NORMANDALE COMMUNITY COLLEGE
COMMON COURSE OUTLINE

I. Effective Date of outline

Spring Semester, 2017. To be reviewed by department annually.

II. Catalog Description

COMT 2188 Systems Analysis and Design
3 credits
Offered: Spring
Prerequisites: COMT 1107 and COMT 1173
Course description: The total environment of a computer-based system – analysis, design, implementation and maintenance. Concepts and tools used in the system development life cycle and analysis of large systems are introduced.

III. Recommended Entry Skills/Knowledge

Reading level 3, English level 2, Math level 1

IV. Major Content Areas (Topics)

The system/software development life cycle (SDLC). System analysis techniques, including Requirements Management with Use Cases (RMUC). Interview techniques, various aspects of design, different design diagrams and models. Object-Oriented analysis and design best practices. The data flow diagram. Waterfall, Iterative, and Agile methodologies, Input considerations. Output design.

V. Learning Outcomes

Upon successful completion of the course, the student should be able to:

a. describe system/software development life cycle (SDLC) and know the typical documentation developed during each SDLC phase
b. understand what distinguishes each phase of the system development life cycle
c. understand Requirements Management with Use Cases as an analyst
d. develop data related diagrams and related artifacts
e. understand difference between analysis and design level activities and artifacts
f. understand different roles and related responsibilities with a software development project team
g. define input factors necessary for good design
h. understand some of the considerations in human-machine interfaces

VI. Methods Used for Evaluation of Student Learning

Unit exams, final project and exam, classroom participation, in-class and out-of-class projects

VII. Special Information

None