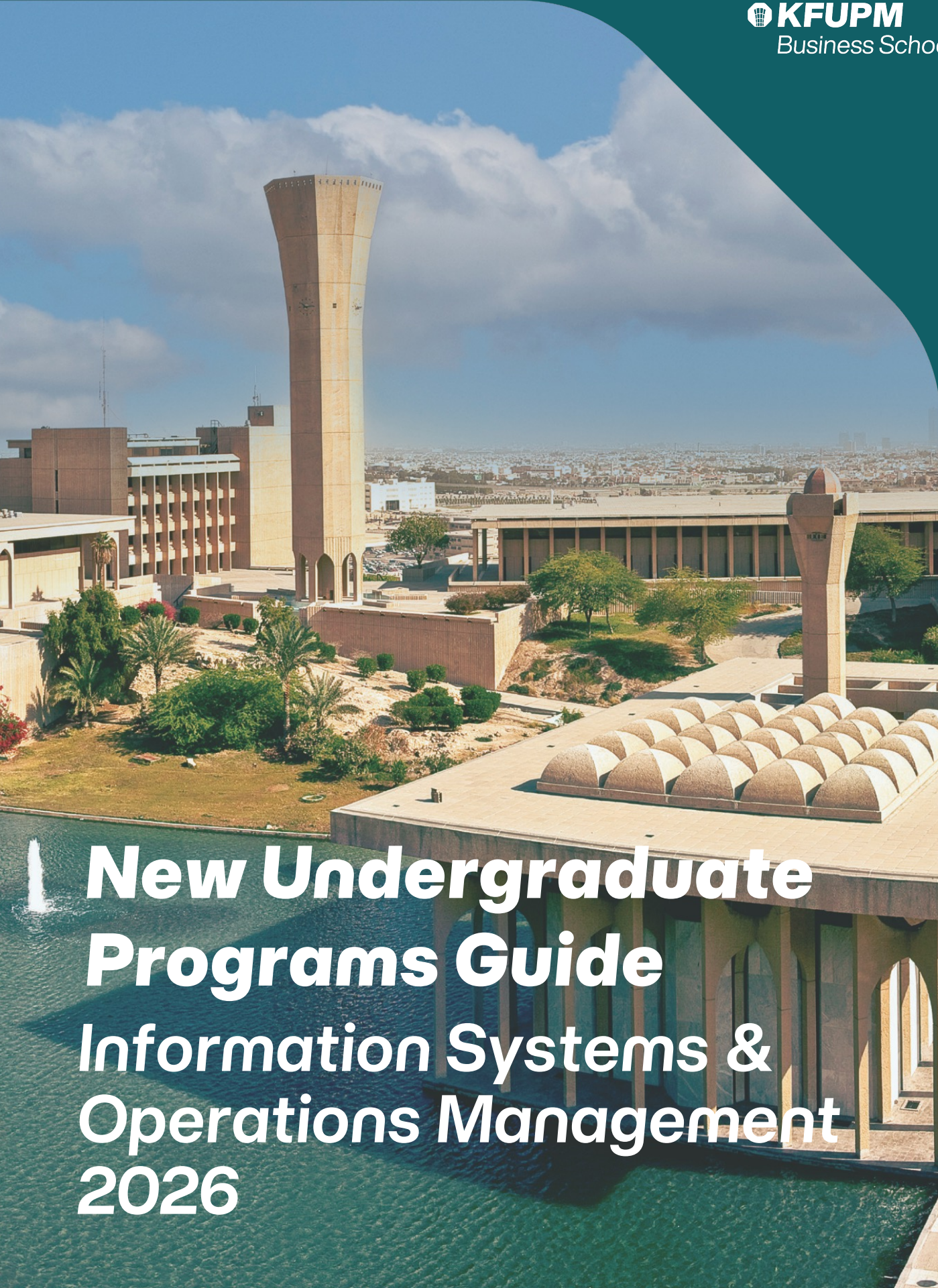




New Undergraduate Programs Guide Information Systems & Operations Management 2026

BS Business Analytics and AI

A business degree *built for the age of data and AI*



Overview

The Bachelor of Science in Business Analytics & Artificial Intelligence prepares students to improve **organizational performance** through business analytics, **business intelligence**, and AI-enabled decision support. The program equips graduates to **measure performance**, generate **KPI-driven insights**, support **target setting and budgeting**, and translate data into evidence-based managerial decisions across business functions. The curriculum is structured as a **progression from analytics foundations to performance-driven decision support**.



Prepares graduates to translate **data** into measurable **business outcomes across sectors** that increasingly rely on **analytics-led transformation**

Disciplines and competencies covered



Performance management
& budgeting



Quantitative analytics &
computing



Business intelligence &
decision support



AI, governance,
& digital technologies



Combines **business analytics, business intelligence, KPI-driven performance management, and AI-enabled decision support** across business functions



Focuses on using analytics and AI to **improve organizational performance**, planning, budgeting, and decision-making unlike traditional business programs or purely technical AI degrees



Prepares graduates to translate **data** into measurable **business outcomes across sectors** that increasingly rely on **analytics-led transformation**

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Graduates are hired not to build **algorithms**, but to **turn analytics and AI** into **measurable organizational performance**



Degree Plan

BS Business Analytics & Artificial Intelligence

 Four years | 128 Credit Hours | Summer Training

Freshman Year

Semester 1

Course	Title	LT	LB	Cr
ECON 101	Principles of Microeconomics	3	0	3
ENGL 101	Intro. to Academic Discourse	3	0	3
IAS 111	Belief and its Consequences	2	0	2
ICS 104	Intro. to Programming in Python & C	2	3	3
MATH 101	Calculus I	4	0	4
PE 101	Health and Physical Education	0	2	1
Total		14	5	16

Semester 2

Course	Title	LT	LB	Cr
ACCT 110	Intro. to Financial Accounting	3	0	3
BUS 200	Business & Entrepreneurship	3	0	3
ECON 102	Principles of Macroeconomics	3	0	3
ENGL 102	Intro. to Report Writing	3	0	3
IAS 121	Language Foundation	2	0	2
MATH 102	Calculus II	4	0	4
Total		18	0	18

Sophomore Year

Semester 1

Course	Title	LT	LB	Cr
ACCT 210	Intro. to Managerial Accounting	3	0	3
BAI 220	Business Information Systems	2	2	3
ISE 291	Introduction to Data Science	3	0	3
ENGL 214	Academic & Professional Comm. Statistical Methods for Actuarial Science and Business	3	0	3
STAT 214		3	2	4
Total		14	4	16

Semester 2

Course	Title	LT	LB	Cr
BAI 221	Business Analytics Foundations	2	2	3
FIN 250	Financial Management	3	0	3
COE 292	Intro. to Artificial Intelligence	3	0	3
IAS 212	Professional Ethics	2	0	2
MKT 250	Principles of Marketing	3	0	3
OSC 210	Introduction to Operations and Supply Chain	3	0	3
Total		16	2	17

Junior Year

Semester 1

Course	Title	LT	LB	Cr
BAI 300	Applied AI for Business	3	0	3
BAI 311	Data Visualization & Storytelling	3	0	3
BAI 312	Business Intelligence Systems	3	0	3
GS XXX	GS Elective	3	0	3
MGT 310	Organization Behavior	3	0	3
Total		15	0	15

Semester 2

Course	Title	LT	LB	Cr
BAI 321	Performance Analytics with AI	3	0	3
BAI 331	Strategic Target Setting	3	0	3
BAI 332	Workforce Analytics & AI	3	0	3
CGS 392	Career Essentials	0	2	1
IAS 3/4xx	Islamic/Arabic Elective	2	0	2
MGT 311	Legal Environment	3	0	3
Total		15	2	15

BAI 399 - Summer Training (1Cr)

Senior Year

Semester 1

Course	Title	LT	LB	Cr
ACCT 410	Costing, Budgeting and Performance Analysis	3	0	3
XXX 3/4 xx	Business Elective 1	3	0	3
BAI 421	Responsible AI	3	0	3
BAI 411	Senior Project I	0	1	0
BAI 4xx	Major Elective 1	3	0	3
ICS474	Big Data Analytics	3	0	3
Total		15	1	15

Semester 2

Course	Title	LT	LB	Cr
XXX 3/4 xx	Business Elective 2	3	0	3
BAI 460	Case Studies in Business Analytics	3	0	3
BAI 412	Senior Project II	0	6	3
BAI 4xx	Major Elective 2	3	0	3
MGT 475	Business Strategy & Competitive Advantage	3	0	3
Total		12	6	15



128 CR

*Prerequisite course

Degree Plan

BS Business Analytics & Artificial Intelligence

 Four years | 127 Credit Hours | Internship

Freshman Year

Semester 1

Course	Title	LT	LB	Cr
ECON 101	Principles of Microeconomics	3	0	3
ENGL 101	Intro. to Academic Discourse	3	0	3
IAS 121	Language Foundation	2	0	2
ICS 104	Intro. to Programming in Python & C	2	3	3
MATH 101	Calculus I	4	0	4
PE 101	Health and Physical Education	0	2	1
Total		14	5	16

Semester 2

Course	Title	LT	LB	Cr
ACCT 110	Intro. to Financial Accounting	3	0	3
BUS 200	Business & Entrepreneurship	3	0	3
ECON 102	Principles of Macroeconomics	3	0	3
ENGL 102	Intro. to Report Writing	3	0	3
IAS 111	Beliefs and its Consequences	2	0	2
MATH 102	Calculus II	4	0	4
Total		18	0	18

Sophomore Year

Semester 1

Course	Title	LT	LB	Cr
ACCT 210	Intro. to Managerial Accounting	3	0	3
BAI 220	Business Information Systems	2	2	3
ISE 291	Introduction to Data Science	3	0	3
ENGL 214	Academic & Professional Comm.	3	0	3
STAT 214	Statistical Methods for Actuarial Science and Business	3	2	4
IAS 212	Professional Ethics	2	0	2
Total		16	4	18

Semester 2

Course	Title	LT	LB	Cr
BAI 221	Business Analytics Foundations	2	2	3
FIN 250	Financial Management	3	0	3
COE 292	Intro. to Artificial Intelligence	3	0	3
IAS 3/4xx	Islamic/Arabic Elective	2	0	2
MKT 250	Principles of Marketing	3	0	3
OSC 210	Introduction to Operations and Supply Chain	3	0	3
Total		16	2	17

Junior Year

Semester 1

Course	Title	LT	LB	Cr
BAI 300	Applied AI for Business	3	0	3
BAI 311	Data Visualization & Storytelling	3	0	3
BAI 312	Business Intelligence Systems	3	0	3
MGT 310	Organization Behavior	3	0	3
GS xxx	GS Elective	3	0	3
MGT 311	Legal Environment	3	0	3
Total		18	0	18

Semester 2

Course	Title	LT	LB	Cr
BAI 321	Performance Analytics with AI	3	0	3
BAI 331	Strategic Target Setting	3	0	3
BAI 332	Workforce Analytics & AI	3	0	3
BAI 4xx	Major Elective	3	0	3
XXX 3/4xx	Business Elective	3	0	3
CGS 392	Career Essentials	0	2	1
Total		15	2	16

Senior Year

Semester 1

Course	Title	LT	LB	Cr
BAI 398	Internship	0	0	6
BAI 411	Senior Project I	0	1	0
Total		0	1	6

Semester 2

Course	Title	LT	LB	Cr
BAI 412	Senior Project II	0	6	3
ACCT 410	Costing, Budgeting and Performance analysis	3	0	3
BAI 421	Responsible AI	3	0	3
BAI 460	Case Studies in Business Analytics	3	0	3
ICS 474	Big Data Analytics	3	0	3
MGT 475	Business Strategy & Competitive Advantage	3	0	3
Total		15	6	18



127 CR

*Prerequisite course

Flowcharts

BS Business Analytics & Artificial Intelligence (Summer training)

FRESHMAN		SOPHPMORE		JUNIOR		SUMMER	SENIOR	
First Sem.	Second Sem.	First Sem.	Second Sem.	First Sem.	Second Sem.		First Sem.	Second Sem.
ECON 101	ACCT 110	ACCT 210 Prereq:BUS200, ACCT110	BAI 221 Prereq:ISE 291	BIA 300 Prereq:COE292	BAI 331 Prereq:BAI221	BAI 399	ACCT 410 Prereq:ACCT210	BAI 460 Prereq:BAI 300 and BAI 331
ENGL 101	BUS 200	BAI 220 Prereq:ICS104	FIN 250 Prereq:ENGL102 ,BUS200	BAI 311 Prereq:BAI221	BAI 321 Prereq:BAI221		BAI 421 Prereq:BAI221	BAI 4xx Prereq:BAI221
IAS 121	ECON 102 Prereq:ECON101	ISE 291 Prereq:MATH102 And ICS 104	COE 292 Prereq:ISE291	BAI 312 Prereq:BAI221	BAI 332 Prereq:BAI221		ICS 474 Prereq:MATH101 ,STAT214	BIA 412 Prereq:BAI411
ICS 104	ENGL102 Prereq:ENGL101	ENGL214 Prereq:ENGL102	IAS 212	GS XXX	CGS 392 Prereq:ENGL214		BAI 4XX Prereq:BAI221	MGT 475 Prereq:MGT310, MKT250,FIN250
MATH 101	IAS 111	STAT 214 Prereq:MATH102	MKT 250 Prereq:ENGL102 ,BUS200	MGT 310 Prereq:BUS200,ENGL 102	MGT 311 Prereq:ECON101		BAI 411	XXX 3/4xxx 2
PE 101	MATH 102 Prereq:MATH101		OSC 210 Prereq:STAT214		IAS 3/4xx		XXX 3/4xxx 1	

BS Business Analytics & Artificial Intelligence (Internship)

FRESHMAN		SOPHPMORE		JUNIOR		SENIOR	
First Sem.	Second Sem.	First Sem.	Second Sem.	First Sem.	Second Sem.	First Sem.	Second Sem.
ECON 101	ACCT 110	ACCT 210 Prereq:ACCT110 ,BUS200	BAI 221 Prereq:ISE291	BAI 300 Prereq:COE292	XXX 3/4xxx	BAI 398	BAI 460 Prereq:BAI 300 and BAI 331
ENGL 101	BUS 200	BAI 220 Prereq:ICS104	FIN 250 Prereq:ACCT110 ,ECON102	BAI 311 Prereq:BAI221	BAI 321 Prereq:BAI221	BAI 411	BAI 421 Prereq:BAI221
IAS 121	ECON 102 Prereq:ECON101	ISE 291 Prereq:MATH102 ,ICS104	COE 292 Prereq:ISE291	BAI 312 Prereq:BAI221	BAI 331 Prereq:BAI221		ACCT 410 Prereq:ACCT210
ICS 104	ENGL 102 Prereq:ENGL101	ENGL 214 Prereq:ENGL102	MKT 250 Prereq:ENGL102 ,BUS200	GS XXX	BAI 332 Prereq:BAI221		MGT 475 Prereq:MGT310 ,MKT250,FIN25
MATH 101	IAS 111	IAS 212	OSC 210 Prereq:STAT214	MGT 310 Prereq:BUS200 ,ENGL102	BAI 4XX Prereq:BAI221		BAI 412 Prereq:BAI411
PE 101	MATH 102 Prereq:MATH101	STAT 214 Prereq:MATH102	IAS 3XX/4XX	MGT 311 Prereq:ECON101	CGS 392 Prereq:ENGL214		ICS 474 Prereq:MATH101 ,STAT214

Course Description

BS Business Analytics & Artificial Intelligence

Course	BAI 220: Business Information Systems	BAI 221: Business Analytics Foundations	BAI 300 : Applied AI for Business
Course Description	Fundamental concepts of business information and digital systems; business-driven AI; digital transformation; electronic business value; ethics and information security; infrastructures and platforms; business intelligence and KPIs; digital ecosystems; enterprise applications; systems development; and corporate responsibility. Laboratory work using Microsoft Excel includes KPI analysis, scenario modeling, dashboards, financial and ROI evaluation, data-driven decision support.	Business analytics workflow and decision framing; data preparation and feature engineering; exploratory data analysis for business intelligence and performance measurement; regression for prediction and explanation; uncertainty quantification and statistical inference; model selection, validation, and regularization; classification for business decisions including cost-sensitive evaluation and calibration; experiments and A/B testing design and analysis; introductory causal inference using matching and panel data; tree-based models and ensemble methods; factor models and text as data for business applications; reproducible analytics and professional reporting for managerial decision-making.	AI value creation in organizations; AI opportunities, limitations, and organizational readiness; generative AI in business and business intelligence contexts: capabilities and use case selection; work practices for task framing, prompting, evaluation, and verification; human oversight in algorithmic decision making; responsible AI: bias, fairness, transparency, explainability, and privacy; AI risk management and control mechanisms; AI governance and operating models; AI tools and platforms; alignment of AI, data, and business intelligence strategy; AI ecosystems and business models; business case development and value realization through KPIs, pilots, performance measurement, and decision support; road mapping and change management for AI adoption and scaling; operational and strategic recommendations
Pre-requisite	ICS 104	ISE291	COE292
Course	BAI 311: Data Visualization & Storytelling	BAI 312: Business Intelligence Systems	BAI 321: Performance Analytics with Artificial Intelligence
Course Description	Foundations of data visualization and visual cognition; principles of performance measurement , KPI design; balanced scorecards, target setting for organizational units; dashboard design for executive and managerial reporting; development of business intelligence dashboards; analytical storytelling; interpretation and communication of performance trends, target deviations, management insights; narrative design for decision support; governance and ethical communication of business intelligence outputs	Enterprise business intelligence architecture; SQL for enterprise data modeling and reporting; data warehousing concepts , star schema design; cloud data platforms for business intelligence; data transformation and modeling; dashboard and report development; business intelligence systems for performance measurement and performance management; target setting and target cascading in enterprise settings; integration of budgeting, forecasting, incentives, management control into business intelligence systems; governance of organizational reporting and decision-support platforms..	Advanced analytics workflow and reproducibility for performance measurement in business contexts; feature engineering for organizational data; model validation, resampling, and business-oriented evaluation; predictive and diagnostic models for performance analysis; classification and rare-event analytics for management decisions; anomaly detection for operational and financial monitoring; segmentation and clustering for managerial insight; selected machine learning methods for business intelligence and decision support; interpretation, transparency, and responsible AI practices in measuring performance, evaluating initiatives, supporting evidence-based business decision-making
Pre-requisite	BAI 221	BAI221	BAI 221



Course Description

BS Business Analytics & Artificial Intelligence

Course	BAI 331: Strategic Target Setting	BAI 332: Workforce Analytics and Artificial Intelligence	BAI 411: Senior Project I
Course Description	Concepts and systems of target setting and performance management in organizations; alignment of strategy, budgets, KPIs, and operational targets; performance measurement frameworks including balanced scorecard, target cascading, and management-by-objectives; planning and budgeting links to performance management systems; analytical review of target achievement, variances, and corrective actions; implementation of analytics initiatives for performance improvement; project planning, stakeholder management, governance, and risk in performance-oriented analytics programs; ROI evaluation and value realization for business analytics and AI initiatives	Introduction to workforce performance analytics in organizations; workforce data architecture and HR information systems; employee performance measurement and KPI design; target setting for workforce productivity, retention, and development; compensation, incentives, and performance management analytics; workforce planning and budgeting analytics; predictive models for workforce risk and talent outcomes; statistical and analytical methods for workforce decision making; interpretation of workforce dashboards and management reports; ethical governance of workforce data and analytics.	The first phase of the senior project sequence for Business Analytics & Artificial Intelligence majors. Students form teams and develop comprehensive project proposals addressing real organizational challenges related to business analytics, business intelligence, performance management, artificial intelligence, governance, and data-driven decision support. Working with faculty advisors and industry stakeholders, students define project scope, identify analytical and organizational requirements, conduct preliminary research and feasibility analysis, and establish implementation and governance plans. The course emphasizes project planning, stakeholder engagement, ethical considerations, teamwork, and professional communication
Pre-requisite	BAI 221	BAI 221	Senior standing
Course	BAI 412: Senior Project II	BAI 421: Responsible AI	BAI 460: Case studies in Business Analytics
Course Description	The second phase of the senior project sequence for Business Analytics & Artificial Intelligence majors. Students implement and complete applied analytics or AI projects addressing real organizational challenges in business intelligence, performance analytics, governance, decision support, and digital transformation. Through iterative analysis, modeling, dashboard development, AI-enabled evaluation, stakeholder engagement, and performance assessment, teams produce evidence-based recommendations and organizationally feasible solutions. The course emphasizes analytical integration, professional communication, governance awareness, teamwork, ethical reasoning, and project delivery.	Principles and practices of responsible AI in organizational decision-support systems; governance, accountability, human oversight in AI-enabled managerial decision-making; explainability, transparency, fairness, robustness, privacy, compliance in business contexts; evaluation and monitoring of AI-supported reporting, forecasting, and performance analysis; risks of algorithmic bias in budgeting, target setting, performance management; responsible use of AI in business intelligence and decision-support applications.	Integrative case-based analysis of contemporary business analytics and artificial intelligence applications in organizations; business intelligence and dashboard-based decision support; performance measurement and KPI analysis; target setting and performance management; budgeting and resource allocation; analytics for workforce, process, risk, and platform performance; responsible AI and governance in managerial decision-making; case analysis, articles, and applied exercises to practice structured diagnosis, evidence-based recommendations, executive communication, and ethical judgment in complex real-world business settings.
Pre-requisite	BAI 411	BAI221	BAI 300 and BAI 331

Career Prospects

BS Business Analytics & Artificial Intelligence



Corporate Planning Analyst

Supports strategic planning, forecasting, budgeting, and performance tracking across the organization

Performance Management Analyst

Monitors KPIs, evaluates business performance, and supports target setting and performance improvement.

Business Intelligence Analyst

Develops dashboards, reports, and insights that support data-driven managerial decision-making.

KPI & Performance Reporting Analyst

Designs performance reports, tracks target achievement, and supports accountability across business units.

AI Implementation Analyst

Supports the deployment of AI-enabled solutions and helps integrate them into business operations and decision processes.

Consulting analyst

Analyzes business problems, develops insights, and supports data-driven recommendations for clients or internal stakeholders.

Business Performance Analyst

Monitors organizational performance, analyzes KPIs and variances, and provides insights to improve planning, budgeting, and decision-making across business functions.

Thank you

