INVERTIS UNIVERSITY BAREILLY

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CURRICULUM PROPOSAL 2026

MBA Programs

Programs Proposed:

MBA : Business Analytics | 2-Year Program | 4 Semesters

Academic Year 2026 – 2027

CREDIT FRAMEWORK & EVALUATION SCHEME

Credit Structure | Delivery Model | Evaluation Norms

Category	Explanation	L	T	P	CA	EE	Credit Norm
UF University Faculty	Core subjects delivered by University Faculty. Foundation business and management subjects.	3	1	0	30	70	4 Credits / 100 Marks
IP Industry Professional	Delivered by Industry Professionals. Analytics, AI, FinTech and technology subjects.	3	1	0	30	70	4 Credits / 100 Marks
IE Industry Elective	Student selects one industry domain paper from the approved list.	3	1	0	30	70	4 Credits / 100 Marks
CA Split (all subjects)	CA = CA1 (mid-sem test 15 marks) + CA2 (project/assignment 15 marks). For IC Lab: CA1=10, CA2=20.						No change to total marks
SEC Skill Enhancement	Practical tools and software skills. Higher CA weightage.	3	1	0	50	50	4 Credits / 100 Marks
AECC (Theory) Ability Enhancement	Compulsory life skills: ethics, environment. All students.	1	1	0	15	35	2 Credits / 50 Marks
AECC (Project/Viva) Ability Enhancement	Internship, project, viva. Assessed entirely by examiner.	0	0	4	0	100	6 Credits / 100 Marks
AC Analytics/Lab Course	Subjects with practical component. 2L+1T+2P per week.	2	1	2	30	70	4 Credits / 100 Marks

Notes:

1. UF (University Faculty) subjects are delivered by University Faculty foundation business, management and theory subjects. IP (Industry Professional) subjects are delivered by Industry Professionals and External Faculty Partners analytics, AI, FinTech and technology subjects. IE (Industry Elective) subjects allow students to choose one domain specialisation, delivered by Industry Professionals. AE (Ability Enhancement) subjects are mandatory milestones Human Values, Internship and Environmental Science.
2. All UF and IP subjects carry 30 marks CA and 70 marks EE, totalling 100 marks per subject and 4 credits.
3. CA (30 marks) is split into two components: CA1 = 15 marks (mid-semester written test) and CA2 = 15 marks (mini project / tool-based assignment / case submission). This ensures every subject has a formal project-based assessment component.
4. IC Skill and Lab subjects carry CA 50 + EE 50 = 100 marks. CA for SEC is split as: CA1 = 20 marks (practical test) and CA2 = 30 marks (live project / tool demonstration / case presentation).
5. AC (Lab / Analytics) subjects carry CA 30 + EE 70 = 100 marks. CA split: CA1 = 10 marks (lab test) and CA2 = 20 marks (lab project submission and demo).
6. AECC theory subjects (Environmental Science, Human Values) carry 15 CA + 35 EE = 50 marks and 2 credits, with 1 lecture + 1 tutorial per week.
7. AECC project subjects (Internship Viva, Research Project, Capstone) are assessed entirely by the examiner panel 100 marks, 6 credits.
8. IE (Industry Elective) subjects give students the ability to choose one industry domain from the approved list per program. Delivered by an Industry Professional. Each IE follows: 30 CA + 70 EE = 100 marks, 4 credits.
9. Grading is on a 10-point SGPA/CGPA scale. Minimum pass mark is 40% in each component separately.

MBA Business Analytics

2-Year Program | 4 Semesters | 100 Credits

PART A SCHEME OF INSTRUCTIONS

L = Lectures/week | T = Tutorial/week | P = Practical/week | CA = Continuous Assessment | EE = End Semester Exam

YEAR I

SEMESTER 1 MBA Core + Quantitative Foundations									
Course Code	**Course Title**	**Category**	**L**	**T**	**P**	**CA**	**EE**	**Total**	**Credit**
MBA-BA 101	Managerial Economics & Business Environment	UF	3	1	0	30	70	**100**	**4**
MBA-BA 102	Financial Reporting & Analysis	IP	3	1	0	30	70	**100**	**4**
MBA-BA 103	Statistics & Quantitative Methods	UF	3	1	0	30	70	**100**	**4**
MBA-BA 104	Marketing Analytics & CRM	IP	3	1	0	30	70	**100**	**4**
MBA-BA 105	Strategy, Leadership & Organizational Behavior	IP	3	1	0	30	70	**100**	**4**
MBA-BA 106	Data-Driven Decision Making	IP	3	1	0	30	70	**100**	**4**
Total			**18**	**6**	**0**	**180**	**420**	**600**	**24**

SEMESTER 2 Predictive Analytics & ML for Managers									
Course Code	**Course Title**	**Category**	**L**	**T**	**P**	**CA**	**EE**	**Total**	**Credit**
MBA-BA 201	Consulting & Case Practice	IP	3	1	0	30	70	**100**	**4**
MBA-BA 202	Corporate Finance & Valuation	UF	3	1	0	30	70	**100**	**4**
MBA-BA 203	Predictive Analytics & Forecasting	IP	3	1	0	30	70	**100**	**4**
MBA-BA 204	Operations & Supply Chain Analytics	IP	3	1	0	30	70	**100**	**4**
MBA-BA 205	Data Visualization & Storytelling (Lab)	IP	2	1	2	30	70	**100**	**4**
MBA-BA 206	Python & R for Analytics (Lab)	IP	2	1	2	30	70	**100**	**4**
Total			**16**	**6**	**4**	**180**	**420**	**600**	**24**

SUMMER (after Year I)

SEMESTER 0 Summer Internship									
Course Code	**Course Title**	**Category**	**L**	**T**	**P**	**CA**	**EE**	**Total**	**Credit**
MBA-BA 295	Summer Internship Report & Viva	AE	0	0	4	0	100	**100**	**6**
Total			**0**	**0**	4	**0**	**100**	**100**	**6**

YEAR II

SEMESTER 3 Advanced AI, Big Data & Strategy									
Course Code	**Course Title**	**Category**	**L**	**T**	**P**	**CA**	**EE**	**Total**	**Credit**
MBA-BA 301	Deep Learning & NLP for Business (Lab)	IP	2	1	2	30	70	**100**	**4**
MBA-BA 302	Big Data & Cloud Platforms	UF	3	1	0	30	70	**100**	**4**
MBA-BA 303	AI Strategy & Business Transformation	UF	3	1	0	30	70	**100**	**4**
MBA-BA 304	Financial Analytics & Risk Modeling	IP	3	1	0	30	70	**100**	**4**
MBA-BA 305	Industry Elective B SaaS & Revenue Analytics	IE	3	1	0	30	70	**100**	**4**
MBA-BA 306	MBA Industry Capstone Project & Viva	AE	0	0	4	0	100	**100**	**6**
Total			**14**	**5**	**6**	**150**	**450**	**600**	**26**

SEMESTER 4 Capstone, Electives & Placement									
Course Code	**Course Title**	**Category**	**L**	**T**	**P**	**CA**	**EE**	**Total**	**Credit**
MBA-BA 401	Industry Elective A Supply Chain & Logistics Analytics	IE	3	1	0	30	70	**100**	**4**
MBA-BA 402	AI Ethics & Data Governance	UF	3	1	0	30	70	**100**	**4**
MBA-BA 403	Machine Learning for Management (Lab)	IP	2	1	2	30	70	**100**	**4**
MBA-BA 404	Generative AI for Leaders (Lab)	IP	2	1	2	30	70	**100**	**4**
MBA-BA 405	Executive Leadership & AI Policy	UF	3	1	0	30	70	**100**	**4**
Total			**13**	**5**	**4**	150	350	**500**	**20**

PART B DETAILED SYLLABUS

Each subject carries 5 teaching units. One unit = approximately 9 lecture hours + 3 tutorial hours (for a 3-1-0 subject) over an 18-week semester.

Managerial Economics & Business Environment	
Category: UF 1 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Demand Analysis and Business Environment: demand and supply fundamentals; elasticity of demand (price, income, cross-price); demand forecasting methods (survey, expert opinion, trend analysis, econometric); business environment – internal and external factors; impact of economic environment on managerial decisions.
Unit 2	Production, Cost and Business Decisions: production functions (short-run and long-run); cost concepts and cost-output relationships; economies of scale and scope; learning curve; break-even analysis; cost analysis for pricing, production, and operational decisions.
Unit 3	Market Structure and Pricing Decisions: market structures (perfect competition, monopoly, monopolistic competition, oligopoly); pricing strategies; price discrimination; game theory (prisoner's dilemma, Nash equilibrium, dominant strategy); competitive decision-making in business.
Unit 4	Business Strategy and Industry Analysis: Porter's Five Forces; competitive advantage (cost leadership and differentiation); value chain analysis; Blue Ocean Strategy; PESTEL analysis; digital disruption and strategic business response.
Unit 5	Macroeconomic and Global Business Environment: GDP and national income; inflation (CPI, WPI, core inflation); business cycles; monetary policy (repo rate, CRR, quantitative easing); fiscal policy; international trade, exchange rates, and their impact on business strategy.

Financial Reporting & Analysis	
Category: IP 1 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Financial Statements Overview: purpose and users of financial statements; income statement revenue recognition, expenses, EBITDA, PAT; balance sheet assets, liabilities, equity; cash flow statement operating, investing, financing; notes to accounts; IND AS overview
Unit 2	Financial Statement Analysis: horizontal analysis trend analysis; vertical analysis common size statements; ratio analysis liquidity ratios (current, quick), profitability ratios (ROE, ROA, ROCE), solvency ratios (D/E, interest coverage), efficiency ratios (asset turnover, receivables days)
Unit 3	Cash Flow Analysis: direct vs indirect method; free cash flow to firm (FCFF) and equity (FCFE); cash flow forecasting; cash conversion cycle; working capital analysis from cash flow statement; quality of earnings assessment
Unit 4	Earnings Quality and Corporate Reporting: accrual accounting and its implications; creative accounting red flags; earnings management techniques; segment reporting; related party transactions; management discussion and analysis (MD&A)
Unit 5	Integrated Reporting and Analytics: sustainability reporting GRI, BRSR; ESG disclosures; data extraction from financial reports using Python PDF parsing, XBRL; financial databases Capitaline, Prowess; building a financial analysis dashboard

Statistics & Quantitative Methods	
Category: UF 3 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Probability and Distributions: probability axioms; conditional probability; Bayes' theorem; discrete distributions binomial, Poisson; continuous distributions normal, t, chi-square, F; moment generating functions; joint distributions; covariance and correlation
Unit 2	Statistical Inference: sampling distributions; Central Limit Theorem; point estimation MLE, MOM; interval estimation confidence intervals for mean, proportion, difference; sample size determination; bootstrapping basics
Unit 3	Regression Analysis: simple linear regression OLS derivation; multiple regression assumptions, multicollinearity, heteroscedasticity, autocorrelation; logistic regression; polynomial regression; model selection AIC, BIC, adjusted R-squared
Unit 4	ANOVA and Non-parametric Tests: one-way ANOVA F-test, post-hoc tests (Tukey, Bonferroni); two-way ANOVA; Mann-Whitney U test; Wilcoxon signed-rank test; Kruskal-Wallis test; Spearman rank correlation; chi-square tests
Unit 5	Bayesian Methods and Decision Analysis: prior and posterior distributions; Bayes' theorem application in business; decision trees construction and evaluation; expected monetary value; expected value of perfect information (EVPI); sensitivity analysis

Python & R for Analytics (Lab)	
Category: IP 9 | L-T-P: 2-1-2 | Credits: 4 Credits	
Unit 1	Python for Financial and Business Data: NumPy arrays and operations; Pandas data wrangling, merging, reshaping; loading data from multiple formats; handling missing data; financial time series with Pandas DatetimeIndex; data cleaning pipelines
Unit 2	Statistical Analysis in Python: SciPy for hypothesis testing; statsmodels for regression OLS, GLM; ANOVA in Python; bootstrapping; Bayesian inference with PyMC basics; results interpretation and visualisation with Seaborn
Unit 3	R Fundamentals for Analytics: R environment RStudio, vectors, data frames, factors; dplyr for data manipulation filter, select, mutate, group_by, summarise; ggplot2 for visualisation; tidyr for data reshaping; R Markdown for reporting
Unit 4	Statistical Modelling in R: linear models with lm(); generalised linear models with glm(); model diagnostics; caret package for ML train/test split, cross-validation; random forest and XGBoost in R; ROC curves in R
Unit 5	Integrated Analytics Pipeline: combining Python and R; Jupyter notebooks for reproducible analysis; R Markdown for professional reports; automating statistical reports; scheduling analytics workflows; communication of analytical findings

Strategy, Leadership & Organizational Behavior	
Category: IP 3 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Individual Behavior in Organizations: perception and attribution; personality (Big Five model); learning theories (classical and operant conditioning); emotional intelligence (Goleman's model); managing individual differences and workplace behavior
Unit 2	Motivation and Employee Engagement: content theories Maslow, Alderfer, McClelland, Herzberg; process theories Vroom's expectancy, Porter-Lawler, Adams' equity; self-determination theory; motivation strategies for knowledge workers and analytics professionals
Unit 3	Strategy and Leadership: strategic thinking and decision-making; leadership theories (trait, behavioural, situational, path-goal); transformational and transactional leadership; servant leadership; strategic leadership competencies; leading high-performance organizations.
Unit 4	Team Dynamics and Organizational Effectiveness: team formation (Tuckman's model); team roles (Belbin); communication and collaboration; conflict management (task, relationship, process conflicts); negotiation (distributive and integrative); managing cross-functional teams.
Unit 5	Organizational Culture and Change Management: organizational culture (Hofstede and GLOBE frameworks); cultural diversity; change management models (Kotter's 8-Step Model, Lewin's Unfreeze–Change–Refreeze); resistance to change; leading digital transformation and organizational change.

Data-Driven Decision Making	
Category: IP 4 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Executive Decision Frameworks with Data: rational vs intuitive decision making at leadership level; cognitive biases that affect senior decisions anchoring, confirmation, availability; debiasing strategies for management teams; using data to challenge intuition in boardrooms; building a data-informed culture across the organisation
Unit 2	Analytics ROI and Business Case Design: measuring the value of analytics investments; analytics maturity model from reporting to prescriptive; building a business case for data infrastructure; presenting analytics ROI to a CFO or board; cost of poor data quality; analytics governance framework
Unit 3	Leading Data-Driven Organisations: CDO and CAIO roles responsibilities and challenges; structuring a data team for a mid-sized Indian company; data literacy programmes for non-technical leaders; managing resistance to data-driven decisions; case studies Amazon, Jio, HDFC Bank data cultures
Unit 4	Strategic Experimentation and A/B Testing for Leaders: designing a culture of experimentation; approving and reviewing A/B test results as a manager; statistical significance for non-statisticians; when experiments fail managing organisational learning; Google, Amazon, Flipkart experimentation cultures
Unit 5	Communicating with Data at Leadership Level: data storytelling for C-suite presentations; presenting uncertainty to boards; building executive dashboards that drive decisions; handling data-based pushback in leadership meetings; ethics of data communication avoiding misleading presentations

Machine Learning for Management (Lab)	
Category: IP 12 | L-T-P: 2-1-2 | Credits: 4 Credits	
Unit 1	ML for Business Leaders Strategic Context: understanding what ML can and cannot do for a business; framing business problems as ML problems; when to commission an ML project vs when not to; ML maturity assessment for an organisation; ML investment decision framework; reading and interpreting ML outputs as a non-technical decision maker
Unit 2	Building and Managing ML Teams: roles in an ML project data scientist, ML engineer, business analyst, product manager; hiring criteria for ML talent; working effectively with data science teams; setting expectations and timelines; managing ML project delivery; structuring an ML centre of excellence
Unit 3	Evaluating ML Vendors and Platforms: build vs buy vs partner decision for ML; evaluating ML vendor proposals key questions to ask; understanding SLAs for ML systems; total cost of ownership of ML platforms; contract negotiation for ML services; due diligence for AI acquisitions
Unit 4	ML Governance and Model Risk: model risk management framework for managers; understanding model validation requirements; governance of ML decisions in high-stakes contexts credit, hiring, pricing; managing model failure and reputational risk; escalation protocols for ML errors; board reporting on ML risk
Unit 5	Measuring ML Business Impact Lab: defining ML success metrics that align with business KPIs; measuring ROI of ML projects; building an ML business case for board approval; case studies ML success and failure in Indian corporates; live exercise: evaluate an ML project proposal as a management committee

Corporate Finance & Valuation	
Category: UF 6 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Valuation Fundamentals: discounted cash flow (DCF) framework; free cash flow to firm (FCFF) and equity (FCFE); terminal value Gordon growth model, exit multiple; WACC computation; sensitivity and scenario analysis in Excel
Unit 2	Relative Valuation: comparable company analysis selecting comps, adjusting for differences; precedent transaction analysis; equity valuation multiples P/E, P/BV, P/S; enterprise value multiples EV/EBITDA, EV/Sales; sum-of-parts valuation
Unit 3	Capital Structure and Financing: Modigliani-Miller theorem without and with taxes; trade-off theory; pecking order theory; signalling theory; WACC optimisation; leveraged buyout (LBO) concept; real-world capital structure decisions
Unit 4	Mergers and Acquisitions Analytics: types of M&A; synergy valuation revenue and cost synergies; accretion-dilution analysis; exchange ratio; due diligence framework; deal financing; post-merger integration challenges; M&A case studies
Unit 5	Financial Modelling: three-statement model linking income statement, balance sheet and cash flow; integrated financial model in Excel; scenario and sensitivity analysis; model best practices; introduction to Python financial modelling

Predictive Analytics & Forecasting	
Category: IP 6 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Forecasting as a Strategic Management Tool: the role of forecasting in FP&A; types of forecasts a manager must commission and review revenue, demand, risk; forecast governance who owns the forecast; managing forecast bias in organisations; connecting forecasting to strategic planning cycles
Unit 2	Reviewing and Challenging Forecasts: how to read a forecast output as a non-technical manager; understanding forecast confidence intervals; challenging forecast assumptions in a management review; common forecasting errors why organisations get it wrong; case studies of corporate forecasting failures
Unit 3	Demand and Revenue Forecasting for Business Leaders: demand forecasting process in Indian retail, FMCG and e-commerce; revenue forecasting for FP&A quarterly and annual; S&OP process sales and operations planning; connecting demand forecast to inventory and working capital decisions
Unit 4	AI-Based Forecasting A Manager's Perspective: when to use AI forecasting vs traditional methods; evaluating AI forecasting vendor claims; implementation challenges data quality, change management; measuring forecast accuracy improvement from AI; governance of automated forecasting systems
Unit 5	Forecasting Governance and Board Reporting: building a forecast review cadence; escalation when forecasts miss; scenario planning and stress testing for management teams; presenting forecast scenarios to board best case, base case, worst case; integrating external economic forecasts into business planning

Marketing Analytics & CRM	
Category: IP 2 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	CMO-Level Analytics Strategy: marketing analytics maturity model; building a marketing analytics team roles, hiring, structure; defining marketing KPIs that connect to business outcomes; marketing attribution strategy choosing the right model for the business; analytics budget allocation across channels
Unit 2	Enterprise CRM Strategy: CRM as a strategic asset not just a sales tool; CRM platform evaluation Salesforce, HubSpot, Zoho; CRM data governance ownership, quality, privacy; integrating CRM with marketing, product and finance; measuring CRM ROI; CRM implementation governance and change management
Unit 3	Customer Analytics at Scale: CLV strategy how to use CLV for resource allocation decisions; churn reduction as a P&L lever; customer segmentation strategy for enterprise; personalisation at scale governance and ethics; customer analytics for board-level growth discussions
Unit 4	Marketing Mix and Budget Optimisation: marketing mix modelling for budget allocation decisions; media mix review process for CMOs; measuring incrementality of marketing spend; analytics-driven negotiation with agencies; marketing ROI reporting to the CFO and board
Unit 5	Brand and Growth Analytics Strategy Level: brand health measurement frameworks; growth analytics acquisition, activation, retention, referral, revenue; north star metric design for the business; NPS as a strategic tool; presenting marketing analytics performance to the board

Operations & Supply Chain Analytics	
Category: IP 7 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	COO-Level Operations Strategy with Analytics: operations strategy cost, quality, speed, flexibility; using analytics to make build vs outsource decisions; measuring operational excellence OEE, perfect order rate, OTIF; analytics-driven benchmarking against industry peers; presenting operations performance to the board
Unit 2	Supply Chain Risk and Resilience Analytics: supply chain risk identification and scoring; resilience measurement time to recover, time to survive; analytics for supplier diversification decisions; geopolitical risk modelling for supply chains; case studies COVID-19 supply chain disruptions and recovery
Unit 3	Analytics-Driven Vendor and Procurement Strategy: supplier performance analytics scorecard design; spend analytics for procurement category management; analytics in contract negotiation; total cost of ownership modelling; procurement analytics ROI; building a data-driven procurement function
Unit 4	Digital Supply Chain A Leader's Perspective: evaluating IoT and digital twin investments for supply chain; measuring ROI of supply chain digitalisation; change management for digital supply chain transformation; vendor selection for supply chain technology; governance of automated supply chain decisions
Unit 5	Operations Analytics for Board Reporting: designing operations KPI dashboards for leadership; inventory analytics and working capital impact; translating operations analytics into financial outcomes; presenting supply chain risk to the board; case studies Amazon, Flipkart, DMart operations analytics

Data Visualization & Storytelling (Lab)	
Category: IP 8 | L-T-P: 2-1-2 | Credits: 4 Credits	
Unit 1	Visualisation Science: preattentive attributes colour, size, shape, position; Gestalt principles applied to data viz; chart selection guide when not to use a pie chart; clutter reduction; accessibility colour-blind friendly palettes; mobile vs desktop dashboards
Unit 2	Advanced Tableau: LOD expressions deep dive; table calculations running total, percent of total; Tableau Prep for data preparation; spatial analytics with maps; custom shapes; Tableau Server administration basics; Tableau Pulse
Unit 3	Advanced Power BI: complex DAX time intelligence functions, variables; row-level security (RLS) setup; incremental data refresh; Power BI Service workspaces, apps, dataflows; Power BI Embedded concepts; performance optimisation
Unit 4	Narrative Analytics and Storytelling: data story arc setup, conflict, resolution; annotation and callouts; before-after chart redesign examples; building an executive narrative deck; uncertainty and confidence communication in slides
Unit 5	Live Dashboard Project: designing and building a full business intelligence dashboard data preparation, modelling, visualisation, narrative; stakeholder presentation; handling live Q&A; peer feedback; dashboard review checklist

Deep Learning & NLP for Business (Lab)	
Category: IP 10 | L-T-P: 2-1-2 | Credits: 4 Credits	
Unit 1	Deep Learning for Business Applications: review of neural network fundamentals; choosing DL for business problems; image, text and tabular data applications; model selection framework; computational cost vs business value tradeoffs
Unit 2	CNN Business Applications: image classification for product quality control; document digitisation with OCR; invoice processing; visual customer experience analytics; transfer learning for domain-specific image tasks with Keras
Unit 3	NLP for Business Text Analytics: sentiment analysis on customer reviews and social media; topic modelling (LDA) for survey responses; document classification; named entity recognition for contract analytics and compliance
Unit 4	Transformer and BERT Applications: BERT fine-tuning for text classification; question answering from company knowledge base; text summarisation of reports; zero-shot classification; HuggingFace pipeline for quick deployment
Unit 5	End-to-End NLP Business Pipeline: data collection and labelling; preprocessing; model training and evaluation; API deployment; integration with BI tools; monitoring model performance; responsible NLP bias, fairness, privacy

Big Data & Cloud Platforms	
Category: UF 10 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Cloud Platform Strategy for Business Leaders: cloud adoption strategy lift and shift vs cloud-native; build vs buy vs partner decision for data platforms; evaluating AWS, GCP and Azure for enterprise use beyond technical specs; cloud total cost of ownership hidden costs and optimisation; cloud vendor negotiation and contract management
Unit 2	Data Platform Governance and Architecture Decisions: CDO-level data architecture decisions; data lake vs data warehouse vs lakehouse choosing without being a technologist; data platform vendor evaluation framework; data platform RFP design; governance of data platform decisions who decides, who pays, who owns
Unit 3	Big Data Investment and ROI: measuring ROI of big data investments; business case for data platform modernisation; phased rollout strategy for data platform migration; managing data platform projects timelines, risks, stakeholder management; post-implementation review of data platform projects
Unit 4	Data Sovereignty, Security and Compliance in Cloud: data residency requirements for Indian businesses RBI, SEBI, DPDP Act; cloud security governance what a manager must know; data breach responsibilities in cloud environments; vendor risk management for cloud partners; audit of cloud data platforms
Unit 5	Managing Data Engineering Teams: roles in a data engineering team data engineer, data architect, platform engineer; hiring and managing data platform talent; sprint planning for data platform teams; managing platform outages and incidents as a leader; case studies data platform transformations at Indian enterprises

AI Strategy & Business Transformation	
Category: UF 11 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	AI Strategy Framework: assessing AI readiness data maturity, talent, infrastructure; build vs buy vs partner decision; AI product roadmap development; prioritisation frameworks value vs complexity matrix; competitive moat from AI
Unit 2	Data Strategy: data as a strategic asset; data monetisation models; role of the Chief Data Officer (CDO) and Chief AI Officer (CAIO); enterprise data architecture; data platform strategy; data network effects
Unit 3	Organisational AI Transformation: change management for AI adoption; AI upskilling and reskilling; AI centre of excellence (COE) design; AI governance structure; cross-functional AI team models; culture change for data-driven decision-making
Unit 4	AI Business Models: platform business models powered by AI; AI SaaS and embedded AI; network effects from data; winner-takes-all dynamics; competitive strategy in AI markets; case studies Amazon recommendation, Netflix personalisation
Unit 5	AI Strategy in Practice: case studies AI strategy at Jio, Infosys, Wipro, HDFC Bank; lessons from AI failures Amazon hiring algorithm, chatbot failures; responsible AI scaling; measuring AI business impact; presenting AI strategy to board

Financial Analytics & Risk Modeling	
Category: IP 11 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	CRO-Level Risk Strategy and Appetite: risk appetite statement design board and management level; enterprise risk framework three lines of defence from a leadership perspective; risk culture assessment and improvement; integrating risk analytics into strategic planning; presenting risk appetite to regulators
Unit 2	Model Risk Governance for Senior Leaders: understanding model risk management without building models; commissioning and reviewing model validation; governance of high-stakes analytical models credit, market, operational; escalation protocols for model failures; regulatory expectations for model risk from a management view
Unit 3	Capital Allocation and Risk-Adjusted Performance: risk-adjusted return on capital (RAROC) for business decisions; capital allocation across business units using analytics; economic capital framework board-level decisions; stress testing designing scenarios and reviewing results as a leader; ICAAP governance
Unit 4	Regulatory Risk Engagement Strategy: managing regulatory relationships around risk models; preparing for RBI/SEBI risk inspections; responding to model risk findings from regulators; board responsibilities for risk governance; global regulatory comparison how to manage multi-jurisdictional risk reporting
Unit 5	Enterprise Risk Dashboard and Board Reporting: designing a CRO risk dashboard for the board; key risk indicators selection, monitoring, escalation; integrated risk reporting financial, operational, reputational; presenting stress test results to the board; case studies risk governance failures and lessons

Generative AI for Leaders (Lab)	
Category: IP 13 | L-T-P: 2-1-2 | Credits: 4 Credits	
Unit 1	GenAI Investment Strategy for Business Leaders: GenAI market landscape major providers, capabilities and limitations; evaluating GenAI opportunities for your business; GenAI investment decision framework prioritisation, ROI estimation, risk assessment; build vs buy for GenAI; total cost of GenAI deployment at enterprise scale
Unit 2	GenAI Vendor Evaluation and Procurement: key questions to ask GenAI vendors; understanding SLAs and performance guarantees for GenAI systems; GenAI contract negotiation IP ownership, data privacy, liability; evaluating Microsoft Copilot, Google Workspace AI and enterprise LLM platforms; vendor risk management for GenAI
Unit 3	GenAI Risk and Governance Framework: GenAI risks for organisations hallucination, data leakage, reputational; designing a GenAI acceptable use policy; board-level governance of GenAI deployment; incident management when GenAI fails; managing employee adoption and resistance; legal liability for GenAI outputs
Unit 4	Responsible GenAI Scaling for Organisations: responsible AI deployment checklist for leaders; measuring GenAI productivity impact at organisation level; GenAI change management communication, training, culture; regulatory expectations for GenAI use in financial services and healthcare; presenting GenAI strategy to the board
Unit 5	GenAI Business Case and Leadership Lab: building a GenAI business case for board approval; calculating GenAI ROI time saved, error reduction, revenue impact; lab exercise evaluate three GenAI proposals as a management committee; present recommendation with financial justification; structured peer review and faculty feedback

AI Ethics & Data Governance	
Category: UF 13 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Enterprise AI Ethics Programme Design: moving from principles to practice building an AI ethics programme for an organisation; AI ethics committee composition, mandate, decision rights, escalation; ethics review process for AI products and models; embedding ethics into the AI development lifecycle; measuring ethics programme effectiveness
Unit 2	Board Accountability and AI Governance: board responsibilities for AI oversight what directors must know; governance structures for AI CAIO, CDO, ethics committee, audit committee; AI risk reporting to the board; board-level AI literacy programmes; global examples of board accountability for AI failures
Unit 3	Regulatory Engagement on AI: understanding India DPDP Act 2023 from a leadership perspective obligations, penalties, governance; engaging with RBI, SEBI and IRDAI on AI use; managing regulatory inspections of AI systems; preparing regulatory submissions for AI-driven products; global regulatory landscape for leaders
Unit 4	Data Governance Operating Model: designing a data governance operating model federated vs centralised; data ownership and stewardship at enterprise level; data governance committee structure; measuring data quality as a business metric; data governance budget what to invest and why; case studies of data governance success and failure
Unit 5	AI Audit and Accountability: commissioning an AI audit internal vs external; what auditors look for in AI systems; responding to AI audit findings; algorithmic accountability mechanisms; AI governance maturity model where is your organisation; presenting AI governance to regulators and investors

Consulting & Case Practice	
Category: IP 5 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Consulting Fundamentals and Problem Structuring: consulting industry overview MBB, Big 4, boutique firms; MECE principle mutually exclusive, collectively exhaustive; issue trees and logic trees; hypothesis-driven approach; problem statement formulation; scoping an engagement; stakeholder mapping
Unit 2	Quantitative Case Analysis: market sizing top-down and bottom-up; competitive benchmarking; Excel modelling for consulting sensitivity tables, scenario analysis; business case estimation; data interpretation for case solving; secondary research tools Statista, IBEF, Bloomberg
Unit 3	Case Communication and Slide Craft: pyramid principle situation, complication, resolution (SCR); slide structure title as insight; executive summary writing; data visualisation for consulting decks; presenting recommendations to C-suite; handling objections and pushback
Unit 4	Sales Analytics for Consultants: sales pipeline analytics; CRM data analysis Salesforce; B2B sales metrics win rate, ACV, CAC, LTV; territory analytics; go-to-market strategy analytics; pricing analytics; revenue growth management frameworks
Unit 5	Live Case Practice Project Assessment: two live case studies presented to industry panel one strategy case, one analytics case; structured problem solving under time pressure; peer review and structured feedback; written case recommendation submitted as CA2 project; final presentation counts as 15 marks project component of CA

Summer Internship Report & Viva	
Category: AE | L-T-P: 0-0-4 | Credits: 6 Credits	
Unit 1	Internship Placement: minimum 8–10 weeks between Semester 2 and Semester 3; placement at an analytics firm, consulting company, data team of a corporate, technology company or research organisation; role must involve real analytics or AI work not administrative; internship letter and role description submitted to placement cell; faculty supervisor assigned before commencement
Unit 2	Industry Contribution: student must contribute to a real business deliverable an analytics project, a data pipeline, a dashboard, a consulting output or a model; the organisation's manager confirms the contribution in writing; passive observation does not qualify; mid-internship progress report submitted to faculty supervisor
Unit 3	Learning and Context Building: the internship is designed to give MBA students real organisational context before Year 2; students are expected to observe how analytics decisions are made at leadership level, how data teams are structured, and how analytics ROI is measured this context directly informs Year 2 subjects
Unit 4	Black Book Documentation: all internship work documented and added to the Black Book organisation profile, role, project, tools, learnings, manager feedback, certificate; this section of the Black Book is evaluated as part of the final Black Book submission
Unit 5	Internship Report and Viva: minimum 3,000-word report covering role, contribution, key learnings and how the experience changed their perspective on analytics leadership; viva at start of Semester 3 before faculty panel; internship certificate from organisation mandatory; assessment: report quality (50%) + viva (50%)

Industry Elective A Supply Chain & Logistics Analytics	
Category: IE 1 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	India supply chain landscape General Trade, Modern Trade, e-commerce, quick commerce, D2C; supply chain structure and key players; SCOR model; supply chain KPIs OTIF, perfect order rate, fill rate, cash-to-cash cycle
Unit 2	Demand forecasting for Indian markets seasonality, festive demand spikes, regional variation; moving average; exponential smoothing; Holt-Winters; forecast accuracy metrics MAE, MAPE, RMSE; S&OP process
Unit 3	Inventory analytics ABC-XYZ analysis; safety stock calculation; reorder point; days of inventory outstanding (DIO); warehouse analytics throughput, utilisation, pick accuracy, labour productivity; vendor scorecard analytics
Unit 4	Last mile delivery analytics route optimisation; delivery success rate; returns analytics; freight analytics cost per kg, lane analysis, 3PL performance evaluation; cold chain analytics temperature compliance, spoilage rates
Unit 5	Tools and live project Excel, Python, Power BI, SAP overview; India case studies Delhivery, BigBasket, Amazon India, Zepto, Blinkit; live project building a supply chain performance dashboard for an Indian FMCG or e-commerce business

MBA-BA | Industry Elective B SaaS & Revenue Analytics	
Category: IE 2 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	India SaaS landscape Freshworks, Zoho, Chargebee, Leadsquared, Clevertap; SaaS business model subscription, freemium, usage-based pricing; SaaS company structure product, sales, customer success, growth teams
Unit 2	Core SaaS metrics MRR, ARR, churn rate, NRR, GRR, LTV, CAC, payback period, magic number; MRR movement analysis new MRR, expansion MRR, contraction MRR, churned MRR; revenue cohort analysis retention curves
Unit 3	Product analytics for SaaS DAU, MAU, WAU; feature adoption rate; activation rate; time to value; funnel analysis AARRR framework; A/B testing for SaaS product decisions; tools Mixpanel, Amplitude, Firebase
Unit 4	Customer success analytics customer health score design; NPS analysis; churn prediction model; expansion signals upsell and cross-sell triggers; sales analytics for SaaS pipeline analytics, win rate, ACV, sales cycle length; pricing analytics price elasticity, tier optimisation
Unit 5	Tools and live project Salesforce, HubSpot, Mixpanel, Amplitude, Looker, Tableau; India SaaS case studies Freshworks growth analytics, Zoho revenue model, Chargebee subscription analytics; live project building a SaaS revenue dashboard and churn prediction model

Industry Elective C Product & Growth Analytics	
Category: IE 3 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Product analytics fundamentals user behaviour data, events, funnels, retention; product analytics tools Mixpanel, Amplitude, Firebase, Hotjar; key product metrics DAU, MAU, WAU, retention rate, churn rate, session length, stickiness
Unit 2	Growth metrics CAC, LTV, LTV:CAC ratio, payback period; funnel analysis AARRR framework: acquisition, activation, retention, referral, revenue; cohort analysis understanding user retention by signup period; feature adoption analytics
Unit 3	A/B testing for product decisions hypothesis design, statistical significance, rollout strategy; personalisation analytics; notification and engagement analytics; onboarding funnel optimisation; time to value measurement
Unit 4	Growth hacking techniques viral loops, referral programme analytics, SEO analytics, content performance; India product case studies Swiggy, Zomato, PhonePe, Zepto, Meesho product growth analytics; growth team structure and ways of working
Unit 5	Tools and assessment Mixpanel, Amplitude, Google Analytics 4, Hotjar, Firebase; India case studies Swiggy growth analytics, PhonePe product metrics, Zepto retention model; CA: mid-semester progress report (30 marks); EE: product analytics dashboard or growth recommendation (40 marks) + presentation to company panel (30 marks)

Industry Elective D Sales Analytics & Consulting	
Category: IE 4 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Sales Analytics Foundation: sales data ecosystem CRM, ERP, call logs, win-loss data; key sales metrics pipeline value, win rate, sales velocity, ACV, ARR; building a sales performance dashboard; B2B vs B2C sales analytics; sales analytics maturity model
Unit 2	CRM Analytics and Lead Intelligence: CRM platforms Salesforce, HubSpot; lead scoring models logistic regression and ML; contact and account scoring; ideal customer profile (ICP) analytics; territory planning with data; quota-setting using historical analytics
Unit 3	Sales Forecasting and Pipeline Analytics: pipeline stage conversion rates; sales forecasting methods weighted pipeline, regression, ML-based; forecast accuracy measurement; deal risk scoring; sales cycle analysis; cohort-based revenue forecasting
Unit 4	Consulting & Case-Solving Module: MECE principle; issue trees and logic trees; hypothesis-driven approach; market sizing top-down, bottom-up; structured problem solving under time pressure; pyramid principle for recommendations; consulting slide structure
Unit 5	Live Case Practice: two industry case studies one B2B sales analytics case, one consulting strategy case; mock client presentation; peer review; structured feedback; written case recommendation in consulting format; final project sales analytics solution for a real or simulated business

MBA Industry Capstone Project & Viva	
Category: AE | L-T-P: 0-0-4 | Credits: 6 Credits	
Unit 1	Industry-Sponsored Problem: the capstone problem must come from a real organisation sourced through the placement cell, faculty network or student's internship employer; the organisation signs a problem statement agreement before work begins; student cannot fabricate or simulate the problem; industry mentor assigned from the sponsoring organisation at Director level or above
Unit 2	Consulting-Grade Deliverable: the deliverable must be something the organisation can act on a data strategy recommendation with financial justification, a working analytics solution, or an AI governance framework; a written report alone does not qualify; deliverable reviewed by industry mentor at mid-point for business relevance
Unit 3	Project Execution Standards: minimum 8-week engagement with the sponsoring organisation; at least three formal touchpoints with industry mentor; faculty supervisor oversees methodology and academic standards; student presents interim findings to both faculty and industry mentor before final submission
Unit 4	Final Submission: supporting document of minimum 8,000 words executive summary, problem statement, approach, analysis, solution, implementation roadmap, cost-benefit, risk assessment; plus the primary deliverable working solution, strategy deck or governance framework; all submitted one week before viva
Unit 5	Mixed Evaluation Panel Tier 1 Standard: panel must include minimum one external industry professional at Director or VP level from analytics, consulting or technology industry; panel evaluates on business merit is this recommendation implementable, is this model production-ready; assessment: deliverable quality (40%) + business impact demonstrated (30%) + viva (30%); industry mentor's evaluation carries 30% weight

Executive Leadership & AI Policy	
Category: UF 14 | L-T-P: 3-1-0 | Credits: 4 Credits	
Unit 1	Executive Leadership: leadership at scale from team leader to C-suite; board governance and director responsibilities; stakeholder management investors, regulators, employees; managing in complexity and ambiguity; executive presence
Unit 2	Leading AI Transformation: CDO and CAIO roles responsibilities and challenges; AI strategy governance at board level; cross-functional AI alignment; managing data scientists and AI teams; building an AI-first culture; case studies
Unit 3	AI Policy and Regulation: national AI strategies India NITI Aayog AI framework, US AI executive order; EU AI Act governance obligations; IOSCO guidance on AI in financial markets; FSB reports on AI and financial stability
Unit 4	Crisis and Risk Leadership: reputational risk from AI system failures; crisis communication strategy; managing regulatory investigations; board accountability for AI ethics; business continuity in data breaches; case studies AI failures
Unit 5	Future of Work and Personal Leadership: impact of AI on job roles; skills of the future technical fluency, critical thinking, adaptability; building a personal leadership brand; mentoring and developing AI talent; career planning for the AI era