



جَامِعَةُ التَّقْنِيَّةِ وَالْعُلُومِ التَّطْبِيقِيَّةِ
 University of Technology and Applied Sciences
 Higher College of Technology الكليَّةُ التَّقْنِيَّةُ العُلْيَا

Specialization	Database				
Brief description of the Specialization	This specialization is designed to equip the students the fundamental up to the advanced database knowledge and skills required to design, create, deploy, secure and maintain a database infrastructure that is relevant to the current and future industry requirements.				
Sl.No.	Course Code	Course Name	Prerequisite		Brief description of the Course
			Course Code	Course Name	
1	ITDB101	Introduction to Database	None	None	This course is designed to introduce to the students the fundamental concepts of database management systems
2	ITDB201	Web Application Development I	ITIS103	Web Technologies	Designed to provide the student with knowledge and skills needed to develop functional and dynamic database-driven web sites using the open source technologies.
3	ITDB202	Structured Query Language	ITDB101	Introduction to Database	It introduces to the students the fundamental knowledge and skills in using the Structured Query Language using a relational database management system
4	ITDB203	Database Programming	ITDB202	Structured Query Language	It covers an in-depth discussion and lab applications to enable the students to create procedures, functions, packages and triggers using PL/SQL.

5	ITDB301	Advanced Database Applications	ITDB203	Database Programming	This course is designed to prepare the students to be able to develop a customized web-based graphical user interface application
6	ITDB302	Web Application Development II	ITDB201	Web Application Development I	This course provides the students the needed knowledge and skills in building dynamic web applications using ASP.NET
7	ITDB304	Fundamentals of Big Data	ITDB101	Introduction to Database	Designed to adequately prepare the students to understand and apply the fundamentals concepts of big data and its technologies
8	ITDB303	Data Warehouse Design	ITDB202	Structured Query Language	This is course is designed to introduce the building blocks of designing, implementing and testing a data warehouse.
9	ITDB401	Big Data Analytics	ITDB304	Fundamentals of Big Data	Designed to adequately prepare the students to offer the best practices in big data analytics and to provide them with the tools, techniques and industry accepted methodologies for data analytics
10	ITDB402	Database Management and Security	ITDB203	Database Programming	Designed to prepare the students in implementing the best practices in database security strategies using the tools, techniques and industry accepted methodologies for database management.
11	ITDB403	Data Mining	ITDB303	Data Warehouse Design	Designed to introduce the concepts and tools required to extract meaningful information from the available data.
12	ITDB404	Distributed Database Systems	ITDB302	Web Application Development II	This course is designed to prepare the students to understand and apply the principles of distributed database systems and its architecture

13	ITDB406	Database Administration	ITDB402	Database Management and Security	Designed to enable the students to gain the fundamentals knowledge and skills in the administration of the database servers and to ensure that it is functioning as intended by the underlying operating system
14	ITDB405	Course Project	ITDB301, ITDB302, ITDB401	Advanced Database Applications, Web Application Development II OR Big Data Analytics	This course requires the students to undergo project development and presentation in line with the relevant database topics and technologies