Monika Chopra, 2021,"Financial Market Institutions and Services", Himalaya Publishing House Pvt Ltd, New Delhi.

References

- 1 Dr.S.Gurusamy , 2015, " Financial Markets and Institutions", McGraw – Hill Education.
- 2 Shashi K Gupta, Nisha Aggarwal and Neeti Gupta, 2017, "Financial Institutions and Markets", Kalyani Publishers , New Delhi.
- 3 L.M. bhole, 2015,"Financial Institutions and Markets", Mcgraw-Hill education
- 4 Dr.L. Natarajan ,2016. "Financial Markets and Services", Margham Publications, Chennai



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APPROVED		
BoS- 15th 12/06/2023	AC - 15th 19/07/2023	GB - 20th 05/08/2023



Dr.NGPASC
COIMBATORE | INDIA

Course Code	Course Name	Category	L	T	P	Credit
235CM2A2CA	BUSINESS FINANCE	CORE	5		-	4

PREAMBLE

This course has been designed for students to learn and understand

- the fundamental concepts in finance
- the risk in investment proposals and evaluate leasing as a source of finance and determine the sources of startup financing
- the cash and inventory management techniques and appraise capital budgeting techniques for MNCs

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Explain important finance concepts	K2
CO2	Estimate risk and determine its impact on return	K2
CO3	Explore leasing and other sources of finance for startups	K3
CO4	Summaries cash receivable and inventory management techniques	K4
CO5	Evaluate techniques of long term investment decision incorporating risk factor	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1			✓		
CO2					✓
CO3			✓		
CO4			✓		
CO5	✓			✓	

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A2CA	BUSINESS FINANCE	SEMESTER II
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Total Credits: 4

Total Instruction Hours: 60 h

Syllabus

Unit I Introduction to Business Finance and Time vale of money 10 h

Business Finance: Meaning, Objectives, Scope -Time Value of money: Meaning, Causes - Compounding - Discounting - Sinking Fund Deposit Factor - Capital Recovery Factor - Multiple Compounding - Effective rate of interest - Doubling period (Rule of 69 and Rule of 72) - Practical problems).

Unit II Risk Management 12 h

Risk and Uncertainty: Meaning - Sources of Risk - Measures of Risk - Measurement of Return - General pattern of Risk and Return - Criteria for evaluating proposals to minimize Risk (Single Asset and Portfolio) - Methods of Risk Management - Hedging currency risk).

Unit III Startup Financing and Leasing 11 h

Startup Financing: Meaning, Sources, Modes (Bootstrapping, Angel investors, Venture capital fund) - Leasing: Meaning - Types of Lease Agreements - Advantages and Disadvantages of Leasing - Financial evaluation from the perspective of Lessor and Lessee.

Unit IV Cash, Receivable and Inventory Management 13 h

Cash Management: Meaning, Objectives and Importance - Cash Cycle - Minimum Operating Cash - Safety level of cash - Optimum cash balance - Receivable Management: Meaning - Credit policy - Controlling receivables: Debt collection period, Ageing schedule, Factoring - Evaluating investment in accounts receivable - Inventory Management: Meaning and Objectives - EOQ with price breaks - ABC Analysis.

Unit V Multi National Capital Budgeting 14 h

Multi National Capital Budgeting: Meaning, Steps involved, Complexities, Factors to be considered - International sources of finance - Techniques to evaluate multi-national capital expenditure proposals: Discounted Pay Back Period, NPV, Profitability Index, Net Profitability Index and Internal Rate of Return - Capital rationing -Techniques of Risk analysis in Capital Budgeting.



Note: Section C: Compulsory question for case study

Distribution of Marks: Problem 60 % and Theory 40%

1. Case Study on Time value of money
2. Case Study on Relationship between Risk and Returns
3. Case Study on Startups and Concepts of Leasing
4. Case Study on Cash cycle and Credit policy
5. Case Study on Risk analysis in Capital Budgeting

Text Books

- 1 Khan M.Y & Jain P.K, (2018), "Financial Management: Text, Problems and Cases", 8th Edition, McGraw Hill Education, New Delhi.
- 2 Maheshwari S.N., (2019), "Financial Management Principles and Practices", 15th Edition, Sultan Chand & Sons, New Delhi.

References

- 1 Prasanna Chandra, (2017). Financial Management. (4th Edn.) New Delhi: Tata McGraw-Hill Publishers
- 2 Pandey, I.M (2021). Financial Management. (Twelfth Edn.) Delhi: Pearson Publishing Pvt.Ltd,
- 3 Arokiamary Geetha Rufus, Ramani N. & Others, (2017), "Financial Management", 1st Edition, Himalaya Publishing House Pvt Ltd, Mumbai
- 4 Rustagi R. P., (2022), "Financial Management, Theory, Concept, Problems", 6th Edition, Taxmann Publications Pvt. Ltd, New Delhi
- 5 <https://resource.cdn.icai.org/66592bos53773-cp4u5.pdf>
- 6 <https://resource.cdn.icai.org/66677bos53808-cp10u2.pdf>
- 7 <https://resource.cdn.icai.org/66674bos53808-cp8.pdf>



Course Code	Course Name	Category	L	T	P	Credit
235CO2A2CA	DIRECT TAX	CORE	5	1	-	4

PREAMBLE

This course has been designed for students to learn and understand

- about provisions of direct tax with regard to IT Act, 1961.
- the provisions and procedure to compute total income under five heads of income.
- various deductions to be made from gross total income U/s 80-C to 80-U in computing total income.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	understand income tax laws and determine the residential status of an assessee.	K2
CO2	compute total income of an assessee under the head salary and house property.	K4
CO3	calculate of total income in business and profession and capital gain.	K4
CO4	ascertain the total income of an individual and computation of tax liability.	K4
CO5	organize the powers and functions of income tax authority and procedures in filing of return.	K3

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓		✓	✓	✓
CO2	✓	✓	✓		✓
CO3	✓	✓	✓	✓	✓
CO4	✓	✓	✓	✓	✓
CO5	✓	✓			✓

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input checked="" type="checkbox"/>	Social Awareness/ Environment	<input checked="" type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CO2A2CA	DIRECT TAX	SEMESTER II
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Total Credits: 4

Total Instruction Hours: 72 h

Syllabus

Unit I Introduction to Income Tax 13 h

Income Tax Act - Definition - Income - Agricultural Income - Assessee - Previous year - Assessment year - Residential status - Scope of Total Income - Capital and Revenue - Receipts and Expenditure - Exempted Incomes.

Case study on exempted incomes.

Unit II Income from Salaries & House Property 17 h

Income from Salaries: Characteristics of salary-Allowances-Perquisites-Profit in lieu of salary-Deductions u/s 16- Income from House Property: Types of Rental value-Determination of Annual value-Let-out house-Self occupied house-Deductions out of annual value.

Case study on allowances given to employees.

Unit III Profit and Gains of Business 15 h

Profit and Gains of Business: Business- allowed and disallowed expenses - Expenses disallowed in certain cases -Deemed profits -Valuation of stock - Profession: Receipts and Payments. Capital Gains: Types of capital gains - Determination of cost of acquisition and improvement.

Case study on allowed and disallowed expenses.

Unit IV Income from Other Sources 15 h

Income from Other Sources: General incomes -Specified incomes-Deductions U/S 57 - Set-Off and Carry Forward of Losses - Deductions from Gross Total Income (80C - 80U)- Assessment of Individuals.

Case study on assessment of individuals.

Unit V Income Tax Authorities 12 h

Income Tax Authorities - Powers - Functions - Procedure for Assessment: Income tax returns - Filing of Returns - Belated returns - Forms of returns of income - PAN-Types of Assessment - Collection of Tax.

Case study on filing of returns.



Note: 80% Problem 20% Theory

Case Studies related to the above Topics to be discussed Examined Externally.

(Section C: Compulsory question for Case Studies)

Text Books

- 1 Gaur, and Narang, 2023-24. Income Tax Law & Practice [Forty Third Editions]. Kalyani Publishers, Chennai.
- 2 Mehrotra, H.C., and Goyal, S.P. 2023-24. Income Tax Law & Accounts [Fifty Sixth Edition]. Sahitya Bhawan Publication, Agra.

References

- 1 Vinoth K. Singhania, and Kapil Singhania, 2023-24. Direct Taxes Laws & Practices [Fifty Second Edition]. Taxmann Publication Pvt. Ltd., New Delhi.
- 2 Hariharan.N, Income Tax Law & Practices, [Eleventh Edition], Vijay Nicole Imprints Pvt Ltd, Chennai.
- 3 Jeevarathinam, M., and Vijay Vishnu kumar, C. 2023-24. Income Tax Law & Practices Scitech Publications India Pvt. Ltd., Chennai.
- 4 Kapil Singhania.2023-24. Income Tax Law & Practices, [Sixth Edition], Taxmann Publication Pvt. Ltd., New Delhi.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A2CB	RELATIONAL DATABASE MANAGEMENT SYSTEM	CORE	5		-	4

PREAMBLE

This course has been designed for students to learn and understand

- The intermediate level and skills with designing more database information System.
- The Architectural Design, Structural Embedded SQL
- The Hierarchical Approach and Network Concept

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the Database Management System.	K2
CO2	Summarize Database Architecture and Approaches	K2
CO3	Apply prolonged skill on Relational Approaches	K3
CO4	Appraise the structure of DML and Normalization concept	K5
CO5	Evaluate the knowledge on Relational Approaches	K5

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		
CO2		✓	✓	✓	✓
CO3	✓			✓	✓
CO4			✓		
CO5	✓	✓		✓	✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A2CB	RELATIONAL DATABASE MANAGEMENT SYSTEM	SEMESTER II
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Total Credits: 4

Total Instruction Hours: 72 h

Syllabus

Unit I Data base and E-R Models 14 h

Database System Applications-Database Systems Vs File Systems- View of data-Data Models-Database Languages- Database users & administrators. E-R Models: Basic concepts- Constraints-Keys-E-R diagram.

Unit II Database system Architecture and Data Structures 14 h

Database System Architecture - Basic Concepts: Data System, Operational Data, Architecture for a Database System, Distributed Databases. Data Structures and Corresponding Operators: Introduction, Relational Approach, Hierarchical Approach, Network Approach.

Unit III Relational Approaches and Algebra 14 h

Relational Approach: Relational Data Structure: Relation, Domain, Attributes, Key. Relational Algebra: Introduction, Traditional Set Operation - Attribute - Attribute names for derived relations - Special Relational Operations.

Unit IV DML and Normalization 15 h

DML - adding a new Row/Record - Customized Prompts - Updating and Deleting an Existing Rows/Records - retrieving Data from Table - Arithmetic Operations - restricting Data with WHERE clause - Sorting. Normalization: Functional dependency, First, Second, Third normal forms, Boyce - Codd Normal Form, Fifth Normal Form, Advantages of Normalization.

Unit V Hierarchical and Network Approach 15 h

Hierarchical Approach: IMS data structure - Physical Database, Database Description- Hierarchical sequence - External level of IMS: Logical Databases, the program communication block. Network Approach: Architecture of DBTG System. DBTG Data Structure: Sample Schema, Difference between subschema and schema-DBTG Data Manipulation

Note: Case Studies related to the above topics to be discussed. Examined externally (Section C: Compulsory question for case studies)

1. Case Study on Relationship between Relational data model and ER model
2. Case Study on Relational approach, hierarchical approach and network approach
3. Case Study on Traditional set operation and special set operation
4. Case Study on normalization
5. Case Study on DBTG

Text Books

- 1 Dates C.J, 2012, "An Introduction to Database System", Naroso Publication House, New Delhi.
- 2 M Parteek Bhatia, SanjvDatta and Ranitsingh. 2010, "Simplified approach to oracle, Kalyani Publishers", Nesssw Delhi

References

- 1 Abraham Silberschatz and Henry F. Korth, 2002, " Database Systems concepts, Tata McGraw Hill Publishing Company Ltd., New Delhi
- 2 Atul Kahate, 2009,"Introduction to Database Management Systems", Pearson Education Publication, New Delhi ,
- 3 Bipin C. Desai,1999,"An Introduction to Database System", Galgotia Publication, New Delhi.
- 4 Ramon A. Mataoledo,2005,"Fundamentals of Relational Database", TMH, New Delhi.



235CM2A2CP	RDBMS	SEMESTER II
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Total Credits: 2

Total Instructions Hours: 48 h

S.No.

Contents

- 1 Creation of table Software with the fields and insert the values:
- | Field name | Field type | Field size |
|------------------|------------|--------------------------|
| Programmer name | Character | 15 |
| Title | Character | 20 |
| Language used | Character | 15 |
| Software cost | Number | 10 with 2 decimal places |
| Development cost | Number | 10 |
| Software sold | Number | 3 |
- Queries:
1. Displaying the details of software developed by "PRAVEENA".
 2. Displaying the details of the packages whose software cost exceeds "1500".
 3. Displaying the details of the software that are developed in "Java".
 4. Displaying the price of costliest software developed in "Python".
 5. Displaying the details of the programmer whose language used is same as "Vikash".
- 2 Creation of table Company with the following fields and insert the values:
- | Field name | Field type | Field size |
|-----------------|------------|-------------------------|
| Company name | Character | 15 |
| Proprietor | Character | 15 |
| Address | Character | 25 |
| Supplier name | Character | 15 |
| No of employees | Number | 4 |
| GP percent | Number | 6 with 2 decimal places |
- Queries:
1. Displaying all the records of the company which are in the ascending order of GP percent
 2. Displaying the name of the company whose supplier name is "Telco".
 3. Displaying the details of the company whose GP percent is greater than 20 and order by GP percent
 4. Displaying the detail of the company having the employee ranging from 500 to 1000
 5. Displaying the name of the company whose supplier is same as like Tata's.
- 3 Creation of table named Employee with the following fields and insert the values:
- | Field name | Field type | Field size |
|---------------|------------|------------|
| Employee Name | Character | 15 |



Employee Code	Number	6
Address	Character	25
Designation	Character	15
Grade	Character	1
Date of Joining	Date	-
Salary	Number	10 with 2 decimal places

Queries:

1. Displaying name of the employees whose salary is greater than "Rs.12,000".
2. Displaying the details of employees in ascending order according to Employee Code.
3. Displaying the total salary of the employees whose grade is "A".
4. Displaying the details of the employee earning the highest salary.
5. Displaying the names of the employees who earn more than "Rohit"

Creation of table named Student with the following fields and insert the values:

Field name	Field type	Field size
Student Name	Character	15
Gender	Character	6
Roll No.	Character	10
Department Name	Character	15
Address	Character	25
Percentage	Number	4 with 2 decimal places

4

Queries:

1. Calculating percentage of the students.
2. Displaying the names of the students whose percentage is greater than 70
3. Displaying the details of the student who got the highest percentage.
4. Displaying the details of the students whose percentage is between 40 and 60.
5. Displaying the details of the students whose percentage is greater than the percentage of Roll No = 222CM005.

Creation of the table named PRODUCT with the following fields and insert the values:

Field name	Field type	Field size
Product no	Number	6
Product name	Character	15
Unit of measure	Character	15
Quantity	Number	6 with 2 decimal places
Rate	Number	4 with 2 decimal places
Total amount	Number	8 with 2 decimal places

5

Queries:

1. Updating the statements to calculate the total amount and selecting the record.



2. Selecting the records whose unit of measure is "Kg".
3. Selecting the records whose quantity is greater than 10 and less than or equal to 20.
4. Calculating the entire total amount by using sum operation.
5. Calculating the number of records whose unit price is greater than 50 with count operation.

Creation of table PAYROLL with the following fields and insert the values:

Field name	Field type	Field size
Employee no.	Number	8
Employee name	Character	8
Department	Character	10
Basic pay	Number	8 with 2 decimal places
HRA	Number	6 with 2 decimal places
DA	Number	6 with 2 decimal places
PF	Number	6 with 2 decimal places
Net pay	Number	8 with 2 decimal places

6

Queries

1. Updating the records to calculate the net pay.
2. Arranging the records of employees in ascending order of their net pay.
3. Displaying the details of the employees whose department is "sales".
4. Selecting the details of employees whose HRA \geq 1000 and DA \leq 900.
5. Selecting the records in descending order.

Preparation of Table Publisher and Book with the following fields:

Field Name	Field Type	Field Size
Publisher Code	Var Char	5
Publisher Name	Var Char	10
Publisher city	Var Char	12
Publisher State	Var Char	10
Title of book	Var Char	15
Book Code	Var Char	5
Book Price	Var Char	5

7

Queries:

1. Inserting the records into the table publisher and book.
2. Designing the structure of the tables.
3. Displaying the details of the book with the title "RDBMS".
4. Displaying the details of the book with price $>$ 500.
5. Displaying the details of the book with publisher name "Pearson".
6. Selecting the book code, book title, publisher city is "New Delhi".
7. Selecting the book code, book title and book price sort by book price.
8. Counting the number of books of publisher starts with "Sultan chand".
9. Search the name of the publisher starting with "P".

Create a table Deposit and loan with the following fields:

8

Table: Deposit

Accno	Number	(3)
-------	--------	-----



Account	varchar2	(6)
Branch Name	varchar2	(15)
Custname	varchar2	(20)
Balanceamt	varchar2	(10)

Table: Loan

Loanno	Number	(5)
Branchname	Varchar2	(15)
Custno	Varchar2	(30)
Loanamt	Number	(10)

Queries:

- Insert the records into the table.
- Display the records of Deposit and Loan.
- Find the number of loans with amount between 10000 and 50000.
- List in the alphabetical order the names of all customers who have a loan at the Coimbatore branch.
- Find the average account balance at the Coimbatore branch.
- Update deposits to add interest at 5% to the balance.
- Arrange the records in descending order of the loan amount.
- Find the total amount of deposit in 'Erode' branch.

Create Employee and Department table with following fields

Table: Employee

Eno	number	(5)	Primary Key
Ename	Varchar2	(20)	Not null
Deptno	number	(2)	Not null
Designation	Char	(10)	Not null
Sal	number	(9,2)	Not null
Comm	number	(7,2)	null

Table: Department

Deptno	Varchar2	(15)	Primary key
Deptname	Varchar2	(15)	Not null

Queries:

9

- List the department number and the total salary payable in each department
- List the total salary, maximum and minimum salary and the average salary of employees designation wise
- Display the empno, name whose shift is morning
- List average salary for all departments employing more than five people
- List jobs of all the employees where maximum salary is greater than or equal to 5000
- Raise employee salary by 0.15 for the employees working as „programmers“
- Delete the records where commission is "null"



- h) List the average salary and number of employees working in the department „20“.
- 10 Generate a table for railway reservation with necessary fields. Insert the data values and use DCL and TCL commands like GRAND, REVOKE, COMMIT, ROLLBACK and SAVE POINT commands.
- 11 Construct a table for library management system with two table masters and transaction and create a report based on the date of return column.
- 12 Preparation of questionnaire for a research problem by using Google Forms - use different scales to collect data for the research problem.



Course Code	Course Name	Category	L	T	P	Credit
234DA2A2EA	BUSINESS ANALYTICS	EDC	5	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- Concepts of data processing, data warehousing and data modeling
- The different statistical techniques to analyze business data
- Analysis of data using spreadsheets

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the concepts of data processing, business intelligence	K2
CO2	Apply the concepts of data warehouse for data storage	K3
CO3	Understand the techniques of data modeling and enterprise reporting	K2
CO4	Analyze and apply the appropriate statistical technique for a managerial problem	K4
CO5	Apply data analysis techniques for real-world decision-making problems using spreadsheets	K3

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		✓
CO2		✓		✓	
CO3	✓	✓	✓		
CO4	✓		✓	✓	✓
CO5	✓	✓	✓	✓	

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input checked="" type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input checked="" type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



234DA2A2EA	BUSINESS ANALYTICS	SEMESTER II
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Total Credits: 4

Total Instruction Hours: 60 h

Syllabus

Unit I Data Processing Architectures and BI 12 h

Key Purpose of Using IT in Business - Enterprise Applications - Types of Digital Data - Structured Data - Unstructured Data - Semi Structured Data - OLTP - OLAP - OLAP Architectures - OLAP Operations - BI Component Framework - BI Users - BI Applications - BI Roles and Responsibilities

Case Study : Predictive Trendline Models

Unit II Data Warehouse and Data Mart 12 h

Need for Data Warehouse - Definition - Data Mart - ODS - Goals - Components of Data Warehouse - Extract, Transform, Load - Data Integration - Data Integration Technologies - Data Quality - Data Profiling.

Case Study : ETL in McDonalds

Unit III Data Modeling Techniques 12 h

Data Modeling Basics - Types of Data Model - Data Modeling Techniques - Fact Table - Dimension Table - Dimension Models - Dimension Modeling Life Cycle - Enterprise Reporting - Balanced Scorecard - Dashboards

Case Study : Data Modeling in Advertising

Unit IV Statistical Analysis 12 h

Statistics in Analysis - Data, Data Description and Summarization - Statistical Tests - Hypothesis and t-Test - Correlation Analysis - Regression - ANOVA - F-Test - Time Series Analysis

Case Study : Applying Statistics to detect financial problems

Unit V Data Analysis with Spreadsheets 12 h

Importing and Exporting Data in Excel - Formulas and Functions: Logical, Summarizing, Statistical and Financial Functions - Data Visualization with Charts - Complex Data Analysis: ANOVA in Excel - Forecasting in Excel

Case Study : Social Media Analytics



Text Books

- 1 R N Prasad, Seema Acharya, Fundamentals of Business Analytics, 2016, 2nd Edition, Wiley India Pvt. Ltd
- 2 Manisha Nigam, 2019, Data Analysis with Excel, BPB Publications

References

- 1 S. Christian Albright, Wayne L. Winston, Business Analytics: Data Analysis & Decision Making, 2019, 6th Edition, Cengage Learning India.
- 2 Regi Mathew, Business Analytics for Decision Making, 2020, Pearson Education
- 3 Ramesh Sharda, Dursun Delen, Efraim Turban, Business Intelligence and Analytics: Systems for Decision Support, 2018, Pearson Education.
- 4 Asslani Arben, Business Analytics with Management Science Models and Methods, 2017, Pearson Education



Course Code	Course Name	Category	L	T	P	Credit
235IB2A2DB	DIGITAL MARKETING	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- The importance of digitizing marketing operations.
- The dynamics of digital media advertising.
- The Mobile marketing and web analytics

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Explain the concept of digital marketing and its plan.	K2
CO2	Apply the concepts of display ads and email marketing in digital campaigns.	K3
CO3	Apply effective social media marketing strategies for various types of industries.	K3
CO4	Outline the concept of Search Engine Advertising and Search Engine Optimization	K4
CO5	Analyze the impact of Mobile Marketing and Web Analytics	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1		✓			✓
CO2		✓			✓
CO3		✓	✓		✓
CO4			✓		✓
CO5					✓

COURSE FOCUSES ON

✓	Skill Development	✓	Entrepreneurial Development
✓	Employability		Innovations
	Intellectual Property Rights		Gender Sensitization
	Social Awareness/ Environment		Constitutional Rights/ Human Values/ Ethics



235IB2A2DB	DIGITAL MARKETING	SEMESTER II
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Introduction to Digital Marketing 10 h

Digital Marketing: Meaning- Evolution - Traditional Vs digital marketing- Grehan's 4Ps of digital marketing- P-O-E-M framework- Digital marketing plan- Ethical challenges- Information technology act, 2000- Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.

Case Study on digital marketing strategy.

Unit II Display Advertising and Email Marketing 10 h

Concept of display advertising- Types of display Ads- Display plan- Targeting - Remarketing - Interest categories- Geographic language- Ad fraud- Brand health - Email marketing - Building a list- Content strategies - Email newsletter - Automating email marketing- Concept of marketing analytics.

Case Study on ethical challenges in digital marketing.

Unit III Social Media Marketing 10 h

The role of social media marketing - Benefits and challenges in social media marketing- Goals and strategies - Identifying target audiences - Social media platforms and social network sites - Micro blogging - Video marketing - Social media monitoring and maintenance- Social media marketing plan.

Case Study on social media marketing

Unit IV Search Engine Advertising and Search Engine Optimization 9 h

Search advertising- Understanding Ad placement- Ad ranks- Creating and enhancing the first Ad campaign - Performance reports- Google ad sense- Search engine optimization - How search engine works- SEO phases- On and Off page optimization.

Case Study on content marketing.

Unit V Mobile Marketing and Web Analytics 9 h

Mobile advertising - Mobile marketing toolkit - Mobile marketing features - Mobile marketing on social networks- Mobile analytics- Web analytics - Key metrics - Making web analytics actionable - Types of tracking codes.

Case Study on mobile marketing

Note: Case Study examined externally (Section C: Compulsory question)



Text Books

- 1 Seema Gupta, 2018 , “Digital Marketing” , 2nd Edition, Tata Mc Graw Hill, United States.
- 2 Damian Ryan and Calvin Jones, 2008 , “Understanding Digital Marketing” , 4th Edition, Kogan Page, United Kingdom.

References

- 1 Teresa Pineiro-Otero and Xabier Martinez-Rolan, 2016, “Understanding Digital Marketing- Basics and Actions”, 1st Edition, Springer International Publishing, New York City..
- 2 Ryan, D. and Jones, C , 2012, “Understanding digital marketing: Marketing strategies for engaging the digital generation”, 3rd Edition, Kogan Page, United Kingdom
- 3 Teixeira, J, 2010, “Your Google Game Plan for Success: Increasing Your Web Presence with Google Ad Words, Analytics and Website Optimizer”, 1st Edition, John Wiley & Sons, United States..
- 4 Evans. D. and Bratton, S, 2008, “Social Media Marketing: An Hour a Day” , 2nd Edition, Sybex, United Kingdom..



Course Code	Course Name	Category	L	T	P	Credit
235CM2A2DA	INFORMATION SECURITY	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- The concept of Information Security
- To know different Security Models
- The knowledge on various types of Threats and Viruses

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the need of Information Security, polices, standards and security blue print of an organization	K2
CO2	Discover the behavior of different threats and attacks	K3
CO3	Interpret different security planning and risk management	K2
CO4	Apply cryptography in real time applications	K3
CO5	Analyze the Security and Personal Maintenance to avoid Threats and Attacks	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓		✓	✓
CO2	✓	✓		✓	
CO3				✓	✓
CO4		✓	✓		
CO5	✓		✓	✓	✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A2DA	INFORMATION SECURITY	SEMESTER II
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Introduction to Information Security 10 h

History of Information Security-Components of an Information System-Balancing Information Security and Access-Approaches of Information Security Implementation-Security in the System Development Life Cycle: The System Development Life Cycle-Traditional Development Methods-Software Design Principles.

Unit II Threats and Attacks 10 h

Compromises to Intellectual Property: Software Privacy- Copyright Protection and User Registration-Power Irregularities-Espionage or Trespass-Hackers-Password Attacks-Forces of Nature-Human Error or Failure- Information Extortion-Sabotage or Vandalism-Software Attacks-Technical Hardware/Software Failures or Errors-Thefts.

Unit III Planning and Risk Management 10 h

Information Security Planning and Governance-Information Security Policy, Standards and Practices- Security Blueprint- Design and Security Architecture: Spheres of Security-Levels of Controls-Defense in Depth-Security Training and Awareness. Overview of Risk Management-Risk Identification-Risk Assessment and Control.

Unit IV Security Technology 8 h

Access Control: Access Control Mechanisms. Firewalls-Cryptography-Foundation of Cryptography-Cipher Models-Physical Access Controls-Fire Security- Interpretation of Data-Securing Mobile and Portable Systems

Unit V Security and Maintenance 10 h

Positioning and Staffing the Security Functions-Credentials for Information Security Professionals-Employment Policies and Practices. Information Security Maintenance: Security Management and Maintenance Models-Digital Forensic.



Note: Case Studies related to the above topics to be discussed. Examined externally (Section C: Compulsory question)

1. Case Study on Securing the Enterprise
2. Case Study on Threats
3. Case Study on Security Policies
4. Case Study on Cryptographic Techniques
5. Case Study on Staffing the Security Functions

Text Books

- 1 Michael E. Whitman, Herbert J. Mattort, 2018, Principles of Information Security, Cengage Publication.
- 2 Mayank Bhushan, Rajkumar Singh Rathore, Aatif Jamshed, 2017, Fundamental of Cyber Security , BPB Publications.

References

- 1 Nilakshi Jain, Ramesh Menon, 2021, Cyber Security and Cyber Laws, Wiley India Pvt Ltd.
- 2 Nina Godbole, 2019, Information System Security, Wiley India Pvt Ltd.
- 3 Anju Gautam, 2011, Cyber Security, Sonali Publications, New Delhi.
- 4 Nina Godbole, Sunit Belapure, 2011, Cyber Security, Wiley India Edition Publications.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A2DB	BANKING SERVICES	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- The sources and application of revenue in banks and its regulatory frame work
- The diversification activities of banks
- The delivery channels in E-banking

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Discuss the regulatory framework in respect to banking regulation in Indian banking sector	K2
CO2	Analyse various sources and applications of funds in banks	K4
CO3	Interpret on the pattern of investment and risk management	K5
CO4	Examine various reasons for Diversification of banks into securities market	K3
CO5	Illustrate the E- banking services and Digital Currency	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓	✓	✓
CO2	✓	✓	✓	✓	
CO3	✓	✓		✓	✓
CO4	✓		✓		
CO5	✓	✓	✓		✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input checked="" type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A2DB	BANKING SERVICES	SEMESTER II
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Indian Banking System 10 h

Overview of Indian Banking system - Structure - Functions - Key Regulations in Indian Banking sector -RBI Act, 1934/ 2006 -Banking Regulation Act, 1949- Negotiable Instruments Act 1881/ 2002 - Definition: Banking- Customer-Relationship between Banker and Customer- Rights, Duties and obligations of a banker.

Unit II Sources and Applications of Bank Funds 10 h

Different forms of Deposits and Non-Deposit sources- Borrowing of funds by banks- Application of bank funds - Investments and Lending functions, Principles of bank lending- Types of lending - Different types of loans and Advances -Methods of granting advances- Secured and Unsecured advances.

Unit III Risk Management in Banks 10 h

Investment Management -Asset and Liability Management - Financial Distress - Signal to borrowers -Risk Management - Types of Risk - Credit risk, operational and Market risk- Risk Management Methodology - Forex - Credit market -and solvency risks - NPA's Provision - Current issues on NPA's.

Unit IV Diversification in Banking Activities 8 h

Diversification of banks into securities market, Mutual funds, Insurance business, Capital market, Clearing corporation, Merchant banking- Take-out Finance- Securitization- Reverse Mortgage Loans.

Unit V E-banking services 10 h

Delivery channels of Banking services- Branches- ATM- Phone banking, Kiosks- PC banking through Personal financial software and Proprietary software- Internet banking- Online Banking- Interactive TV- Smart card and E- Cash. Electronic Banking- Components/ Types- Advantages and Limitations- Digital currency: Characteristics- Types- Pros and Cons.



Note: Case Studies related to the above topics to be discussed. Examined externally (Section C: Compulsory question for case studies)

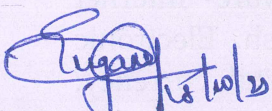
1. Case Study on rights and obligations of a banker
2. Case Study on borrowing of funds by banks
3. Case Study on the analyses of Credit risk, operational and Market risk
4. Case Study regarding diversification of banking services
5. Case Study on forecasting of cash demand at ATMs


Text Books

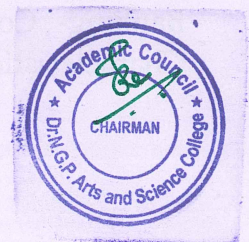
- 1 S.Natarajan and Dr.R. Parameswaran (2020), Indian Banking, S. Chand Publication
- 2 N.C. Majumdar (2015), A Textbook on fundamentals of Modern Banking, New Central Book Agency Ltd.

References

- 1 K C Shekhar and Lekshmy Shekhar (2020), Banking Theory and Practice, Vikas Publishing House Pvt Ltd.
- 2 N. Mukund Sharm, 2015, "Banking Services" - Himalaya Publishing House
- 3 Madu Viji & Swati Dhavan ,2016, "Merchant Banking & Financial Services", McGraw Hill Education.
- 4 Suresh Padmalatha, Justin Paul ,2017, "Management of Banking Services"- Pearson Education
- 5 Pratap G Subramanyam, 2012, "Investment Banking", Tata McGraw Hill.


 BoS Chairman/HoD
 Department of Commerce (CA)
 Dr. N. G. P. Arts and Science College
 Coimbatore – 641 048

		
Dr.N.G.P. Arts and Science College		
APPROVED		
BoS- 16 th 18.10.23	AC - 16 th 13.12.23	GB - 21 st 05.01.24



Dr.NGPASC
 COIMBATORE | INDIA

M.Com. (CA) (Students admitted during the AY 2023-24)

Course Code	Course Name	Category	L	T	P	Credit
235CO2A3CA	BUSINESS RESEARCH METHODS	CORE	5	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the fundamentals of Research.
- about research design.
- the data processing and hypothesis.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	understand the concept of research, types.	K2
CO2	develop a research design.	K3
CO3	analyze the methods for data collection.	K3
CO4	categorize the data analysis.	K4
CO5	determine and conclude the report.	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓	✓	
CO2			✓	✓	✓
CO3	✓	✓	✓	✓	✓
CO4	✓		✓		
CO5	✓	✓	✓	✓	✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CO2A3CA	BUSINESS RESEARCH METHODS	SEMESTER III
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Total Credits: 4

Total Instruction Hours: 60 h

Syllabus

Unit I Introduction to Business Research 12 h

Business Research: - Definition and significance - Features of business research - The research process - Variable - Proposition - Types of research - Exploratory and causal research - Basic and applied research - Descriptive research - Phases of business research - Research Hypothesis - Characteristics - Research in an evolutionary perspective - Role of theory in research - Theory building - Induction and Deduction Theory.

Case study on Research hypothesis.

Unit II Research Design 10 h

Research Design - Definition - Types of research design - Exploratory and causal research design - Descriptive and experimental design - empirical research design - Types of experimental design - Validity of findings - Internal and external validity - Variables in research - Measurement and scaling - Different scales - Construction of instrument - Validity and reliability of instrument.

Case study on Designing a research.

Unit III Data Collection and Sampling 14 h

Data Collection: - Types of data - Primary Vs secondary data - Methods of primary data collection - Survey Vs observation - Experiments - Construction of questionnaire and instrument - Validation of questionnaire - Sampling plan - Sample size - Sampling methods - Determinants of optimal sample size - Sampling techniques - Probability Vs non-probability sampling methods.

Case study on Sampling.

Unit IV Data Processing, Hypothesis 12 h

Data Processing: Processing stages - Editing - Coding and data entry - Validity of data - Qualitative Vs quantitative data analysis - Frequency table - Contingency table - Graphs - Measures of central tendency and index number - Testing of Hypothesis - Bivariate and multivariate statistical techniques - Factor analysis - Discriminant analysis - Cluster analysis - Interpretation.

Case study on Testing of hypothesis.



Note: Question paper shall contain 60% theory and 40% problem.

Note: Case Studies related to the above topics to be discussed. Examined externally.

(Section D : Compulsory question for case studies)

Text Books

- 1 Kothari C. R., 2022, "Research Methodology: Methods and Techniques", New Age International Publishers, New Delhi.
- 2 Joy Joseph Puthussery, 2021, "Business Research Methods", 1st edition, ANE Books, New Delhi.

References

- 1 Pamela S. Schindler, 2022, "Business Research Methods", 13th edition, McGraw Hill Education India Pvt. Ltd., Chennai.
- 2 William G. Zikmund, 2021, "Business Research Methods", 9th edition, Cenage, New Delhi.
- 3 Rouger Bougie, 2021, "Research Methods for Business", 8th edition, Wiley, New Delhi.
- 4 Naval Bajpai, 2020, "Business Research Methods", 2nd edition, Pearson India Education Services Pvt. Ltd., Noida.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A3CA	APPLIED COST ACCOUNTING	CORE	5	1	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the costing terms in business for identification, analysis and classification of cost components
- the concept and principles of material control and issues of material, labor costing, controlling overhead and treatment of process costing and its losses
- about various methods relating to job, contract and operating costing

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand cost concepts for preparation of cost sheet and control the issue of materials	K2
CO2	Describe material control and material issues	K2
CO3	Apply different methods of labour control & overhead costing	K4
CO4	Analyze the process costing, job costing and batch costing system	K3
CO5	Use the skills on contemporary areas of operating costing and various techniques in contract costing	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		✓
CO2	✓	✓	✓	✓	✓
CO3	✓			✓	✓
CO4		✓			✓
CO5	✓	✓	✓		✓

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input checked="" type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A3CA	APPLIED COST ACCOUNTING	SEMESTER III
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Total Credits: 4

Total Instruction Hours: 72 h

Syllabus

Unit I Introduction of Cost and cost Sheet 14 h

Introduction of Cost Accounting: Meaning and Definitions - Difference between Financial and Cost Accounting - Installation of Costing System - Characteristics of Ideal Costing System - Methods of Costing - Elements of Costing - Cost Concept - Cost Classification - Cost Control- Preparation of Cost Sheet -Tender and Quotation. (Problem and Theory).

Case Study on cost elements with suitable example.

Unit II Material Control and Issues 14 h

Material Control: Objectives- Essentials of material Control -Purchase Control- centralized and decentralized purchasing- Procedure and documentation involved in purchasing- Advantages and disadvantages. Stores Control- Requisition for stores -Stock level- EOQ- ABC analysis- JIT. Inventory Control - Techniques of inventory control - Perpetual inventory system-- Methods of valuing material issue - LIFO - FIFO - Simple Average - Weighted Average.

Case Study on Material control and issues.

Unit III Labour and Overhead 15 h

Labour: Accounting and Control of labour cost. Time keeping and time booking. Concept and treatment of idle time, over time, labour turnover and fringe benefits. Methods of wage payment and the Incentive schemes - Halsey, Rowan, and Taylor's Differential piece wage (Problem and Theory).

Overhead: Meaning and Classifications of Overheads - Steps in Overhead Accounting - Allocation and Apportionment - Absorption of Overhead Cost - Difference between Cost Allocation, Apportionment and Reapportionment - Computation of Machine Hour Rate (Problem and Theory).

Case Study on procedure adopted by the company for the distribution of overhead costs.

Unit IV Process, Job and Batch Costing 14 h

[Process Costing: Process Accounts - Process Losses - Normal and Abnormal losses - Abnormal Gain - Treatment - Joint Products and By products - Methods of Apportioning Joint costs - Accounting for By products (Simple Problem and Theory).

Job Costing: Objectives - Procedure. Batch Costing - Nature and Use of Batch Costing - Determination of Economic Batch Quantity (Problem and Theory).

Case Study on adoption of process costing in industries which generate specific product types.



Unit V Operating and Contract Costing

15 h

Operating costing or service costing - Transport, Hotel and Hospital - Reconciliation of cost and Financial accounts. (Problem and Theory).

Contract Costing - Specific aspects of Contract Costing - Profit on Incomplete Contracts - Profit on Completed Contracts (Problem and Theory).

Case Study on operating costing adopted by the transport industry.

Note: Distribution of Marks: Theory 40% and Problem 60%.

Case Studies related to the above topics to be discussed. Examined externally (Section D: Compulsory question)

Text Books

- 1 T.S.Reddy&Y.Hari Prasad Reddy, 2021, Cost Accounting, Margham Publications, Chennai.
- 2 Jain S.P and Narang K.L. 2019. Cost Accounting, Kalyani Publishers, New Delhi.

References

- 1 Pillai.R.S.N. and Bagavathi 2019. Cost Accounting. Sultan Chand and Company Ltd., New Delhi.
- 2 Dr.Ramachandran&Dr.R.Srinivasan, 2022 Cost Accounting [Theory, Problems and Solutions] 7th Revised Edition, Sriram Publications
- 3 MaheshwariS.N. 2018, Cost Accounting, Sultan Chand and Company Ltd., New Delhi.
- 4 M.N.Arora& Priyanka Katyal, 2019. Cost Accounting. Vikas Publishing House, New Delhi.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A3CB	MARKETING MANAGEMENT	CORE	5	1	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the basic concepts and techniques of marketing management
- the behavior of consumers and create awareness of marketing Product
- the marketing problems in the complex and fast changing business environment.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	understand the basic concepts and segmentation of Market	K2
CO2	infer the consumer behavior and their decision making process	K2
CO3	analyze and Make decisions on product mix and policy of price fixation	K4
CO4	demonstrate knowledge of channels of distribution and understand the uses of promotional methods	K2
CO5	evaluate the recent trend and growth of E-marketing and AI-Marketing	K5

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓		✓		✓
CO2		✓		✓	
CO3	✓	✓		✓	
CO4	✓		✓	✓	
CO5		✓	✓		✓

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input checked="" type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A3CB	MARKETING MANAGEMENT	SEMESTER III
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Total Credits: 4

Total Instruction Hours: 60 h

Syllabus

Unit I Introduction of Marketing 12 h

Fundamentals of marketing - Role of Marketing - Relationship of Marketing with other functional areas - Concept of Marketing - Marketing-mix - Marketing environment - Market segmentation and Targeting.

Case Study on Marketing Mix and Marketing Environmental issues.

Unit II Consumer Behaviour 12 h

Concept- significance and factors influencing consumer behavior- Buying Motives - Buying habits - Buying process - Customer-relationship management- Marketing Research.

Case Study on Consumer behavior and buying habits.

Unit III Product Management and Pricing Decisions 10 h

Concept of Product- Product-mix- Product-line and Product Life-cycle- Product positioning- New product development- Brand management- Packaging. Pricing- Price policy considerations- objectives and strategies of pricing.

Case Study on Product Mix and New product Development.

Unit IV Distribution and Advertising Management 14 h

Management of Physical Distribution - Distribution channel intermediaries - channel management decisions - Organized retailing - Direct marketing - Internet marketing - Promotion: Methods of promotion- Advertising - concept and media - their relative merits and limitations - Personal selling- Concept- merits and demerits; Sales Promotion - concept and types.

Case Study on Selection of Distribution Channel and Advertising Media.

Unit V E- Marketing and AI in Marketing 12 h

E-Marketing; Objectives - Concept and Nature- Importance and advantages of e-marketing - Reason for growth of e-marketing. AI in Marketing- Concepts - Applications of AI in marketing- Benefits and Challenges - M-Commerce- Electronic payment system and Security issues.

Case Study on Growth and Issue of E-Marketing and AI- Marketing.



Note: Case Studies related to the above topics to be discussed. Examined externally
(Section D: Compulsory question)

Text Books

- 1 Philip Kotler, 2015, "Marketing Management", Fifteenth edition, Prentice Hall of India / Pearson Education, New Delhi.
- 2 Ramaswamy, V. S. & Namakumari S, 2018, "Marketing Management Indian Context with Global Perspective" 6th Edition, Sage Publications India Pvt Ltd., New Delhi.

References

- 1 Rajan Saxena, 2019, "Marketing Management", 6th edition, Tata MCGraw Hill, New Delhi.
- 2 R.S.N. Pillai and Bagavathi, "Modern Marketing, Text and Cases", S Chand & Co Ltd., New Delhi.
- 3 Rajan Nair, 2019 "Marketing", Sultan Chand and Sons, New Delhi
- 4 Srinivasan R, 2010, "Case Studies in Marketing: The Indian Context", Prentice Hall, New Delhi.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A3CC	SOFTWARE PROJECT MANAGEMENT	CORE	5	-	-	5

PREAMBLE

This course has been designed for students to learn and understand

- the basics of Project planning and Evaluation
- Project life cycle models and Risk Management
- the concept of Project Management and Control

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand Project Planning and Project portfolio Management	K2
CO2	interpret Software Process Models and Estimation Techniques	K2
CO3	identify the techniques of Activity Planning and Risk Management	K3
CO4	apply the Framework for Management and control	K3
CO5	analyze People in Software Environment	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1		✓		✓	
CO2	✓		✓		✓
CO3			✓		✓
CO4		✓			✓
CO5			✓		✓

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A3CC	SOFTWARE PROJECT MANAGEMENT	SEMESTER III
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Total Credits: 5

Total Instruction Hours: 60 h

Syllabus

Unit I Project Evaluation and Project Planning 12 h

Importance of Software Project Management - Activities - Methodologies - Categorization of Software Projects - Setting objectives - Management Principles - Management Control - Project portfolio Management - Cost-benefit evaluation technology - Risk evaluation - Strategic program Management - Stepwise Project Planning.

Case study on Project Planning.

Unit II Project Life Cycle and Effort Estimation 12 h

Software process and Process Models: Waterfall Model - Spiral Model - Rapid Application Development - Dynamic System Development Method- Agile methods -Extreme Programming- Managing Interactive Processes - Basics of Software estimation - Effort and Cost estimation techniques - COSMIC Full function points - COCOMO II - a Parametric Productivity Model.

Case study on COCOMO Model.

Unit III Activity Planning and Risk Management 12 h

Objectives of Activity planning - Project schedules - Activities - Sequencing and scheduling - Network Planning models - Formulating Network Model - Forward Pass & Backward Pass techniques - Identifying the Critical path. Risk Management: Risk - Categories of Risk - Framework for Dealing with Risk: Risk Identification - Assessment - Risk Planning -Risk Management.

Case study on Risk Management.

Unit IV Project Management and Control 12 h

Framework for Management and control - Collection of data - Visualizing progress - Cost monitoring - Earned Value Analysis - Prioritizing Monitoring - Change Control - Software Configuration Management - Managing contracts: Contract Management.

Case study on Contract Management.

Unit V Staffing in Software Projects 12 h

Managing people - Organizational behavior - Best methods of staff selection - Motivation - The Oldham - Hackman job characteristic model - Stress - Health and Safety - Ethical and Professional concerns - Working in teams - Decision making - Organizational structures - Dispersed and Virtual teams - Communications genres - Communication plans - Leadership.

Case study on People Management.



Note: Case Studies related to the above topics to be discussed. Examined externally (Section D: Compulsory question)

Text Books

- 1 Bob Hughes, Mike Cotterell and Rajib Mall, 2012, "Software Project Management", Fifth Edition, Tata McGraw Hill, New Delhi.
- 2 Robert K. Wysocki, 2011, "Effective Software Project Management", Wiley Publication.

References

- 1 Bob Hughes And Mike Cotterell, 2019, "Software Project Management", Second Edition, Tata Mc Graw Hill, New Delhi.
- 2 Pankaj Jalote, 2015, "Software Project Management" First Edition, Pearson Publication.
- 3 Walker Royce, 1998, "Software Project Management, Addison-Wesley.
- 4 Dr. Meenakshi A. Thalor, Ms. Veena Bhende, 2023, "Software Project Management", Third Edition, NiraliPrakashan.



235CO2A3CP	CORE PRACTICAL: STATISTICAL TOOLS FOR RESEARCH	SEMESTER III
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Total Credits: 2
Total Instructions Hours: 48 h

S.No	Contents
1	Data Set: Creating a new data set - Frequency distribution - Valid Variable Names - Variable View
2	Measures of central tendency: Mean, Median, Mode
3	Measures of Dispersion: Range - Standard Deviation, Relative Standard Deviation
4	Measures of Symmetry: Skewness and Kurtosis
5	Error Analysis: Confidence limits of a measurement - Propagation of errors - Propagation of random errors and propagation of systematic errors.
6	Graphical outputs: Histogram- Bar charts-scatter Plots-Pie charts
7	Parametric Test: T-Test: Independent T -Test, Paired Sample T- Test, One Sample T-Test, Anova.
8	Non-Parametric Test: Mann Whitney U test, Kruskal Wallis H Test, The Mann-Kendall Trend Test, Chi square Tests, Test of Goodness of fit, Friedman Test
9	Measures of Relationship: Pearson correlation, Spearman's Rank order Correlation, Kendalls Tau-b Correlation, Calculate Bivariate Correlation.
10	Measures of Relationship: Linear Regression, Logistics regression, Multiple regression, Logit and Probit regression.
11	Multi variate Analyses: Factor Analyses
12	Reliability Analyses: Cronbach alpha



Course Code	Course Name	Category	L	T	P	Credit
235CO2A3DA	SERVICES MARKETING	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the fundamentals of services marketing.
- strategic and tactical aspects of services marketing.
- the concept of service marketing mix.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	understand the aspects of marketing of particular relevance to service producing organizations.	K2
CO2	recognize the present strategies and approaches for addressing these challenges.	K3
CO3	identify services decision problems, ascertain alternatives, make decisions.	K2
CO4	employ the basic knowledge on challenges in distribution process.	K2
CO5	analyze the present scenario on the services in the organized retailing.	K3

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓	✓	
CO2			✓	✓	✓
CO3	✓	✓	✓		✓
CO4	✓	✓			✓
CO5	✓	✓	✓	✓	✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input checked="" type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CO2A3DA	SERVICES MARKETING	SEMESTER III
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Introduction to services marketing 12 h

Introduction: Nature and Scope of services characteristics of services, classification of services - need for service marketing - reasons for the growth of services sector, Overview of marketing Different Service Sectors -Marketing of Banking Services - Marketing in Insurance Sector - Marketing of Education Services.

Case studies: Sullivan Ford Auto World, Dr. Beckett's Dental Office.

Unit II Consumer Behavior in Services Marketing 10 h

Consumer Behavior in Services Marketing Customer Expectations on Services-Factors influencing customer expectation of services. - Service Costs experienced by Consumer, the Role of customer in Service Delivery, Conflict Handling in Services, Customer Responses in Services, Concept of Customer Delight

Case studies: Bouleau & Huntley: Cross-selling Professional Services

Uber: Competing as Market Leader in the US versus Being a Distant Second in China.

Unit III Customer Relationship marketing and Services Market Segmentation 10 h

Customer Relationship marketing: Meaning -Importance of customer & customer's role in service delivery, Benefits of customer relationship, retention strategies.

Services Market Segmentation: - Market segmentation -Basis & Need for segmentation of services, bases of segmentation services, segmentation strategies in service marketing.

Case studies: Banyan Tree: Designing and Delivering a Branded Service Experience, Kiwi Experience

The Accra Beach Hotel: Block Booking of Capacity during a Peak Period.

Unit IV Customer Defined Service Standards 8 h

Customer Defined Service Standards - Hard and Soft, Concept of Service Leadership and Service Vision -Meeting Customer Defined Service Standards - Service Flexibility Versus Standards - Strategies to Match Capacity and Demand - managing Demand and Supply of Service -applications of Waiting Line and Queuing Theories to Understand Pattern Demand.

Case studies: Starbucks: Delivering Customer Service, LUX*: Staging a Service Revolution in a Resort Chain, KidZania: Shaping a Strategic Service Vision for the Future.



Unit V Service Development and Quality Improvement

8 h

Service Development - need, importance and Types of New Services - stages in development of new services, service Quality Dimensions - Service Quality Measurement and Service Mapping, Improving Service Quality and Service Delivery, Service Failure and Recovery.

Case studies : National Library Board Singapore: World-Class Service through Innovation and People Centricity, Massachusetts Audubon Society.

Note: Case Studies related to the above topics to be discussed. Examined externally.
(Section D: Compulsory question for case studies)

Text Books

- 1 NATARAJAN L, 2018, "SERVICES MARKETING", Margham Publication, Chennai.
- 2 Priyanka B. Joshi, 2015, "Services Marketing", Everest Publishing House, Pune.

References

- 1 Jochen Wirtz, Christopher Lovelock, Jayanta Chatterjee, 2017, "Services Marketing: People, Technology, Strategy", Pearson, New Delhi.
- 2 Valeire Zeithnal, Mary Jo Bitner, Dwayne D. Gremler, Ajay Pandit, 2017, "Services Marketing: Integrating Customer Focus Across the Firm", McGraw Hill, New York.
- 3 K. Douglas Hoffman, John E. G. Bateson, 2017, "Services Marketing: Concepts, Strategies and Cases", Cengage India.
- 4 Valeire Zeithnal, Mary Jo Bitner, Dwayne D. Gremler, Ajay Pandi, 2018, "Services Marketing: Integrating Customer Focus Across the Firm", McGraw Hill Publication, New York.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A3DA	DATA MINING AND DATA INTERPRETATION	DSE	4		-	4

PREAMBLE

This course has been designed for students to learn and understand

- the basic concepts of data mining principles and methods.
- the methodologies used in data mining architecture.
- data mining and visualization Techniques.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	outline the concepts of data mining	K2
CO2	understand the data mining Functionalities and Architecture	K2
CO3	demonstrate the techniques of Data warehousing and Preprocessing	K3
CO4	apply various clustering methods for analysis.	K3
CO5	analyze the role of Data Interpretation and Visualization	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓		✓		
CO2	✓		✓		✓
CO3			✓		✓
CO4	✓	✓		✓	
CO5		✓		✓	

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A3DA	DATA MINING AND DATA INTERPRETATION	SEMESTER III
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Introduction to Data Mining 10 h

Data - Information - Knowledge - Definition of Data Mining - Uses of Data Mining - Applications of Data Mining - Data Mining Vs Database - Steps in Data Mining Process - Major Issue in Data Mining - Data Mining Metrics. Advanced Database: Types of Data - Relational Database - Transaction database - Object Oriented Database - Text and Multimedia Database.

Case study on Concepts of Mining Data from Dataset.

Unit II Data Mining Functionalities and Architecture 09 h

Functionalities - Prediction-Clustering-Out layer Analysis - Evaluation and Deviation Analysis - Classification of Datamining Systems - Data Mining - Primitives -Architectures of Data mining Systems.

Case study on clustering a data.

Unit III Data Warehousing and Preprocessing 10 h

Introduction to Data Warehousing: Need for Data Warehousing - Need for separate Warehouse - Difference between Operational Database and Data warehouse - Difference between OTLP and Data warehouse - Benefits of Data warehouse - Limitation - Applications. Data Preprocessing: Need for Preprocessing - Data processing Techniques - Major Task in Data Preprocessing - Data Cleaning - Methods of Handling Missing Data - Data Integration - Data Transformation.

Case study on Data Preprocessing.

Unit IV Classification and Prediction 10 h

Classification and Prediction: Introduction - Issues - Decision Tree Induction - Bayesian Classification - Classification of Back Propagation. Classification based on Concepts from Association Rule Mining - Other Methods. Prediction - Introduction - Classifier Accuracy.

Case study on Classification and Prediction.

Unit V Data Interpretation and Visualization techniques 09 h

Data Interpretation - Importance - Types: Qualitative and Quantitative - Collection Methods - Visualization Techniques: Box Plots - Histograms - Heat Maps - Charts - Tree Maps.

Case study on Data Visualization.



Note: Case Studies related to the above topics to be discussed. Examined externally (Section D: Compulsory question)

Text Books

- 1 P.Rizwan Ahmed, 2013, "Data Mining", Margham publications.
- 2 JHan and M. Kamber, 2017, "Data Mining Concepts and Techniques", Harcourt India Pvt. Ltd - New Delhi.

References

- 1 Jiawei Han, Jian Pei, Hanghang Tong, 2022 "Data Mining Concepts and Techniques" Elsevier Publication.
- 2 Pang-Ning Tan, Michel Steinbach, Vipin Kumar, 2020, "Introduction to Data Mining" Eighth Edition, Pearson Publication.
- 3 Arun K.Pujaru, "Data Mining Techniques", Fourth Edition, 2019, Universities Press(India) Pvt Ltd.,
- 4 www.mygreatlearning.com/data-interpretation/



Course Code	Course Name	Category	L	T	P	Credit
235CM2A3DB	FINANCIAL DERIVATIVES	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the technical terminologies used in Derivatives trading
- the various derivative products
- about trading and clearance concept of derivatives product

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	explain the characteristics and participants in derivative market	K2
CO2	identify the forward and futures market trading mechanism	K2
CO3	assess the option trading strategies and pricing models	K3
CO4	examine the various types of Financial Swaps	K3
CO5	apply trading and clearance concept for margin settlement in derivatives	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		✓
CO2	✓	✓	✓	✓	✓
CO3			✓		✓
CO4	✓	✓		✓	
CO5	✓	✓	✓	✓	✓

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input checked="" type="checkbox"/>	Social Environment	Awareness/	<input type="checkbox"/> Constitutional Rights/ Human Values/ Ethics



235CM2A3DB	FINANCIAL DERIVATIVES	SEMESTER III
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Introduction to Derivatives 10 h

Derivatives: Introduction -Definition- Evolution of Derivatives in India-Structure of Derivatives markets-Need for Derivatives-Benefits of Derivatives-Types of Derivatives- Participants in Derivatives markets - Major Recommendations of Dr.L.C.Gupta Committee - Technical terminologies used in Derivatives trading- Derivatives Trading at NSE/BSE.

Case Study on Derivatives Trading at NSE/BSE

Unit II Forward and Futures Contracts 10 h

Forward-Definition-Features-Classification-Forward Trading Mechanism -Forward contract Vs Spot Contract-Futures Contract-Specifications - Margin Requirements-Types- Traders in Future Contract-Evolution of futures Market in India-Functions and Growth - Traders- Trading Mechanism - Hedging using Futures - Relationship between Future Prices, Forward Prices and Spot Prices.

Case Study on Trading Mechanism

Unit III Option Contracts 10 h

Options-Definition- Options Terminology- Types-Equity option Contracts in India-American and European Options - Option Trading Strategies-Option pay off-Intrinsic Value and Time value of options-Options Pricing models- Differences between Future and Option Contracts.

Case Study on Options Pricing models

Unit IV SWAPS 10 h

Swaps - Meaning - Nature - Evolution - Features - Types of Financial Swaps-Interest Rate Swaps - Currency Swap - Debt Equity Swap - Commodity Swap - Equity Index Swap- Valuation of Interest rate SWAPs and Currency SWAPs Bonds.

Case Study on Equity Index Swap

Unit V Trading and Clearance 08 h

Trading & Clearance: Trading system: Trader Workstation-Clearing entities - Open position calculation - Margin and settlement - Regulatory Framework - Risk Management - Accounting Issues.

Case Study Risk Management

Note:Case Studies related to the above topics to be discussed. Examined externally (Section D: Compulsory question for case studies)



Text Books

- 1 Gupta S.L, 2021, "Financial Derivatives: Theory, Concepts and Problems", Hardcover
- 2 Somanthan, 2017, "Derivatives", McGraw Hill Publishing Company Limited., Chennai.

References

- 1 N.R.Parasuraman, 2021 , "Derivatives and Risk Management", McGraw Hill Publishing Company Ltd.,
- 2 Khatri Dhanesh Kumar, 2016, "Derivatives and Risk Management", PHI Learning Pvt Ltd.,
- 3 Prafulla Kumar Swain, 2015, "Fundamentals of Financial Derivatives", Himalaya Publishing House.
- 4 Rajiv Srivastava, 2014, "Derivatives and Risk Management", Oxford University Press.



235CM2ASSA	RETAIL MARKETING	SEMESTER III
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Total Credits: 1

Syllabus

Unit I Introduction to Retailing

Introduction- Meaning of Retailing- Economic Significance of Retailing- Retailing Management Decision Process- Product Retailing vs. Service Retailing- Types of Retailers.

Unit II Retail Marketing Environment

Introduction- Understanding the Environment, Elements in a Retail Marketing Environment- Environmental Issues-Retailing Environment in India vs. Global Scenario.

Unit III Retail Marketing Strategies

Strategy at different levels of Business- Building a Sustainable Competitive Advantage- the Strategic Retail Planning Process- Retail Models- Retail "EST" model.

Unit IV Retail Marketing Segmentation

Introduction- Importance of Market- Segmentation in Retail- Targeted Marketing Efforts- Criteria for Effective Segmentation- Dimensions of Segmentation- Positioning Decisions- Limitations of Market Segmentation.

Unit V Retail Store Location and Layout

Introduction- Types of Retail Stores Location- Factors Affecting Retail Location Decisions- Country/Region Analysis- Trade Area Analysis- Site Evaluation- Site Selection- Location Based Retail Strategies.

Text Books

- 1 Fernie, "Principles of Retailing", Elsevier Publishing, 2010.
- 2 S.Praveenkumar, Dr.V. "Mahalakshmi,Retail Management" Rudhra Books, Chennai, 2008.

References

- 1 GiridharJoshi,"Information Technology for Retail", Oxford University Press, New Delhi 2009.
- 2 Chetan Bajaj, Tuli & Srivastava, "Retail Management", Oxford University Press, New Delhi.2010.
- 3 Ron Hasty and James Reardon, "Retail Management", McGraw- Hill Publication, International Edition.
- 4 Swapna Pradhan, "Retail Management and Cases", Tata McGraw-Hill Publishing Co, New Delhi, 2008.



235CM2ASSB	E -COMMERCE TECHNOLOGY	SEMESTER III
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Total Credits: 1

Syllabus

Unit I Introduction to Electronic Commerce -Evolution and Models

Introduction- Evolution of Electronic Commerce - Roadmap of E-Commerce in India- Functions and Scope of E - Commerce - Benefits and Challenges of E-Commerce - Business Models of E-Commerce - Characteristics of Business to Business(B2B) - Business to Consumers (B2C), Business to Government (B2G) - Need and Importance - alternative models of B2B E-Commerce - E-Commerce Sales Product Life Cycle (ESLC) Model

Unit II World Wide Web and E-enterprise

World Wide Web-Reasons for building own website - Benefits of Website, Registering a Domain Name - Role of web site in B2C E-commerce - EDI and paperless trading; Pros & Cons of EDI - Applications of E-commerce and E-enterprise - Applications to Customer Relationship Management- Types of E-CRM - Functional Components of E-CRM Concept Description - E-enterprise-Introduction - Comparison between Conventional and E-organisation - Organisation of Business in an E-enterprise, Benefits and Limitations of E-enterprise

Unit III E-marketing and Electronic Payment System

E-Marketing- Scope and Techniques of E-Marketing - Traditional web promotion; Web counters - Web advertisements - Role of Social media - E-Commerce Customer Strategies for Purchasing and support activities, Planning for Electronic Commerce and its initiatives - Electronic Payment System-Characteristics of E-payment system, SET Protocol for credit card payment - prepaid e-payment service - post-paid E-payment system - Types of payment systems - Operational, credit and legal risks of E-payment system - Risk management options for E-payment systems - Set standards principles for E-payment

Unit IV Security in E-commerce

Threats in Computer Systems: Virus - Cyber Crime Network Security: Encryption - Protecting Web server with a Firewall - Firewall and the Security Policy - Network Firewalls and Application Firewalls - Proxy Server.

Unit V Issues in E Commerce

Understanding Ethical, Social and Political issues in E-Commerce: A model for Organizing the issues - Basic Ethical Concepts - Analyzing Ethical Dilemmas - Candidate Ethical principles Privacy and Information Rights: Information collected at E-Commerce Websites - The Concept of Privacy - Legal protections Intellectual Property Rights: Types of Intellectual Property protection - Governance.



Text Books


- 1 Elias. M. Awad, 2017, " Electronic Commerce", Prentice-Hall of India Pvt Ltd.
- 2 RaviKalakota, Andrew B. Whinston, 2015, "Electronic Commerce-A Manager's guide", Addison-Wesley.

References

- 1 Kenneth C. Laudon, 2017, "E-Commerce: Business, Technology, Society", 4th Edition, Pearson Publications.
- 2 Bharat Bhasker, 2008, "Electronic Commerce - Frame work technologies and Applications", 3rd Edition- Tata McGrawHill Publications.
- 3 KamleshK.Bajaj and Debjani Nag, 2008 "E-Commerce- the cutting edge of Business", Tata McGrawHill Publications.
- 4 Elias M Award, 2002, "Electronic Commerce from Vision to Fulfilment", 3rd Edition, PHI Publications.



BoS Chairman/HoD
Department of Commerce (CA)
Dr. N. G. P. Arts and Science College
Coimbatore – 641 048

		
Dr.N.G.P. Arts and Science College		
APPROVED		
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06.04.24	17.04.24	



Dr.NGPASC

COIMBATORE | INDIA

Course Code	Course Name	Category	L	T	P	Credit
235CM2A4CA	ACCOUNTING FOR MANAGEMENT	CORE	5	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the Management Accounting techniques and its utilization.
- the conceptual framework of Management Accounting.
- the Marginal cost and Budgeting techniques.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the concepts of Management accounting and classifying the financial accounting, management accounting and cost accounting.	K2
CO2	Extend knowledge in Comparative Statement and Classification of ratios.	K2
CO3	Evaluate the changes in financial resources, helping managers allocate funds and plan for capital requirements or investments accordingly.	K5
CO4	Apply Marginal costing, Break Even Analysis and Standard Costing in pricing.	K3
CO5	Analyze the budgets over time based on past performance, allowing continuous improvement in financial planning and management	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		✓
CO2	✓	✓	✓		✓
CO3	✓		✓	✓	✓
CO4		✓		✓	
CO5				✓	

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input checked="" type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A4CA	ACCOUNTING FOR MANAGEMENT	SEMESTER IV
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Total Credits: 4

Total Instruction Hours: 60 h

Syllabus

Unit I Introduction to Management Accounting 10 h

Meaning-Definition - Characteristics - Scope-Objectives -Functions -Advantages - Limitations and Tools and Techniques of Management Accounting. Distinction between Financial Accounting and Management Accounting - Distinction between Management Accounting and Cost Accounting.

Case Study on functions of management Accountant.

Unit II Financial Statement Analysis and Ratio Analysis 12 h

Financial Statement Analysis - Comparative -Common Size - Trend analysis. Ratio Analysis: Meaning - Advantages - Limitations. Classification of Ratios-Liquidity Ratio- Solvency Ratio- Profitability Ratio-Turnover Ratio-Construction of Balance Sheet.

Case Study on Comparative and common size statement.

Unit III Working Capital and Cash Flow Analysis 14 h

Working Capital: Meaning-Concepts-Classifications-Importance-Factors Determining Working Capital Requirements-Computation of Working Capital Requirements. Cash Flow Statement: Meaning -Importance -Difference between Cash Flow and Fund Flow Analysis -Advantages -Limitations -Computations of Cash from operations - Cash Flow Statement.

Case Study on Preparation of working capital and cash flow statement

Unit IV Marginal Costing and Standard Costing 12 h

Marginal Costing: Introduction - Concepts- Marginal Costing and Break-Even Analysis - Managerial Applications of Marginal Costing - Significance and limitations of Marginal Costing. Standard Costing: Meaning-Features-Merits and Demerits- Steps - Analysis of Variances- Classifications of Variances.

Case Study on Marginal costing and standard Costing.

Unit V Budgeting and Budgetary Control 12 h

Budgeting and Budgetary Control - Definition -Nature- Essentials -Merits-Demerits Classification of Budgets - Preparation of Production Budget- Material Purchase and Sales Budget - Flexible Budget-Cash Budget-Master Budget-Zero Base Budget.



Case Study on preparation of budgets and budgetary control

Note: Case Studies related to the above topics to be discussed Examinated externally (Section D: Compulsory question for case studies)

Text Books

- 1 Sharma R.K. and Shashi.K. Gupta, 2021 "Management Accounting", Kalyani Publishers, New Delhi.
- 2 S.P. Jain and K.L. Narang, 2019. "Cost and Management Accounting", Kalyani Publishers, New Delhi.

References

- 1 Dr. S.N. Maheswari. 2021, "Management Accounting", Sultan Chand & Sons, New Delhi.
- 2 Reddy T.S and Reddy H.P, 2013, "Management Accounting", Margham Publications,
- 3 M Y Khan, P. K Jain, 2017, "Management Accounting" 7th Edition, Published: August 14, 2017.,
- 4 Ramachandran & Srinivasan. R. 2019. Management Accounting, Sri ram Publications, Trichy



Course Code	Course Name	Category	L	T	P	Credit
235CM2A4CB	JAVA PROGRAMMING	CORE	3	-	-	2

PREAMBLE

This course has been designed for students to learn and understand

- the object-oriented programming concepts.
- the multithreaded programming and exception handling.
- the I/O operations and applets.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand Java's widespread use in enterprise, web, and mobile applications.	K2
CO2	Demonstrate the ability to perform calculations, make decisions, and iterate over data.	K3
CO3	Construct structured, modular, and reusable code.	K3
CO4	Analyze errors efficiently in Java applications.	K4
CO5	Evaluate to handle file management and data stream processing	K5

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		✓
CO2			✓		
CO3	✓	✓		✓	
CO4		✓			
CO5			✓		✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A4CB	JAVA PROGRAMMING	SEMESTER IV
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Total Credits: 2

Total Instruction Hours: 36 h

Syllabus

Unit I Java Features and Structure 8 h

Introduction - Object oriented paradigm-Basic concepts of OOP - Features of Java - Java Environment. Lexical Issues or tokens- Data Types - Variables - Arrays -Creating an array- One dimensional array - Strings. General Structure of a Java Program. Case Study on general structure of a Java Program.

Unit II Operators and Control Statements 8 h

Operators: Arithmetic Operators, Relational, Logical Operators, Assignment Operators, Increment and Decrement Operators, Conditional Operators, Bitwise, Special Operators-Arithmetic Expressions-Operator Precedence. Control Statements: Selection Statement. Iteration Statement: While Loop, Do...While Loop, For Loop. Jump Statements: Break-Continue. Case Study on control statements.

Unit III Classes, Interfaces and Packages 6 h

Defining a Class- Fields Declaration- Methods Declaration- Creating Objects - Accessing Class members. Defining Interfaces- Extending Interfaces -Implementing Interfaces. Packages-Java API Packages- Creating Packages- Accessing a Package. Case Study on Java API Packages.

Unit IV Multithreaded and Exception Handling 7 h

Multithreaded Programming: Creating Threads-Extending thread classes-Stopping and blocking a thread-Life cycle of a thread. Types of Errors: Exceptions-try-catch - throw statements. Case Study on multithreaded Programming.

Unit V I/O in Java and Java Applets 7 h

I/O Basics-Streams- Stream Classes-Predefined Streams- Reading from and writing to console- Reading and Writing Files -Data Streams. Applet Fundamentals: Life cycle of an Applet- Steps to Build an Applet- Passing parameters to Applets - Working with Graphics. Case Study on Java Applets.



Note: Case Studies related to the above topics to be discussed. Examined externally (Section D: Compulsory question for case studies)

Text Books

- 1 Balagurusamy E, 2022, "Programming with Java - A primer", Tata McGraw-Hill Publishing Company Ltd., New Delhi.
- 2 Herbert Schildt, 2019, "JAVA the Complete Reference", Tata Mcgraw-Hill Publishing Company Ltd., New Delhi

References

- 1 Rohit Khurana, 2014,"Programming with Java", Vikas Publishing House Pvt Ltd., New Delhi.
- 2 Patrick Naughton and Herbert Schildt, 2000, "The Complete Reference Java2", Tata Mcgraw - Hill Publishing Company Ltd., New Delhi.
- 3 Herbert Schildt, 2014, " JAVA A Beginners Guide", Tata Mcgraw Hill Publishing Company Ltd New Delhi.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A4CC	SETTING UP OF BUSINESS ENTITIES	CORE	4	-	-	3

PREAMBLE

This course has been designed for students to learn and understand

- the procedures in startups.
- the registration and licensing procedure.
- the compliance of regulatory framework.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand ecosystem and financing options for startups.	K2
CO2	Demonstrate the formation and registration process of Section 8 companies, focusing on legal, regulatory, and compliance aspects.	K2
CO3	Identify the advantages of combining limited liability with collaboration in business, such as reduced risk and increased innovation.	K3
CO4	Apply the procedures for obtaining registration and license.	K3
CO5	Analyze the Processes for Converting Business Entities and Exploring Options for Business Closure.	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		✓
CO2		✓		✓	
CO3	✓		✓		✓
CO4		✓	✓		
CO5	✓	✓		✓	

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input checked="" type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A4CC	SETTING UP OF BUSINESS ENTITIES	SEMESTER IV
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Total Credits: 3
Total Instruction Hours: 48 h

Syllabus

- Unit I** Startups in India 10 h
 Definition of Startup - Evolution- Startup landscape in India - Startup India policy - Funding support and incentives - Indian states with Startup policies - Exemptions for startups - Life cycle of a Startup - Salient features of Startups -Types of business entities - Factors governing selection of companies -Financing options available for Startups - Equity financing - Debt financing - IPO -Crowd funding - Angel Financing-Incubators - Mudra banks - Successful Startups in India.
 Case Study on Successful Startups in India.
- Unit II** Not-for-Profit Organizations 9 h
 Formation and registration of NGOs - Section 8 Company - Definition - Features - Exemptions - Requirements of Section 8 Company - Application for incorporation - Trust: Objectives - Persons who can create a trust - Differences between a public and private trust - Exemptions available to trusts - Formation of a trust - Trust deed. Society Formation: Advantages - Disadvantages - Formation of a society - Difference between Section 8 Company, Trust and Society- Tax exemption to NGOs. Case Study on, Tax exemption to NGOs.
- Unit III** Limited Liability Partnership and Business Collaboration 9 h
 Limited Liability Partnership: Definition - Nature and characteristics - Advantages and Disadvantages - Procedure for incorporation - LLP agreement - Annual compliances of LLP. Business Collaboration: Definition - Types. Joint venture: Advantages and Disadvantages - Types - Joint venture agreement - Successful joint ventures in India.
 Case Study on Successful joint ventures in India.
- Unit IV** Registration and Licenses 10 h
 Introduction - Business entity registration - Mandatory registration - PAN - Significance - Application and registration of PAN - Linking of PAN with Aadhar - TAN - Persons liable to apply for TAN - Relevance of TAN -Application Procedure. GST: Registration Procedure - Registration under Shops and Establishment Act - MSME registration - Clearance from Pollution Control Board - FSSAI registration and license - Trade mark, Patent and Design registration.
 Case Study on Trade mark, Patent and Design registration.



Unit V Conversion of Business Entities and Closure of Business 10 h

Conversion of Business: Private Company into a Public Company - Public Company into Private Limited -Section 8 company into any other kind (Procedural aspects)-LLP into Company - One Person Company to Private Company - Unlimited Liability Company into a Limited Liability Company. Closure of Business: Dormant Company - Reason - Benefits and Exemptions - Compliance.
Case Study on Dormant Company.

Note: Case Studies related to the above topics to be discussed. Examined externally (Section D: Compulsory question for case studies).

Text Books

- 1 Zad N.S and Divya Bajpai, (2022) “Setting up of Business Entities and Closure” (SUBEC), Taxmann, Chennai.
- 2 Amit Vohra & Rachit Dhingra (2022) “Setting Up of Business Entities & Closure”, 6 th Edition, Bharath Law House, New Delhi.

References

- 1 Setting up of Business Entities and Closure (2021), Module 1, Paper 3, The Institute of Company Secretaries of India, MP Printers, Noida.
- 2 Avtar Singh, (2015), “Intellectual Property Law”, Eastern Book Company, Bangalore.
- 3 Daniel Sitarz, (2011) “Sole Proprietorship: Small Business Start-up Kit”, 3 rd Edition, Nova Publishing, USA.
- 4 Kailash Thakur, (2007) “Environment Protection Law and Policy in India”, 2 nd Edition, Deep & Deep Publication Pvt. Ltd., New Delhi.



235CM2A4CP	JAVA PROGRAMMING	SEMESTER IV
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Total Credits: 2
Total Instructions Hours: 48 h

S.No.	Contents
1	Write a Java program to store company names and their quoted prices, and identify the company with the lowest quote.
2	Write a Java program to demonstrate various arithmetic operations.
3	Develop Java program to handle Bank Account Operations.
4	Implement a Java program to calculate Depreciation.
5	Create a Java program to reverse a given string.
6	Develop a Java program to prepare the mark list using Inheritance.
7	Create a Java program to demonstrate the concept of Multi-Threading.
8	Write a Java program to convert a list of strings to uppercase or lowercase using streams.
9	Write a Java program that throws an exception and catch it using a try-catch block.
10	Develop a Java applet that displays time in an Applet window.
11	Create a Java applet to create a simple spread sheet.
12	Develop a Java applet that receives an integer in one text field, and computes its factorial Value and returns it in another text field, when the button named "Compute" is clicked.



Course Code	Course Name	Category	L	T	P	Credit
235CO2A4DA	INTERNATIONAL MARKETING	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the concept of global marketing.
- about the international marketing policy.
- recent international promotion policy.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Utilize the concept and growth of International Marketing.	K3
CO2	analyze the global pricing strategies.	K3
CO3	classify various distribution channel.	K3
CO4	Interpret the international promotion policy.	K3
CO5	Examine the export documentation and procedures.	K4

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓		✓	✓
CO2	✓		✓		✓
CO3		✓	✓		
CO4	✓	✓		✓	✓
CO5	✓	✓	✓	✓	✓

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CO2A4DA	INTERNATIONAL MARKETING	SEMESTER IV
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Introduction 8 h

Concept of global marketing –Meaning - objective - Importance - Growth and Benefits – Scope and Challenge of international marketing – Dynamic environment of international marketing - International segmentation - Targeting and Positioning. Case study on international segmentation.

Unit II International Product and Pricing Policy 12 h

Global Product – Product standardization and Adoption – Global Brands - Trademarks - Packaging and Labeling – International marketing of services – Global pricing - Export pricing - Pricing strategies for international markets. Case study on pricing strategies for international markets.

Unit III International Marketing Channel Policy 8 h

Managing international distribution channels – Multinational retailers and Wholesalers – Global Logistics – Contemporary issues in International marketing – Future prospects in International marketing. Case study on distribution channel policy.

Unit IV International Promotional Policy 8 h

International Promotion – Concept - Strategies - International advertising - International Sales Promotion - Sales force management – Forms of promotion for global markets. Case study on international sales promotion.

Unit V International Institutional Infrastructure and Documentation 12 h

Institutional infrastructure for export in India - Export Assistance - Export documentation and procedures - framework - pre-shipment and post shipment documents. Case study on export documentation procedures.



Note: Case Studies related to the above Topics to be discussed Examined Externally.

(Section D : Compulsory question for Case Studies)

Text Books

- 1 Varshney & Bhattacharya, 2020, International marketing management, 13th Edition, Sultan Chand & Sons, New Delhi.
- 2 P.K. Vasudeva, 2019, 'International Marketing' Excel books, New Delhi.

References

- 1 Philip R. Cateora, 2019, John Graham, 'International Marketing', Irvine - Sage Publications.
- 2 R. Srinivasan, 2018, 'International Marketing' Prentice Hall India.
- 3 Dana - Nicoleta, Laseu, 2017, 'International Marketing', Biztantra,
- 4 Michal R. Czinkota, Illkka A. Ronkainen, 2016,' Best Practices in International Marketing', Harcourt college Publishers.



Course Code	Course Name	Category	L	T	P	Credit
235CM2A4DA	BIG DATA ANALYTICS	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the ability to innovate, solve complex problems and contribute to data-driven solutions in any sector.
- the critical thinking and data-driven decision-making abilities.
- the different types of tools and technologies helps to process, analyze and derive meaning from large-scale data.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the fundamental concepts of Big Data and the importance of modern analytics environments.	K2
CO2	Interpret the different types of Hadoop functions as a distributed system for big data processing.	K3
CO3	Demonstrate the different types of tasks like executing operations, using methods and solving problems using MongoDB and Cassandra.	K3
CO4	Analyze the functionality of Hive and Pig to solve real-world data processing problems.	K4
CO5	Apply JasperReport and Machine Learning applications to address real-world business and data science challenges.	K3

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓	✓		
CO2		✓		✓	✓
CO3	✓				
CO4		✓		✓	✓
CO5	✓		✓		✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A4DA	BIG DATA ANALYTICS	SEMESTER IV
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

- Unit I** Introduction of Digital and Big Data 8 h
 Definition of Digital Data-Classification of Digital Data-Definition of Big Data-
 Characteristics of Data- Evolution of Big Data-Challenges with Big Data. Big Data:
 Volume, Velocity, Variety-Traditional Business Intelligence (BI) versus Big Data-Top
 Challenges Facing Big Data-Importance of Big Data Analytics-Terminologies Used
 in Big Data Environments.
 Case Study on Big Data Environments.
- Unit II** The Big Data Technology Landscape 10 h
 NoSQL-Hadoop: Features of Hadoop-Key Advantages of Hadoop-Versions of
 Hadoop-Overview of Hadoop Ecosystems-Hadoop Distributors-Hadoop versus
 SQL-Hadoop Overview-Hadoop Distributed File System-Processing Data with
 Hadoop-Interacting with Hadoop Ecosystem.
 Case Study on Hadoop Ecosystem.
- Unit III** MongoDB and Cassandra 10 h
 Definition of MongoDB-Terms Used in RDBMS and MongoDB-Data Types in
 MongoDB-MongoDB Query Language: Insert Method, Save () Method. Cassandra:
 Definition-Features of Cassandra-CQL Data Types-CRUD Operations-Collections-
 Using a Counter-Time to Live (TTL)-Alter Commands-Import and Export.
 Case Study on Apache Cassandra.
- Unit IV** Hive and Pig 10 h
 History of Hive and Recent Releases of Hive-Hive Features-Hive Data Units-Hive
 Architecture-Hive Data Types-Hive File format-Hive Query Language(HQL)-User-
 Defined Function(UDF).Pig: Key Features of Pig-Pig on Hadoop-Pig Latin
 Overview-Data Types in Pig-Execution Modes of Pig-HDFS Commands-Relational
 Operators-Eval Function-Complex Data types-Piggy Bank-User -Defined Functions-
 Pig versus Hive.
 Case Study on Piggy Bank.
- Unit V** Jasper Report and Machine Learning 10 h
 Definition of JasperReports-Jaspersoft Studio. Machine Learning: Definition-
 Machine Learning Algorithms: Regression Model-Clustering-Collaborative
 Filtering-Association rule Mining-Decision Tree.
 Case Study on Machine Learning.



Note: Case Studies related to the above topics to be discussed. Examined externally (Section D: Compulsory question for case studies)

Text Books

- 1 Seema Acharya, Subhashini Chellappan, 2021, "Big Data and Analytics", Wiley India Pvt. Ltd.
- 2 Thomas Erl, Wajid Khattak and Paul Buhler ,2016," Big Data Fundamentals Concepts, Drivers and Techniques", Pearson Pvt Ltd.

References

- 1 Sourabh Mukherjee, Amit Kumar Das. Sayan Goswami, 2019, "Big Data Simplified", Pearson Education Publication, New Delhi
- 2 Judith Hurwitz, Aln Nugent and Dr.Fern Halper, Marcia Kaufman, 2019, "Big Data for Dummies",Wiley India Pvt. Ltd
- 3 Peter Guerra and Kirk Borne, 2016, "Ten Signs of Data Science Maturity", O'Reily Media Pvt Ltd, USA
- 4 Raj Kamal, Preeti Saxena, 2019, "Big Data Analytics Introduction to Hadoop, Spark, and Machine-Learning", McGraw Hill Education (India) Pvt.Ltd



Course Code	Course Name	Category	L	T	P	Credit
235CM2A4DB	FINTECH SERVICES	DSE	4	-	-	4

PREAMBLE

This course has been designed for students to learn and understand

- the basics of FinTech and it's evolution.
- the innovative Fintech Products.
- the Machine Learning Models and Algorithms in FinTech.

COURSE OUTCOMES

On the successful completion of the course, students will be able to

CO Number	CO Statement	Knowledge Level
CO1	Understand the concept and evolution of FinTech, with a focus on global trends, recent developments, and India's unique FinTech landscape.	K2
CO2	Apply the concepts of accounting practices, decentralized ledger principles in block chain.	K3
CO3	Interpret the emerging concept of Crypto Currency Mechanism, enhancing the problem-solving and analytical skills.	K2
CO4	Analyze the data for decision-making in the modern business world	K4
CO5	Evaluate the practical skills in building and training models using Machine Learning.	K5

MAPPING WITH PROGRAMME OUTCOMES

COs/POs	PO1	PO2	PO3	PO4	PO5
CO1	✓	✓		✓	✓
CO2	✓	✓			
CO3	✓			✓	✓
CO4		✓	✓	✓	
CO5	✓		✓	✓	✓

COURSE FOCUSES ON

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics



235CM2A4DB	FINTECH SERVICES	SEMESTER IV
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Total Credits: 4

Total Instruction Hours: 48 h

Syllabus

Unit I Introduction to FinTech 10 h

Concept and Evolution- Global Trends and Recent Developments - India FinTech insights- FinTech Adoption and Economics Forces- Opportunities and Challenges- Various financial Models and Classification- Fin Tech for Startups, Investors and Consumers - Fin Tech and Financial Services Transformation- Fin Tech Domains. Case Study on Collaboration of Financial Institutions and Startups.

Unit II Block Chain 09 h

History of Ledger and Accounting practices, Decentralized Ledger concepts and Business rules: Basics of block chain technology: Block chain Technology Stack- Blocks-Mining-Consensus-Distributed Databases-Ethereum Smart Con Contracts-Security.

Case Study on Block chain Financial Products.

Unit III Crypto Currency 10 h

Crypto Currency: Evolution of Crypto currencies-A brief on ICO's-Block chain Frameworks Block chain Implementation: Block chain as a Financial System-Block chain for Provenance Tracking-Block chain for Interorganizational Record and Asset-keeping-Block chain for Multi-party Aggregation.

Case Study on Crypto currencies.

Unit IV Analytics 10 h

Data Analytics-Introduction- Role of Analytics in the Modern World-Types of Analytics: Descriptive, Diagnostic, Predictive and Prescriptive-Data Analytics and Ethical Issues, Basics of Statistical Analysis: Descriptive and Inferential Statistics-Mean, Median, Mode, Standard Deviation, Covariance and Correlation. Basics of Python for Data Analysis: Installation of Anaconda-Data Types and Functions-Data Manipulation and Preparation, Data Visualization in Python and Sentiment Analysis.

Case Study on Data Analytics in Finance.

Unit V Introduction to Machine Learning in FinTech 09 h

Machine Learning- Introduction - Evolution - Trends-Application-Best Practices-Machine Learning in future-Machine Learning Algorithms: Classification-Regression-Forecasting-Clustering, Neural Networks: Perception Learning-Back propagation Learning-Object Recognition, Deep Learning - Keras:-Setting up



KERAS-Creating a Neural Network-Training Models and Monitoring-Artificial Neural Networks.

Case Study on Machine Learning in FinTech.

Note: Case Studies related to the above topics to be discussed Examinated externally (Section D: Compulsory question for case studies)

Text Books

- 1 Sanjay Phadke , 2020, "Fintech Future : The Digital DNA of Finance", SAGE Publications.
- 2 Parag Y Arjunwadkar , 2018,FinTech: The Technology Driving Disruption in the Financial Services Industry", Auerbach Publications.

References

- 1 Susanne Chishti and Janos Barberis, 2016, "The FINTECH Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries", Wiley Publications.
- 2 Theo Lynn, John G. Mooney, Pierangelo Rosati, Mark Cummins, 2018, "Disrupting Finance: FinTech and Strategy in the 21st Century", Palgrave Macmillan.
- 3 Abdul Rafay, 2019, "FinTech as a Disruptive Technology for Financial Institutions", IGI Global.
- 4 Bernardo Nicoletti, 2017, "The Future of FinTech: Integrating Finance and Technology in Financial Services", Palgrave Macmillan.

