Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav School of Management

Choice Based Credit System (CBCS) in Light of NEP-2020
BBA (Fintech) - V SEMESTER (2022-2026)

BBA501 BASICS OF OPERATIONS MANAGEMENT

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BBA501	MAJ	Basics of Operations Management	60	20	20	-	-	3	-	-	3

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **MAJ**-Minor
*__Teacher Assessment__ shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

COURSE OBJECTIVE

This course is aimed at introducing students to the basic concepts, theories and practices of production and operations functions. It focuses on the problems that frequently confront production/operations managers.

EXAMINATION SCHEME

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections, A and B. Section A will carry 36 Marks and consist of 5 questions, out of which students will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

COURSE OUTCOMES

CO1 Comprehend the elements of operations management and various transformation processes to enhance productivity and competitiveness.

CO2 Develop the understanding for Facilities Location and the factors that affect the selection of facilities location.

CO3 Analyze the facilities requirement and accordingly design Layouts.

CO4 Define and examine the materials management function starting from demand management through Inventory Management.

CO5 Apply various Statistical Quality Control tools including the analysis of various Quality costs, and quality circles.

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COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BBA501	MAJ	Basics of Operations Management	60	20	20	-	-	3	-	-	3

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **MAJ-** Minor
***Teacher Assessment** shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

COURSE CONTENT

UNIT I: Introduction
1. Nature and Scope of Production/Operations Management,
2. POM Relationship with other Systems in the Organisation
3. Factors that affect System and Concept of Production and Operation Management.
4. Different types of Production/Operation Systems, Role, and Responsibilities of Production/Operations Manager.
5. Basic differences between Manufacturing and Service operations.

UNIT II: Facilities Location
1. Importance of location decision and needs for it.
2. Factors affecting plant location decision.
3. Basic location decision models – Break-Even Method, Factor Rating Method
4. Weighted Factor Rating Method, Load Distance Method
5. Centre of Gravity Model

UNIT III: Facilities Layout
1. Concept of Plant Layout
2. Objectives of Plant Layout
3. Principles of Plant Layout
4. Basic classification of Layouts – Process Layout, Product Layout, Layout by Fixed Position
5. Group Layout/ Cellular Manufacturing

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
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BBA501	MAJ	Basics of Operations Management	60	20	20	-	-	3	-	-	3

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **MAJ**- Minor
***Teacher Assessment** shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

UNIT IV: Material and Inventory Management

1. An overview of Material Management, Material Planning, and Inventory Control,
2. Concept and fundamentals of Material requirement planning (MRP)
3. Inventory Models(Classical EOQ, Model with Shortages), JIT,
4. Budgeting and Material Planning, Purchase Management,
5. Store Management, Safety Management, Case Study.

UNIT V: Quality in Prod. & Ops Management

1. Definition, History of Quality, Quality Management
2. Concepts of Quality Assurance, Acceptance Sampling
3. Statistical Process Control
4. Control Charts: Control Limits, Central Tendency and Dispersion, $\bar{X}$chart and r-chart.
5. Total Quality Management, QMS and ISO Standards, Case Study.

SUGGESTED READINGS

1. Chary, S.N., (2012). ***Production and Operations Management.*** McGraw Hills Education Pvt. Ltd.,5th edition.
2. Kumar, S. and Suresh, N. (2009). ***Operations Management.*** New Age International Publishers.
3. Ashwathappa, K (2007). ***Production and Operation Management.*** Himalaya Publishing House.
4. Paneerselvam, R. (2013). ***Production and Operations Management.*** PHI Learning Private limited.

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BBAFIN502 BASICS OF DATA BASE MANAGEMENT SYSTEM

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BBAFIN502	MAJ	Basics of Data Base Management System	60	20	20	-	-	3	-	-	3

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **MAJ –** Major
***Teacher Assessment** shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

COURSE OBJECTIVES

1. To understand the creation, storage and retrieving of data from database.
2. To learn the physical and logical database design, database modelling, relational, hierarchical, and network models
3. To understand and develop data manipulation language to query, modernize, and manage a Database

EXAMINATION SCHEME

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections, A and B. Section A will carry 36 Marks and consist of 5 questions, out of which student will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

COURSE OUTCOMES

CO1 Evaluate business information problems and find the requirements of a problem in terms of Data.
CO2 Understand the uses the database schema and need for normalization.
CO3 Design the database schema with the use of appropriate data types for storage of data in Database.
CO4 Use different types of physical implementation of Database
CO5 Use database for concurrent use.
CO6 Backup data from database.

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COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BBAFIN502	MAJ	Basics of Data Base Management System	60	20	20	-	-	3	-	-	3

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **MAJ –** Major
***Teacher Assessment** shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

COURSE CONTENT

UNITI: Introduction:

1. Data and Information,
2. Database, Objectives,
3. Evolution, Classification, Approach, advantages, data model and Architecture.
4. Relational databases, Abstraction, DBMS Structure, DBMS Queries
5. ERDiagrams, Constraints, Class Hierarchies, Aggregation

UNITII: ER model

1. Basic concepts, design issues
2. Mapping constraint, keys,
3. ER diagram, weak and strong entity sets
4. Specialization and generalization, aggregation, inheritance,
5. Design of ER schema, from ER schema to tables.

UNIT III: Structured Query Language (SQL)

1. Introduction to SQL,
2. Data definition commands, data manipulation commands,
3. SELECT queries
4. Advanced data definition commands advanced SELECT queries
5. Nested queries, Integrity constraints.

UNIT IV: Query Optimization

1. Query processing,
2. Query Optimization,
3. ACID properties,
4. Transaction Processing and Concurrency Control
5. Database Recovery

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
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			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BBAFIN502	MAJ	Basics of Data Base Management System	60	20	20	-	-	3	-	-	3

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **MAJ –** Major
***Teacher Assessment** shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

UNITV: Recent Challenges in DBMS

1. Introduction
2. Basic idea of Genome
3. Building Block of DNA
4. Mobile Database
5. XML

SUGGESTED READINGS

1. Sumathi, S., Esakkirajan, S.,***Fundamental of relational database Management systems***, Physica-Verlag.
2. Silberschatz, A., KorthH.F., Sudersan, ***Database System Concepts.*** MGH Publication.
3. Elmasri & Navathe. ***Fundamentals of Database Systems***. Morgan Kauffman
4. Desai.B.C., An Introduction To Database Systems. BPB
5. Krishnan R., Database Systems. TMH

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BBAFIN503 FUNDAMENTALS OF CRYPTO AND BLOCKCHAIN

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BBAFIN503	DSE	Fundamentals of Crypto and Blockchain	60	20	20	-	-	4	-	-	4

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **DSE-** Discipline Specific Elective

*__Teacher Assessment__ shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

COURSE OBJECTIVE

Provide conceptual understanding of how block chain technology can be used to innovate and improve business processes. Covers the technological underpinning of block Chain operations in both theoretical and practical implementation of solutions using block Chain technology.

EXAMINATION SCHEME

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections, A and B. Section A will carry 36 Marks and consist of 5 questions, out of which students will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

COURSE OUTCOMES

CO1 Familiarizing the concepts of Block chain Technology
CO2 Develop blockchain based solutions.
CO3 Developing knowledge of block chain application for on premise and cloud-based architecture.

COURSE CONTENT

UNIT I: Introduction of Blockchain

1. Overview of Blockchain, Public Ledgers, Bitcoin, Smart Contracts.
2. Blocks in a Blockchain, Transactions, Distributed Consensus, Public vsPrivate Block Chain.
3. Understanding Cryptocurrency to Blockchain, Permissioned model of Blockchain.
4. Overview of Security aspects of Block chain. Basic cryptocurrency.

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
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BBAFIN503	DSE	Fundamentals of Crypto and Blockchain	60	20	20	-	-	4	-	-	4

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **DSE-** Discipline Specific Elective
*__Teacher Assessment__ shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

UNIT II: Understanding the Blockchain with Cryptocurrency

1. Bitcoin and Blockchain: Creation of Coins.
2. Payments and Double spending, Bitcoin Scripts, Bitcoin P2P network, Transaction in Bitcoin Network, Block Mining.
3. Working with consensus in Bitcoin, Proof of work basic introduction.
4. HashcashPoW, Bitcoin PoW, Attacks on PoW.

UNIT III: Understanding Block Chain for Enterprise

1. Permissioned Blockchain.
2. Permissioned model and use cases.
3. Design Issue for Permissioned Blockchain.
4. Execute Contracts, State Machine Replication.

UNIT IV: Enterprise Application of Block chain

1. Cross Border payments, Know your Customer(KYC).
2. Food Security, Mortgage over Blockchain.
3. Block chain enabled trade, Trade Finance Network.
4. Supply Chain Financing, Identity on Block chain.

UNIT V: Block chain application development

1. Hyperledger Fabric-Architecture Identities and Policies.
2. Membership and Access control, Channels, Transaction Validation.
3. Writing smart contracts using Hyperledger Fabric and Ethereum.
4. Overview of Ripple and Corda

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BBAFIN503	DSE	Fundamentals of Crypto and Blockchain	60	20	20	-	-	4	-	-	4

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **DSE-** Discipline Specific Elective

*__Teacher Assessment__ shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

SUGGESTED READINGS

1. Swan,M., (2015). ***Block Chain: Blueprint for a New Economy***. O'Reilly.
2. Thompsons,Josh., (2017).***Block Chain: The Block Chain for Beginners- Guide to Block chain Technology and Leveraging Block Chain Programming.***CreateSpace Independent Pub.
3. Drescher,D., (2017).***Block Chain Basics (1st ed.).***Apress Publisher.
4. Kaushik,A., (2020). ***Block Chain and Crypto Currencies***. Khanna Publishing House, Delhi.
5. Bashir, I., (2020). ***Mastering Block Chain: Distributed Ledger Technology, Decentralization and Smart Contracts Explained(2nd ed.).*** Packt Publishing.

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Choice Based Credit System (CBCS) in Light of NEP-2020
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BBAFIN504 FUNDAMENTALS OF REGTECH

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		L	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BBAFIN504	DSE	Fundamentals of RegTech	60	20	20	-	-	4	-	-	4

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **DSE-** Discipline Specific Elective

*__Teacher Assessment__ shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

COURSE OBJECTIVE

This subject aims to increase students' awareness and understanding of Regulatory Technology and its applications in Finance area. Role of Supervisory technology (suptech) and use of innovative technology by supervisory agencies. Functions of Sandbox.

EXAMINATION SCHEME

The internal assessment of the students' performance will be done out of 40 Marks. The semester Examination will be worth 60 Marks. The question paper and semester exam will consist of two sections, A and B. Section A will carry 36 Marks and consist of 5 questions, out of which students will be required to attempt any three questions. Section B will comprise of one or more cases / problems worth 24 marks.

COURSE OUTCOMES

CO1 Students will get to know the RegTech norms, historical background, requirement of RegTech.
CO2 Students will understand the application of RegTech Ecosystem.
CO3 The areas where future scope of RegTech.
CO4 Analyse the performance of RegTech in implemented areas.
CO5 Evaluate the performance and further scope of improvement.

COURSE CONTENT

UNIT I: Introduction to RegTech

1. Meaning and Characteristics
2. Evolution of RegTech, Technologies driving RegTech
3. Scope of RegTech
4. Applications of RegTech
5. Benefits and challenges of adopting RegTech solutions

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BBAFIN504	DSE	Fundamentals of RegTech	60	20	20	-	-	4	-	-	4

Legends: **L** - Lecture; **T** - Tutorial/Teacher Guided Student Activity; **P** – Practical: **C** - Credit; **DSE-** Discipline Specific Elective

*__Teacher Assessment__ shall be based on following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks

UNIT II: Regulatory and Legal Issues around RegTech

1. Global trends and government initiatives in RegTech
2. Regulation vs privacy
3. New compliances and new monitoring processes
4. Compliance and regulatory risk
5. Regulatory Sandboxes.

UNIT III: RegTech Ecosystem& Risk Management

1. Financial Institutions, Startups
2. Startups Challenges
3. Potential cyberattacks and suspicious activities by using RegTech
4. Multitude of behavioural information, Behavioural biometric techniques
5. Activity logs, Robotic Process Automation (RPA).

UNIT IV:Regulatory Reporting and Stress Testing

1. Benefits of leveraging Regtech solutions for regulatory reporting and stress testing
2. Key considerations when adopting Regtech solution for regulatory reporting and stress testing
3. Key implementation components for regulatory reporting and stress testing.

UNIT V: SupTech

1. Meaning, Scope of SupTech
2. Proof-of-concepts (PoCs)
3. PoC on the use of Robotic Process Automation (RPA) and Speech-To-Text (STT)
4. Network analysis and sentiment analysis.

SUGGESTED READINGS

1. Fintech &Regtech - Your Definitive Guide on The Convergence of Finance, Technology and Regulation- Vivek Sethi
2. FinTech and RegTech in a Nutshell, and the Future in a Sandbox- Douglas W. Arner ,Jànos Barberis and Russ P. Buckley.