

**SKILL ENHANCEMENT COURSES**  
**2021-22**

<b>Sl. No.</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Teaching Hour Per Week</b>	<b>ESE</b>	<b>CIA</b>	<b>Total Marks</b>	<b>Credits</b>
1	C4 21 SB 101	Digital Fluency	1+ 0+2	30	20	50	2
2	C4 21 SB ***	Introduction to Business Intelligence and Power BI	1+ 0+2	30	20	50	2
3	C4 21 SB ***	Technology and Analytics in Accounting Decisions	1+ 0+2	30	20	50	2
4	C4 21 SB ***	Cognitive Skills and Flexibility	1+ 0+2	30	20	50	2

## **C4 21 SB 101: DIGITAL FLUENCY**

### **COURSE OBJECTIVES:**

The students will be able to:

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

### **Module 1: Emerging Technologies**

**5 Hrs**

Artificial Intelligence- Machine Learning- Deep Learning- Database Management for Data Science- Big Data Analytics- Internet of Things (IoT) and Industrial Internet of Things (IIoT)- Cloud computing and its service models- Cyber Security and Types of cyber attack

### **Module 2: Applications of Emerging Technologies**

**5 Hrs**

Artificial Intelligence- Big Data Analytics- Internet of Things- Cloud Computing- Cyber Security

### **Module 3: Building Essential Skills beyond Technology**

**5 Hrs**

Importance of Effective Communication Skills, Creative Problem Solving & Critical Thinking, Collaboration and Teamwork Skills, Innovation & Design Thinking, Use of tools in enhancing skills

### **COURSE OUTCOMES:**

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

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

## **BOOK FOR REFERENCE:**

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

# **Introduction to Business Intelligence and Power BI**

## **COURSE OBJECTIVES:**

The students will be able to

1. Illustrate the role of business Intelligence and Power BI in the field of Business Analytics in the capacity of Data Analyst and Data Engineer
2. Prepare for Data Visualisation in BI by using Power BI, Menu tab, Various tools in Power BI
3. Develop reports in Power BI by using Visuals, Interactive Dashboards and Data Stories, Graphs and Chart

### **Module 1: Introduction**

**5 Hrs**

Introduction to business Intelligence, BI Roles and Processes, Data Analyst, Data Engineer, Data Storage, Data warehouse, Introduction to Power Query, Power Pivot, SQL

### **Module 2: Data Visualisation in BI**

**5 Hrs**

Data visualisation, Introduction to Power BI, Menu tab, Various tools in Power BI

### **Module 3 - Communicating with Data**

**5 Hrs**

Visuals, Interactive Dashboards and Data Stories, Graphs and Chart types, Good vs Bad visuals, Design Principles, Visual Inspiration, Creating reports in Power BI

## **COURSE OUTCOMES:**

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

1. Illustrate the role of business Intelligence and Power BI in the field of Business Analytics in the capacity of Data Analyst and Data Engineer
2. Prepare for Data Visualisation in BI by using Power BI, Menu tab, Various tools in Power BI
3. Develop reports in Power BI by using Visuals, Interactive Dashboards and Data Stories, Graphs and Chart

**Books for Reference:**

- *Introducing Microsoft Power BI* - Alberto Ferrari, Marco Russo, Microsoft Press (Kindle)
- *Power BI Step-by-Step Part 1: Up and Running: Power BI Mastery through hands-on Tutorials (Power BI Step by Step)* - Grant Gamble, GCom Solutions (Kindle)

# Technology and Analytics in Accounting Decisions

## COURSE OBJECTIVES:

The students will be able to

1. Illustrate the role and relationship of Accounting Information System with Production, HR and Payroll, Finance, and other information system and technology
2. Examine the determinants of Business Process Analysis, Robotic Process Automation in Financial reporting by using digital Technology enabled Accounting information system
3. Perform Data Analytics of Descriptive, Diagnostic, Predictive and prescriptive

### **Module 1: Accounting Information System**

**5 Hrs**

Meaning - Accounting Information System, Business Cycles - Revenue, Expenditure, Production, HR and Payroll, Finance, Fixed Assets, General Ledger - Enterprise Resource Planning - Database Management Systems - Enterprise Performance Management

### **Module 2: Technology enabled Accounting Transformation**

**5 Hrs**

Systems Development Cycle - Role of Business Process Analysis - Robotic Process Automation in Financial reporting - Artificial Intelligence in Accounting Data Processing - Cloud Computing - Blockchain in Accounting

### **Module 3: Data Analytics**

**5 Hrs**

Data Analytical Tools - Descriptive, Diagnostic, Predictive and prescriptive data analysis - Clustering, classification, regression, Linear regression, exploratory data analysis, Time series analysis - Simulations

## COURSE OUTCOMES:

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

1. Illustrate the role and relationship of Accounting Information System with Production, HR and Payroll, Finance, and other information system and technology
2. Examine the determinants of Business Process Analysis, Robotic Process Automation in Financial reporting by using digital Technology enabled Accounting information system
3. Perform Data Analytics of Descriptive, Diagnostic, Predictive and prescriptive

**Books for Reference:**

- Study text - US CMA - Part 1 - Financial Planning and Performance
- Digital Transformation in Accounting (Business and Digital Transformation), Richard Busulwa, Nina Evans, Routledge

## Cognitive Skills and Flexibility

### COURSE OBJECTIVES:

The students will be able to

1. Solve numerical problems and extract meaning from written communication.
2. Evaluate Reasoning Ability and Communication skills by identifying word and numeric patterns and the related
3. Use Emotional Intelligence for Complex problem solving in Multi tasking settings

#### **Module 1: Numerical and Verbal Ability**

**5 Hrs**

Number system, Arithmetic, Elementary statistics, data interpretation, English Grammar, Reading comprehension

#### **Module 2: Reasoning Ability and Communication skills**

**5 Hrs**

Identifying word and numeric patterns, Problem solving, Figural and Factual Analysis, Decision making, Propositional Reasoning, Visual/Spatial reasoning Process of communication, Barriers to communication, Verbal and Non-verbal communication, Effective communication

#### **Module 3: Cognitive Flexibility**

**5 Hrs**

Building relationships - Human intuition in automated and data driven world - Measured Risks - Multi tasking - Complex problem solving - Emotional Intelligence

### COURSE OUTCOMES:

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

1. Practice Personal Etiquette and display formal behaviour
2. Develop Dining Etiquette and exhibit formal behaviour
3. Perform Social Etiquette and demonstrate formal behaviour

**Books for Reference:**

- Emotional Intelligence: Why It Can Matter More Than IQ, Daniel Goleman, Bantam
- Workbook for Cognitive skills, Exercises for Thought Processing and Word Retrieval (William Beaumont Speech and Language), Susan Howell Brubaker, Wayne State University Press