

**NORMANDEALE COMMUNITY COLLEGE
COMMON COURSE OUTLINE**

- I. Effective Date of outline**
Spring Semester, 2017. To be reviewed by department annually.

- II. Catalog Description**
COMT 1181 Database Management Systems 3 credits
Offered: Fall
Prerequisites: COMT 1107 or consent of instructor
Course description: Various database models with emphasis on the relational model. Data relationships and attributes, the use of entity relationship diagrams and data mapping operations.

- III. Recommended Entry Skills/Knowledge**
Reading level 3, English level 2, Math level 1

- IV. Major Content Areas (Topics)**
Overview of database management concepts and models as well as some data structures typical in a DBMS environment. The basic principles of file processing using database management software, concepts of database design, and database models will be introduced. Use of entity relationship diagrams. Design and creation of a data structure, populating data structures with data maintenance of database.
Databases with multiple tables and interrelating data in databases with multiple tables.

- V. Learning Outcomes**
Upon successful completion of the course, the student should be able to:
 - a) Describe various database models
 - b) Recognize the basic processes required to design a database
 - c) Perform database design at varying levels of detail
 - d) Know how to use standard DBMS software packages available on PC platforms
 - e) Know the fundamental operations of data normalization
 - f) Describe data sharing and planning
 - g) Perform database design using entity relationship diagrams
 - h) Describe typical contents and the use of data dictionary
 - i) Explain the use of SQL
 - j) Appreciate some of the design constraints caused by legacy database systems
 - k) Appreciate some of the physical considerations in database design
 - l) Distinguish between logical and physical data representation

- VI. Methods Used for Evaluation of Student Learning**
Unit exams, final exam, classroom participation, in-class projects, out-of-class projects

- VII. Special Information**
None