Course Title and Code	IT 372 Data Mining and Warehousing

I. Course Identification and General Information:

Course Title	Data Mining and Warehousing	Course Code	IT 372	Pre-requisite	IT 332
Department	Information Technology	Course Level	8	Credit Hours	3(3+0)

II. Course Description/Topics: The following course topics will be covered.

Introduction to data mining, Knowledge Database Discovery (KDD), and data mining applications are discussed. Moreover, basic statistical descriptions of data, similarity & dissimilarity measures, data visualization, preprocessing data warehousing, and data mining techniques & Tools are introduced.

III. Course Outcomes: Summary of the main learning outcomes for students enrolled in the course.

- When asked in writing, students will identify data mining concepts and principles, tools, and methods.
- When asked in writing, students will identify and describe the concepts of data warehousing design and implementation.
- Students will discover the nature of data that can be mined and related problems.
- When asked in writing, students will differentiate between the DM Tools and distinguish between DM methods.
- When asked in writing, students will be able to calculate and compare the similarity and dissimilarity measures for specific data sets
- Students will gather, prepare, and analyze data sets to be applied in data mining tasks.
- When asked, students will be able to use current techniques, skills, and tools necessary for Knowledge discovery.
- Students will be able to work effectively in teams to accomplish a common goal related to a specific problem.
- Students will demonstrate the capability of performing data preprocessing and data quality assurance.
- Students will be able to acquire new skills relevant to knowledge discovery.

IV. Required Text:

- Data Mining: Concepts and Techniques, 3rd Edition, (2013), Jiawei Han, Micheline Kamber, jian Pei, The Morgan Kaufmann Series in Data Management Systems. ISBN-13: 978-0123814791.

V. References:

- Data Mining Techniques: For Marketing, Sales, and Customer Relationship Management, Gordon S. Linoff , Michael J. A. Berry, (2011), ISBN: 978-0-470-65093-6.
- Data Mining: Practical Machine Learning Tools and Techniques, Ian H. Witten, Ian H. Witten, Third Edition, (2011), The Morgan Kaufmann Series in Data Management Systems, ISBN-13: 978-0123748560.