Course Name	DATA MINING		Course Code	ITEC - 415		
Credit Hours	3		Contact Hours	Lec	Lab	Total
				2	2	4

Offered as	☐ University Requirement ☐ College Requirement ☒ Program Requirement ☐ Core ☒ Elective
	☒ ITEC ☐ COMP ☐ CNET

Level	7th	Prerequisite	ITEC313

Course Description:

This course covers an introduction to methods and theoretical knowledge on the development of data warehouses and data analysis using data mining. Data quality methods and techniques for pre-processing of data are also discussed in this course. Modelling and design of data warehouses. Algorithms for classification, clustering and association rule analysis are also discussed. Practice tools like PSPP and WEKA are used for data analysis in the lab session.

Upon completion, the student will be able to:

♦ **Apply** the principles of computing and other relevant disciplines to identify IT-based solutions**.**
♦ **Design, implement, and evaluate** a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
♦ **Communicate** effectively in a variety of professional contexts.
♦ **Recognize** professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
♦ **Function** effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
♦ Use systemic approaches to **select, develop, apply, integrate and administer** secure computing technologies to accomplish user goals.

Assessment Methods	☒ **Mid-Term**	15%	☒ **Mini-Project**	15%	☒ **Assignments**	10%
			☒ **Lab Exam**	20%	☒ **Final Exam**	40%

Text Books:

♦ Data Mining Concepts and Techniques, Jiawei Han, Jian Pei and Hanghang Tong, Publisher: Katey Birtcher, 4th Edition, 2023, *ISBN: 978-0-12-811760-6*.

References:

♦ Data Mining Concepts and Techniques, Jiawei Han and Micheline Kamber, Jian Pei, Morgan Kaufmann Publishers, 3rd Edition, 2012, ISBN978-0-12-381479-1.
♦ Data Warehousing in the Real World; Sam Anahory & Dennis Murray; 1997, Pearson, ISBN 0201175193.