College of Business Administration

Course Descriptions

Bachelor of Business Administration in Business Information Systems

September 2023

COURSE DESCRIPTIONS

BIS 310 Introduction to Software Engineering

Core Course

Course Description	Course Objectives
This course provides students with an overview of the fundamental knowledge and skills required to code applications and software development. The goal of this course is to provide a theoretical and practical foundation for understanding the basic concepts of software development and programming. It aims to establish a foundational understanding of program design, coding, the implementation of algorithms code hosting on GitHub to solve problems ranging from simple to complex.	Objective of the course is to provide students with a foundational understanding of software development and programming, encompassing program design, coding, algorithm implementation, and code hosting on GitHub, enabling them to solve a wide range of problems, from simple to complex.

BIS 334 Enterprise Resource Planning

Core Course

Course Description	Course Objectives
This course offers an in-depth examination of the essential field of Enterprise Resource Planning (ERP). It offers a thorough and comprehensive exploration of ERP systems and their central role in optimizing business operations and elevating organizational effectiveness. Throughout this course, students will delve into key subjects such as ERP modules, seamless data integration, detailed business process mapping, and the art of change management within the context of ERP implementation. Moreover, students will gain insights into practical applications through engaging case studies, providing a holistic understanding of how ERP systems are successfully deployed in real-world business settings.	Objective of the course is to equip students with the knowledge and skills needed to proficiently design and manage ERP modules, integrate data seamlessly, optimize business processes, and master change management within ERP adoption, and fostering enhanced organizational efficiency.

BIS 375 Information Security in E-Business Elective	
Course Description	**Course Objectives**
This course titled provides students with a deep understanding of foundational information security concepts such as confidentiality, integrity, and availability, along with practical applications including authentication, authorization, access control, and email phishing detection and prevention. Students explore multifactor authentication, legal and regulatory frameworks, operational security, network design, operating system security, and vulnerability testing techniques. The course also delves into cyber risk management from a business perspective, emphasizing the strategic importance of cybersecurity in E-Business and addressing emerging concerns such as ransomware, cloud computing, and the Internet of Things.	Objective of the course is to equip students with the knowledge and skills to identify, assess, and mitigate cybersecurity and information security vulnerabilities in E-Business environments, ensuring the protection of digital assets and the maintenance of data integrity and customer trust.

BIS 379 Digital Entrepreneurship Elective	
Course Description	**Course Objectives**
In today's rapidly evolving digital world, opportunities and challenges abound for aspiring entrepreneurs. This course in digital entrepreneurship will equip students with the knowledge and practical skills needed to thrive in the digital landscape. This course provides a journey from ideation to the launch of a digital business venture. By the end of this course, students will have not only gained the knowledge and skills required to start and manage a successful digital business but also developed a strategic mindset to adapt to the ever-changing digital landscape.	Objective of the course is to equip students with the essential knowledge and practical skills to conceptualize, launch, and manage successful digital business ventures in the dynamic digital entrepreneurship landscape.

BIS 394 Technology Project Management Core Course	
Course Description	**Course Objectives**
The course is designed to equip students with the fundamental skills and knowledge required to proficiently plan, execute, and govern technology-driven projects within the dynamic realm of Information Technology (IT). In this course, students will delve into the principles and practices of project management and governance tailored specifically to the IT sector.	Objective of the course is to equip students with the understanding of the strategic significance of project management and governance within the context of Information Technology (IT), and recognizing its profound impact on business growth. Students will learn how to skillfully apply Jira, a project management tool, along with governance principles and methodologies, to plan, execute, and monitor technology projects, ensuring alignment with organizational goals, strategies, and compliance requirements. Upon completion of the course students will be able to evaluate potential risks and challenges inherent to technology and BIS projects and develop robust strategies for risk mitigation and contingency planning to ensure project resilience within governance guidelines.

BIS 402 Enterprise Cloud Computing Core Course	
Course Description	**Course Objectives**
Cloud computing is a critical component of modern business enterprises; it has transformed the way networking, data storage and processing, enterprise application development, and infrastructure provisioning are accomplished. In this course, we delve into the fundamental concepts of core cloud services, architecture, and cloud support, and then provide hands-on learning. This course introduces various cloud options such as AWS, Azure, and Alibaba Cloud to examine the various services available for accessing databases in the cloud. It also provides an understanding of virtualization concepts and exposure to different virtualization solutions, as well as security challenges related to the cloud. Additionally, it introduces resources and capacity monitoring and teaches how to respond to problems to optimize both performance and cost efficiency.	Objective of the course is to equip students with a comprehensive conceptual and practical understanding of cloud computing's significant role in modern business operations, taking into consideration core cloud services, architecture, and cloud support, and providing them with hands-on experience with platforms such as AWS, Azure, and Alibaba Cloud for accessing cloud databases.

BIS 406 Mobile Apps Development for Enterprise Core Course	
Course Description	**Course Objectives**
This course provides a comprehensive exploration of "Mobile Apps Development for Enterprise," shedding light on the pivotal role mobile applications play in driving business innovation and addressing the unique challenges faced by enterprise IT. Throughout the course, students will gain a comprehensive understanding of how the enterprise mobile app lifecycle compares and contrasts with conventional development practices. Delve deep into the art of designing mobile business apps that not only meet strategic objectives but also delight users. Explore a variety of mobile development techniques, programming languages, and architectural approaches to create robust and scalable enterprise mobile apps. Master the optimization of crucial linkages between mobile front-ends and enterprise back-end systems and navigate the complexities of testing in ever-changing device environments. Additionally, discover the power of implementing DevOps principles to accelerate the entire app development lifecycle, from ideation to rapid delivery, enhancing overall value.	Objective of the course is to equip students with the knowledge and skills to excel in enterprise mobile app development, fostering innovation, user-centric design, and seamless integration within a dynamic business environment.

BIS 407 E-Commerce Applications (Web & Mobile) Core Course	
Course Description	**Course Objectives**
This course provides a comprehensive introduction and hands-on experience in modern e-commerce UI/UX design, secure payment gateways, and web and mobile commerce applications. It explores a wide spectrum of technologies, open-source tools, protocols, and techniques essential for crafting thriving e-commerce websites and mobile applications. Commencing with an overview of mobile and web e-commerce, it swiftly progresses to explain security and the utilization of cutting-edge technologies to build web and mobile apps, whether custom or through open-source systems. Grounding this technical expertise within a	Objective of the course is to equip students with a comprehensive understanding and hands-on over modern e-commerce, focusing on UI/UX design, secure payment gateways, and web and mobile commerce applications.

business framework, the course guides students through tangible e-commerce applications, spanning UI/UX design, secure payment gateways for checkouts, as well as data capture to gain meaningful insights into users and visitors.	

BIS 410 Business Intelligence: Machine Learning Applications Core Course	
Course Description	**Course Objectives**
The course provides a strong foundation in both Business Intelligence (BI) and Machine Learning (ML) concepts and tools. Throughout this course, students will gain essential knowledge and practical skills to harness data for informed decision-making, data visualization, and predictive analytics using ML models.	Objective of the course is to provide students with an understanding of the fundamental concepts of Business Intelligence (BI) and Machine Learning (ML). Students will be able to understand key differences between supervised and unsupervised ML methods, and analytics techniques, including statistics, data warehousing, regression analysis, and tools like Knime, Rapid Miner, Tableau and Power BI. In an applied way, students will use ML models and analytics tools (e.g., Power BI, Tableau, Rapid Miner, Knime, Weka, Microsoft Fabric) to design and develop solutions for real-world business problems, and analyze and interpret data using ML models, BI tools, and advanced analytics techniques to draw meaningful insights for business growth and decision-making.

BIS 411: Business Intelligence II: Artificial Intelligence Core Course	
Course Description	**Course Objectives**
This course enables students to leverage Business Intelligence (BI) for corporate growth, increased efficiency, and enhanced decision-making. This hands-on course, enriched with practical examples explores the dynamic intersection of AI and BI. Students will delve into AI's most pertinent applications in BI, such as advanced forecasting, automated classification, and AI-driven recommendations. Moreover, they will master the art of extracting actionable insights from unstructured data sources, including text, documents, and image files.	Objective of the course is to make students understand the fundamental concepts of Artificial Intelligence in Business Intelligence (BI) and its applications in corporate growth, efficiency, and decision-making, and to provide them with knowledge of key AI concepts and their relevance in the BI landscape. Students will analyze data using AI models to derive meaningful insights that contribute to informed business decisions and evaluate the effectiveness and efficiency of AI-driven analytics solutions in improving sustainable business growth.

BIS 420 IT Infrastructure and Networking Elective	
Course Description	**Course Objectives**
The course explores the foundations of IT infrastructure and networking. Specifically, it covers network topologies, hardware components, protocols, and services, as well as essential concepts like TCP/IP, IPv4, IPv6, and DNS. Students will gain valuable insights into network security and management, setting the stage for a successful career in the IT industry. Also, this course provides network security principles with a focus on industry-leading solutions like Fortinet, Palo Alto Networks, and Checkpoint.	Objective of the course is to equip students with a strong foundation in IT infrastructure and networking, integrating industry-standard security solutions. Students will understand networking fundamentals to assess the difference between Internet, Intranet, and Extranet and basic security features including firewalls, DMZ, VPNs, and Microsoft security zones. Students will also understand Local Area Networks (LANs) and Wide Area Networks (WANs) and components fundaments and their importance while recognize various network topologies and their characteristics. In an applied way, students will develop the ability to differentiate between various network hardware components, including switches, routers, and cables and able to configure network devices from Fortinet, Palo Alto Networks, and Check Point, and be able to analyze OSI model layers and their functions in network communication to evaluate the role of TCP/IP in modern networking.

BIS 430 IT Product Management Elective	
Course Description	**Course Objectives**
This comprehensive course offers a holistic 360-degree understanding of user experience (UX) design, equipping individuals with the skills to create exceptional products tailored to user needs and market demands. Throughout this journey, students will delve into fundamental UX principles and gain hands-on experience in crafting user interfaces (UI) for web and mobile. Beyond technical and design proficiency, this course places a strong emphasis on mastering the interpersonal aspects of the role. As UX professionals, student will often find themselves in a pivotal position, bridging the gap between engineering, marketing, and various cross-functional teams. This course will empower them with the essential business acumen and soft skills required for effective IT product management. By completing this course, individuals will emerge as part of a select group of technically capable IT product managers who possess the unique ability to seamlessly connect with. Their expertise will extend beyond designing user-friendly products; they'll also excel in the art of collaboration and communication, making them invaluable assets to any organization.	Objective of the course is to provide a comprehensive understanding of IT product management skills, enabling students to create user-friendly, market-fit products, and collaborate effectively across teams.

BIS 440 Advanced Tech Stack Elective	
Course Description	**Course Objectives**
Choosing the right technology stack can affect development time, cost, application quality, and scalability, which is why it's important to make the right decision, even if it needs to spend more time analyzing the pros and cons of the available solutions. This course provides students with a higher level of conceptual and practical understanding of various technology stacks used to develop enterprise solutions, whether on desktop, web, mobile, or the cloud side, to meet diverse business requirements in an ever-changing technological landscape. It covers all the highly sought-after technology stacks that businesses are	Objective of the course is to enable students to acquire dynamic skill sets and the ability to rationalize the choice of ever-changing advanced technology stacks that enable businesses to meet their evolving technology needs and make informed decisions.

actively seeking to address their challenges. Furthermore, this course prepares students to effectively respond to inquiries from business leaders during the digital transformation process for their organizations, helping them determine which technology stack should be adopted and providing strong, rational, and logical reasoning to support their decisions.	

BIS 450 Software Application Design & Implementation (Capstone) Core Course	
Course Description	**Course Objectives**
Software Application Design & Implementation is the capstone project at the end of the degree program. In this course, students are required to work individually or in small teams to integrate, apply, and demonstrate the skills and knowledge they have acquired throughout the degree program to address a real-world industry problem. The capstone project consists of two phases. In Phase 1, students undertake a detailed requirements analysis and propose a preliminary design that is validated through a feasibility analysis. Students then develop an implementation plan that they will execute in Phase 2 of the capstone project.	Objective of the course is to enable students to apply their acquired skills and knowledge from BBIS degree program to address real-world industry problems through a comprehensive software application design and implementation project.

PLO-CLO MAP BY COURSE

BIS 310 Introduction to Software Engineering									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	1								
K2		2							
S1					3				
S2					3				
C1						6			
C2							5	5	
C3									6

BIS 334 Enterprise Resource Planning									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	2	2							
K2			2						
S1				3					
S2					4				
C1						5			
C2								6	
C3									6

BIS 375 Information Security in E-Business									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	2		2						
K2		1							
S1					3				
S2				4					
C1						5			
C2							5	6	
C3									6

BIS 379 Digital Entrepreneurship									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	2		2						
K2		1							
S1					3				
S2				4					
C1						5			
C2								5	
C3									6

BIS 394 Technology Project Management									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	1		2						
K2		2							
S1					3				
S2					3				
C1						5			
C2							4	6	
C3									6

BIS 402 Enterprise Cloud Computing									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1		2							
K2			1						
S1					3				
S2				4					
C1						6			
C2						4			
C3									5

BIS 406 Mobile Apps Development for Enterprise									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	2								
K2		1	2						
S1					3				
S2				4					
C1						5			
C2							5		
C3									6

BIS 407 E-Commerce Applications (Web & Mobile)									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	2		2						
K2		1							
S1					3				
S2				4					
C1						5			
C2							6		
C3									6

BIS 410 Business Intelligence I: Machine Learning Applications									
	A1	A2	A3	B1	B2	C1	C21	C22	C3

K1	2		2						
K2		2							
S1				3	3				
S2					4				
C1						5			
C2							5	6	
C3									6

BIS 411 Business Intelligence II: Artificial Intelligence									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	2		2						
K2		1							
S1					3				
S2				4					
C1						5			
C2							5	6	
C3									6

BIS 420 IT Infrastructure and Networking									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	1		2						
K2		2							
S1					3				
S2				4					
C1						6			
C2							6		
C3									6

BIS 430 IT Product Management									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	1								
K2		2	2						
S1					3				
S2				4		4			
C1							5		
C2								6	
C3									6

BIS 440 Advanced Tech Stack									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	1		2						
K2		2							
S1					3				

S2				4					
C1							5	5	
C2						6			
C3									6

BIS 450 Software Application Design & Implementation (Capstone)									
	A1	A2	A3	B1	B2	C1	C21	C22	C3
K1	1		1						
K2		2			3				
S1									
S2				4					
C1						5			
C2							5		
C3								6	6