

MASTER OF SCIENCE IN INNOVATION MANAGEMENT

College of Education, Administrative & Technical Studies | Business Administration Department

The Master of Science in Innovation Management prepares qualified professionals and future leaders with advanced knowledge and practical competencies in innovation management. The program integrates innovation, entrepreneurship, emerging technologies, and research methods to support sustainable organizational growth and competitiveness.

The program offers three specialization tracks: Business Management, Engineering Management, and Information Systems. Students complete the Foundation and Core Courses before selecting their preferred track, allowing them to develop focused expertise aligned with their career aspirations and organizational needs.

1. Program Tracks Overview

Track	Focus Area	Starting Page
BUSINESS MANAGEMENT	Focuses on business innovation, entrepreneurship, innovation strategy, and sustainable business development.	Page 3
INFORMATION SYSTEMS	Focuses on digital innovation, data analytics, emerging technologies, and digital transformation.	Page 4
ENGINEERING MANAGEMENT	Focuses on technological innovation, emerging technologies, and technology-driven transformation.	Page 4

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College of Education, Administrative & Technical Studies | Department of Business Administration.

1. Program Tracks Overview

The Master of Science in Innovation Management consists of 38 credit hours, including 21 credit hours of core courses, 9 credit hours of elective courses, and 8 credit hours for the master's Thesis. The program is completed over a minimum of four semesters (two years) of full-time study.

The program offers three specialization tracks: Business Administration, Information Systems, and Engineering Management. Students select three elective courses totaling 9 credit hours, with at least two courses selected from the courses offered within their chosen specialization track, in consultation with their academic advisor.

2. Study Plan

Course Code	Course Title	Credit Hours
Semester 1		
INNM601	ENTREPRENEURSHIP	3
INNM602	EMERGING TECHNOLOGIES & INNOVATION	3
INNM603	INTRODUCTION TO THE ECONOMICS OF INNOVATION	3
INNM604	INNOVATION THEORIES AND POLICY	3
INNM605	RESEARCH METHODS	3
Total Credit Hours		15
Semester 2		
INNM611	DATA ANALYTICS FOR INNOVATION	3
INNM612	DESIGN THINKING AND INNOVATION	3
INNM***	ELECTIVE COURSE (I)	3
INNM***	ELECTIVE COURSE (II)	3
INNM***	ELECTIVE COURSE (III)	2

Course Code	Course Title	Credit Hours
Total Credit Hours		15
Semester 3 & 4		
INNM699	Thesis	8
Total Credit Hours		8
Total Programme Credit Hours		38

ELECTIVE COURSES

STUDENTS MUST SELECT AT LEAST TWO ELECTIVES THAT ARE UNIQUE TO THEIR CHOSEN TRACK (I.E., NOT SHARED WITH OTHER TRACKS).

BUSINESS MANAGEMENT TRACK

Course Code	Course Title	Credit Hours
BUSINESS MANAGEMENT TRACK		
INNM621	SPECIAL TOPICS IN BUSINESS MANAGEMENT	3
INNM622	SERVICE INNOVATION	3
INNM623	BUSINESS MODEL INNOVATION	3
INNM624*	ARTIFICIAL INTELLIGENCE IN INNOVATION MANAGEMENT	3
INNM625	PUBLIC SECTOR INNOVATION	3
INNM626	LEADERSHIP & INNOVATION	3
INNM627	MARKETING INNOVATION	3
INNM628*	DIGITAL TRANSFORMATION AND INNOVATION	3
INNM629	STRATEGIC MANAGEMENT OF INNOVATION	3

*SHARED ELECTIVES ON MULTIPLE TRACKS

INFORMATION SYSTEMS TRACK

Course Code	Course Title	Credit Hours
INFORMATION SYSTEMS TRACK		
INNM624*	ARTIFICIAL INTELLIGENCE IN INNOVATION MANAGEMENT	3
INNM628*	DIGITAL TRANSFORMATION AND INNOVATION	3
INNM631	SPECIAL TOPICS IN INFORMATION SYSTEMS	3
INNM632	SOCIAL MEDIA INNOVATION	3
INNM633	E- BUSINESS	3
INNM634	DATABASE MANAGEMENT SYSTEMS	3
INNM635	TECHNOLOGY & INNOVATION STRATEGY	3
INNM636	CYBERSECURITY FOUNDATIONS FOR INFORMATION SYSTEMS	3
INNM637	TECHNOLOGY TRANSFER AND INNOVATION	3

*SHARED ELECTIVES ON MULTIPLE TRACKS

ENGINEERING MANAGEMENT TRACK

Course Code	Course Title	Credit Hours
ENGINEERING MANAGEMENT TRACK		
INNM624*	ARTIFICIAL INTELLIGENCE IN INNOVATION MANAGEMENT	3
INNM628*	DIGITAL TRANSFORMATION AND INNOVATION	3
INNM641	SPECIAL TOPICS IN ENGINEERING MANAGEMENT	3
INNM642	OPERATIONS MANAGEMENT	3
INNM643	PRODUCT LIFE CYCLE MANAGEMENT AND INNOVATION	3
INNM644	INTRODUCTION TO MODELING AND SIMULATION	3
INNM645	NEW PRODUCT DEVELOPMENT & COMMERCIALIZATION	3
INNM646	INDUSTRIAL SUSTAINABILITY AND CIRCULAR ECONOMY	3

*SHARED ELECTIVES ON MULTIPLE TRACKS

3. Course Descriptions

INN601— ENTREPRENEURSHIP (3 CH)

This course assesses key models, theories, and concepts in digital entrepreneurship. It explores how entrepreneurs use AI and other digital technologies to address new opportunities and design new business models. Key topics include opportunity recognition, lean startup methodology, business model generation, sustainable entrepreneurship, social innovation, and entrepreneurial finance. It addresses how to identify target audiences, analyze customer feedback, and develop innovative strategies to create value, measuring entrepreneurial capability and metrics. Case studies include assessing growth mindset, teamwork, culture, and outcomes. Critical reviews on the impact of artificial intelligence on digital business models in the GCC context. This course also covers family business entrepreneurship, including succession, governance, and digital transformation in family owned GCC enterprises. Students will develop a commercialization plan for a technology-based venture, addressing target audiences, customer feedback, and value creation strategies in the GCC context.

INN602— EMERGING TECHNOLOGIES AND INNOVATION (3 CH)

This course aims to provide students with a foundational understanding of key emerging technologies and practical applications in GCC, including Artificial Intelligence, Machine Learning, Deep Learning, Reinforcement Learning, Blockchain, the Internet of Things, Quantum technologies, and sustainable technology adoption, and how these technologies revolutionize business models, optimize operations, and create new opportunities. In addition to theoretical knowledge, students will engage in practical applications, case studies, and hands-on projects to develop real-world skills and insights relevant to modern business environments. By the end of this course, the successful graduate student should be able to distinguish among the different innovation types, characteristics, and processes; and apply tools in innovation contexts in the GCC. Students will produce a technology adoption roadmap analyzing the innovation potential and implementation strategy for an emerging technology within a specific GCC industry sector.

INN603— Introduction of Economics of Innovation (3 CH)

This course explores the role of economic principles in technological innovation, business, and society. Students will analyze the competition among technology-based firms, the impact of governments' innovation policies on economic growth, and the role of technology diffusion. It emphasizes applied economic analysis for GCC markets, focusing on practical case applications and industry-relevant decision-making. Core topics include innovation and economic growth, technology diffusion, R&D investment and productivity, network effects, platform economics, intellectual property economics, and digital transformation economics. Students will conduct an innovation audit or economic analysis of a technology-based firm or innovation policy in the GCC, applying economic principles to real-world cases.

INN604— INNOVATION THEORIES AND POLICY (3 CH)

This course introduces innovation systems and innovation policy from a systems perspective, covering national, sectoral, and technological innovation systems, including intellectual property frameworks and their role in innovation policy, with a particular focus on GCC countries. Through regional and international

case studies across high- and low-resource contexts, the course examines how innovation policy, institutions, and governance frameworks shape technological change, economic diversification, structural transformation, and sustainable development. Core topics include national, sectoral, and technological innovation systems, intellectual property frameworks, innovation policy instruments, foresight and scenario analysis, and GCC innovation ecosystems. Students develop the knowledge and analytical skills required to critically assess innovation policies, configurations of innovation systems across industrial sectors, and innovative performance. Students will produce a policy brief addressing a current innovation policy challenge in the GCC, applying foresight and scenario analysis tools introduced in the course.

INN605— RESEARCH METHODS (3 CH)

This course establishes foundational research methodologies for applied innovation management research, emphasizing practical research design, data collection, and reporting skills. This course is designed to help students identify, define, and formulate a research problem, objectives, and methodology. It establishes the foundations of research methodologies, with emphasis on the planning and procedures of empirical research in interdisciplinary fields. It discusses the various aspects of research, including problem selection, problem definition, research objectives, research strategies, research methodology, data collection & analysis, verification, evaluation, reporting, and presentation of research results. Students are expected to prepare a review paper on a subject related to Innovation Management and prepare scientific reports and a presentation of a research proposal and literature review. Students will complete a research proposal and literature review on a topic related to Innovation Management, demonstrating methodological rigor and research design skills.

INN611— DATA ANALYTICS FOR INNOVATION (3 CH)

This course provides students with a comprehensive introduction to data analytics for innovation, focusing on data visualization, exploratory analysis, and the creation of interactive dashboards. Students will learn to prepare, process, and analyze data using visual analytics techniques to uncover patterns, trends, and relationships in the dataset. Through hands-on exercises and real-world projects, students will develop the ability to translate complex data into actionable insights that support strategic decision-making. The course improves the decision-making skills of the students to facilitate their application of best practices in data storytelling, dashboard design, and interactive reporting using calculated fields. Students will create an interactive dashboard or data visualization report that translates complex data into actionable insights for strategic decision-making.

INN612— DESIGN THINKING AND INNOVATION (3 CH)

This course aims to present frameworks, theory, and process of design thinking. The course covers the methods designers use to generate and refine creative ideas. Students will be able to understand and apply contemporary work and basic theories, analyze ideas to produce creative solutions, and develop effective, sustainable solutions to real-world problems. The topics include design thinking frameworks (empathy, ideation, prototyping, testing), user-centered design, creative problem-solving, and sustainable design solutions. Students will experience problem-based learning, design sprints, user research and testing, and iterative prototyping workshops. Students will develop a prototype or design solution addressing a real-world problem using design thinking methodologies.

- **ELECTIVE COURSES:**

COURSES THAT ARE SHARED IN MSC TRACKS:

TRACKS (BUSINESS MANAGEMENT / INFORMATION SYSTEMS/ ENGINEERING MANAGEMENT):

INN624* — ARTIFICIAL INTELLIGENCE IN INNOVATION MANAGEMENT (3 CH)

This course familiarizes students with the foundational concepts of Artificial Intelligence (AI) and Machine Learning (ML) in innovation management. Students will apply various AI techniques, including supervised and unsupervised learning, data preprocessing, model evaluation, and visualization techniques. They will use AI models to address real-world business and innovation challenges through hands-on exercises. The course also discusses AI ethical considerations and the role of AI in transforming industries such as healthcare, finance, retail, and technology.

INN628* — DIGITAL TRANSFORMATION AND INNOVATION (3 CH)

This course focuses on the intersection of digital transformation and innovation, preparing students to lead initiatives that create value in organizations across the Gulf Cooperation Council (GCC) region. Students will examine how emerging technologies, such as AI, IoT, cloud computing, and big data, enable new business models, enhance operational efficiency, and drive innovation across the public and private sectors in the GCC.

The course combines theoretical frameworks with practical applications, including case studies, industry projects, and regional examples, highlighting successful digital strategies in GCC countries. Students will develop skills to identify innovation opportunities, design user-centered digital solutions, and implement digital transformation strategies that address the unique economic, cultural, and technological contexts of the GCC. By the end of the course, graduates will be able to foster a culture of innovation, guide digital initiatives, and create a competitive advantage in a rapidly evolving regional digital landscape.

TRACKS (BUSINESS MANAGEMENT):

INN621— SPECIAL TOPICS IN BUSINESS MANAGEMENT (3 CH)

This course provides an advanced, critical examination of contemporary and emerging issues at the intersection of business, innovation, and technology, with a particular focus on GCC countries. The course content varies by semester, allowing exploration of evolving innovation trends, digital transformation strategies, and artificial intelligence (AI) applications in business.

Topics include technology-driven innovation, digital business models, AI-enabled decision-making, data analytics, innovation ecosystems, human capital for innovation, and organizational change management. Through GCC-focused case studies and applied analysis, students develop skills to critically assess innovation policies, design technology-driven strategies, and implement digital and AI-enabled solutions that enhance competitiveness and support national innovation agendas.

INN622— SERVICE INNOVATION (3 CH)

This course has been designed to provide students with the skills required to comprehend, create, and analyze service innovation. The course will introduce students to services and service innovation, focusing

on understanding the various types of services, their contexts, and the factors that underpin service innovation. The course discusses several strategies to seize service innovation opportunities as well as assess their potential application and impact. The course will cover a range of topics, such as organizational culture, the role of technology in service innovation, the service development process, customer service delivery, and relevant case studies. The course will expose the students to different service delivery models, including the use of digital networks and channels.

INN623— BUSINESS MODEL INNOVATION (3 CH)

This course provides an overview of the rationale and drivers of business model innovation (BMI), including the enablers and conditions for creating and capturing value. The students will explore how BMI impacts organizational structures, strategies, activities, and value propositions to ensure business sustainability. Key topics include the design of business models, the value proposition, the BMI process, business strategy, and IP considerations in business models. Case studies on best practices in BMI, frugal innovation, digital platforms, financial models in BMI, and disruptive innovation and AI in BMI.

INN625— PUBLIC SECTOR INNOVATION (3 CH)

This course introduces models, drivers, and enablers for public sector innovation. It analyzes innovative culture, structure, mindset, and performance of the public sector to induce integral innovation. Topics include frameworks for public sector innovation, innovation policies, AI-driven innovation, human resources and innovation, and innovation practices in the public sector. Case studies exploring ICT-driven innovation, data-driven innovation, frugal innovation, and digital innovation in the public domain. Students will explore topics such as AI-governance, open government, agile e-government, participatory governance, and innovation in public policy.

INN626— LEADERSHIP & INNOVATION (3 CH)

This course provides an in-depth examination of the context of digital leadership in the digital economy. The students will explore how leadership impacts organizational culture, structure, and strategies. Key topics include leadership theories and models. Case studies in digital leadership and change management, including insights into AI and machine learning, emerging technologies, and legal and ethical issues in emerging technologies. Students are expected to assess the readiness and maturity of digital leadership in the GCC context.

INN627— MARKETING INNOVATION (3 CH)

The course provides an overview of the scope of the marketing function and its role in the innovation process. The course covers new product development processes, product innovation strategy, opportunity identification and idea generation, the fuzzy front end, concept testing, estimating sales potential, a proactive new product development process, and product/market testing. Students are expected to apply knowledge of new product/service development processes and digital technology to formulate strategic, operational, and tactical product/service innovation decisions.

INN629— STRATEGIC MANAGEMENT OF INNOVATION (3 CH)

This course provides an advanced study of strategic management with emphasis on innovation, technology, and digital transformation in the context of GCC countries. It covers the principles, policies,

and procedures of strategic management and intellectual property strategy in innovation management, and develops skills in strategic analysis, strategy formulation, and performance evaluation.

Students learn to integrate technology, AI, and innovation into strategy-making using GCC-focused and international case studies. The course equips students to design technology-driven strategies, evaluate organizational performance, and support national innovation agendas, while fostering teamwork, collaboration, and evidence-based decision-making.

ELECTIVE COURSES – INFORMATION SYSTEMS TRACK:

INN631— SPECIAL TOPICS IN INFORMATION SYSTEMS (3 CH)

This course provides an in-depth study of emerging and advanced topics in information systems (IS), with a focus on their applications in innovation, digital transformation, and organizational competitiveness. The course is designed to respond rapidly to current trends, with content updated in each offering to reflect state-of-the-art developments in IS/IT. Topics may include cloud computing, data security, artificial intelligence, enterprise systems, e-government, intellectual property, and other contemporary technologies with strategic relevance.

Students will engage in critical analysis, research, and project-based learning, developing practical and scholarly outputs on selected topics. The course enables students to explore cutting-edge developments, assess their implications for IS design and deployment, and understand how organizations—particularly in the GCC region—can leverage emerging technologies to drive innovation, enhance digital capabilities, and create competitive advantage.

INN632 —SOCIAL MEDIA INNOVATION (3 CH)

This course explores the dynamic role of social media in driving innovation and engagement in today's digital landscape. It examines the latest trends in social media platforms, content-creation strategies, and the impact of social media on brand loyalty and consumer Behavior. The course covers techniques for leveraging social media analytics to inform decision-making and enhance marketing strategies.

Students will analyse case studies of successful social media campaigns that demonstrate innovation and effectiveness. Students will be able to design and implement innovative social media strategies, evaluate the effectiveness of various social media tools, and adapt content to engage diverse audiences effectively.

INN633— E-BUSINESS (3 CH)

This course introduces students to E-Business concepts and technologies, emphasizing their strategic and managerial implications in GCC organizations. It covers Internet-based business models, electronic payment systems, digital platforms, mobile commerce, website design and management, security, and emerging technologies supporting digital business.

Students develop skills in strategic planning, managerial decision-making, and business model innovation for the digital economy. Using GCC-focused and international case studies, the course explores how technology, market trends, and social factors shape E-Business strategy, operations, and competitive advantage. Students gain practical experience in designing, implementing, and managing e-commerce initiatives aligned with regional business and innovation priorities.

INN634— DATABASE MANAGEMENT SYSTEMS- (3 CH)

This course presents the fundamental concepts required for the design, implementation, and effective use of database management systems (DBMS). It provides extensive coverage of the relational data model, relational algebra, and the Structured Query Language (SQL), along with data modeling techniques using Entity–Relationship (ER) diagrams and relational database design principles based on functional dependencies and normalization.

The course offers graduate students an in-depth understanding of both the conceptual foundations and implementation architectures of enterprise database systems, with a focus on relational database management systems (RDBMS). Emphasis is placed on the strategic role of databases in supporting innovation, digital transformation, and data-driven decision-making within modern organizations. Through the integration of theoretical knowledge and hands-on practice, students will learn to model, design, implement, and manage robust, efficient, and scalable database solutions that support innovative business processes, digital platforms, and emerging technologies in knowledge-intensive, digitally enabled enterprises.

INN635— TECHNOLOGY & INNOVATION STRATEGY (3 CH)

This course focuses on the internal and external conditions that form technological innovation by organizations. The aim is to learn core concepts and tools of technology and innovation strategy to make innovation processes within organizations more successful. The course covers innovation and competitive advantage strategies; the formulation, implementation, and assessment of innovation strategic alliances; external technology commercialization strategies; disruptive strategies for sustaining innovation; and open innovation strategies for globalizing innovation and developing skills to develop new products and services.

INN636— CYBERSECURITY FOUNDATIONS FOR INFORMATION SYSTEMS (3 CH)

This course provides a comprehensive introduction to the foundations of cybersecurity for information systems, covering both technical and managerial dimensions. It adopts a holistic, systems-oriented approach to understanding how security is designed, implemented, governed, and managed across modern organizations.

The course covers fundamental cybersecurity concepts, including confidentiality, integrity, availability, risk, threats, vulnerabilities, trust, and assurance, as well as key technical areas such as network security, cryptography, authentication, access control, intrusion detection, and incident response. In parallel, it emphasizes cybersecurity governance, policies, standards, legal and regulatory frameworks, auditing, and risk management.

Special attention is given to cybersecurity challenges relevant to Gulf Cooperation Council (GCC) countries, including digital government initiatives, critical infrastructure protection, financial systems, energy sectors, smart cities, and cross-border data flows. The course highlights the role of cybersecurity in enabling digital innovation, resilience, and trust in knowledge-based economies.

INN636— TECHNOLOGY TRANSFER AND INNOVATION (3 CH)

This course focuses on technical innovation and technological change, emphasizing the human element in generating, developing, and successfully applying new ideas in organizations. Students will gain a

comprehensive understanding of the innovation process, including organizational strategies, business development, and methods for implementing innovation.

Additionally, the course provides practical knowledge and skills in technology transfer, equipping professionals to move research and intellectual property (IP) from laboratories to commercial applications. Topics include IP rights, licensing, negotiation, and valuation techniques, bridging the gap between academic research and industrial implementation to ensure the successful commercialization of innovative ideas.

ELECTIVE COURSES – ENGINEERING MANAGEMENT TRACK:

INNM641— SPECIAL TOPICS IN ENGINEERING MANAGEMENT (3 CH)

This course provides graduate students with advanced exposure to specialized and emerging topics in Engineering Management that are not covered in the standard curriculum. The course is designed to address contemporary managerial, operational, and innovation-related challenges faced by engineering-based organizations.

The course emphasizes innovation-driven engineering management practices in the context of the Gulf Cooperation Council (GCC) countries, reflecting the region's strategic priorities, including large-scale infrastructure projects, industrial development, logistics hubs, sustainability initiatives, and regulatory environments. Selected topics may vary based on departmental focus and regional industry needs.

Learning is delivered through case studies, applied research, seminars, and a group project, enabling students to integrate theory with practice and develop solutions relevant to engineering management challenges in the GCC.

INNM642— OPERATIONS MANAGEMENT (3 CH)

This course provides graduate students with a comprehensive understanding of Operations Management as a core function in engineering-based, innovation-driven organizations. The course focuses on the efficient transformation of inputs into outputs by designing, analyzing, and improving production and service processes. Emphasis is placed on operations strategy, process, and resource management, production planning, inventory and supply chain management, quality management, and capacity planning. The course integrates analytical models, quantitative techniques, and managerial frameworks used in planning, controlling, and improving operational performance. The course is particularly relevant to organizations operating in dynamic, rapidly evolving environments, such as those in Gulf Cooperation Council (GCC) countries, where operational excellence, innovation, and technology adoption are critical to competitiveness and sustainability.

INNM643— PRODUCT LIFE CYCLE MANAGEMENT AND INNOVATION (3 CH)

This course introduces students to Product Lifecycle Management (PLM) and its strategic significance for organizations operating in competitive global and GCC markets. Students will gain a comprehensive understanding of the entire product lifecycle from idea conception, design, prototyping, development, and launch to market commercialization, sustainability, and end-of-life management. Through hands-on projects and practical exercises, students will become proficient in PLM tools, systems, and processes, including Product Data Management (PDM), ERP integration, and digital platforms supporting Industry 4.0 initiatives. Special emphasis is placed on cross-functional collaboration, integration of innovation, regulatory compliance, and sustainability in product development. This course equips students with the knowledge and skills to implement effective PLM strategies, reduce product development time, optimize

resources, enhance collaboration, and ensure that products meet market, environmental, and corporate social responsibility objectives.

INN644— INTRODUCTION TO MODELING AND SIMULATION (3 CH)

This course introduces graduate students to the principles and applications of modeling and simulation (M&S) as critical tools for analysis, planning, and decision-making in complex systems. The course emphasizes the development of conceptual, mathematical, and computational models to represent real-world systems characterized by uncertainty, variability, and dynamic behavior. Particular attention is given to applications relevant to Gulf Cooperation Council (GCC) countries, where modeling and simulation play a vital role in supporting large-scale infrastructure projects, industrial development, logistics systems, energy and environmental planning, healthcare systems, and public policy analysis. The course highlights how M&S techniques can support innovation, efficiency, risk management, and strategic decision-making in rapidly developing and technology-driven environments. Students will gain hands-on experience in building, validating, and analyzing simulation models using contemporary computational tools, enabling them to address challenges faced by engineering, industrial, and service organizations in the GCC region.

INN645— NEW PRODUCT DEVELOPMENT & COMMERCIALIZATION (3 CH)

This course provides students with a comprehensive understanding of the strategies, processes, and tools required to develop and commercialize new products in the dynamic markets of the Gulf Cooperation Council (GCC). It emphasizes how organizations in the GCC region can transform innovative ideas into market-ready products while managing the risks and uncertainties inherent in new product development. The course explores the full product lifecycle—from ideation and concept development to market launch and lifecycle management through a combination of theory, regional and global case studies, and practical exercises. Students will gain skills in integrating perspectives from marketing, R&D, operations, and business strategy, while understanding the regulatory, economic, and cultural factors unique to GCC markets. Special focus is placed on innovation management, design thinking, disruptive technologies, technology integration, concurrent engineering, and intellectual property rights (IPR) as they apply to the GCC region. Entrepreneurial approaches to launching innovative products in the Gulf markets are also emphasized.

INN646— INDUSTRIAL SUSTAINABILITY AND CIRCULAR ECONOMY (3 CH)

This course equips students with the knowledge and skills to manage and grow sustainable businesses by integrating circular-economy principles and strategies. It adopts a systems-thinking approach to analyze the technological, economic, and policy implications of circular-economy transitions across industrial sectors. Offered as part of the Innovation Program at Arabian Gulf University, the course places a strong emphasis on the context of the Gulf Cooperation Council (GCC) countries, addressing regional challenges and opportunities related to resource efficiency, energy and water management, waste reduction, and sustainable industrial development. The course focuses on real-world applications of sustainable management through case studies and practical examples from GCC industries, including manufacturing and energy sectors, sustainable urban development and smart cities, Waste management and zero-waste strategies, and Industrial innovation, entrepreneurship, and policy frameworks supporting circular economy transitions. The overarching objective of the course is to enable students to design and

implement innovative, circular solutions that support zero-waste goals, enhance industrial competitiveness, and contribute to long-term environmental and economic sustainability in the GCC region.