## MOHAWK VALLEY COMMUNITY COLLEGE

**UTICA AND ROME, NEW YORK**

### Course Outline

**IS 102 Computer Applications & Concepts 2 C-2, P-2, Cr-3**

**Prerequisite**: IS 101 Computer Applications & Concepts 1

Or IS 100 Introduction to Computer Applications & Concepts

**Course Description:**

This course will increase the knowledge and productivity of students already familiar with the personal computer. Students should gain knowledge of both hardware and software and by working with popular business applications software packages will increase their overall computer competency. The course will emphasize the use of the computer in the management of information. Areas of instruction will include the WINDOWS 7 operating environment, sharing files among applications, incorporating graphics, report generation and communications. Current computing issues such as computer ethics, computer crime and security will be discussed.

**Student Learning Outcomes (lecture/concepts):**

The Student will:

1. Enhance the understanding of evolution of computers and their impact on the workplace and society.
2. Classify fundamental hardware components and features of various types of networks (ex. Ethernet, powerline, home).
3. Differentiate between wired and wireless networks.
4. Discuss the fundamentals of a digital lifestyle.
5. Manage and protect digital data and devices.
6. Discuss the fundamentals of database management systems.
7. Understand how national databases organize and manipulate data.

**Student Learning Outcomes (Lab)**

The student will:

1. Develop competency in the use of the Windows Operating System environment.
2. Enhance and improve competence in creating, editing and applying a variety of formats to documents using Microsoft Office 2013 programs WORD, EXCEL, ACCESS and POWERPOINT..
3. Present a slide presentation that they have researched and created.
4. Understand the impact of the use of electronic programs in the development of different aspects of society both at home and abroad.

**Major Topics: Concepts**

1. - Networking and Security

-networking fundamentals

-network architectures

-network components

-peer-to-peer networks

2. Networking and security

-Client/server networks

-network topologies

-transmission media

-network operating systems

-network adapters

-network navigation devices

-network security, authentication

-access privileges

3. The Internet: How it works

-internet networking

-data transmission and protocols

-IP addresses and domain names

-Protocols: FTP, Telnet

-HTTP, HTML etc.

-communications over the Internet

4. Managing and protecting digital data and devices

-mobile computing devices: cell phones, portable media players

- PDA’s, tablet PC’s

-notebooks

- Digital telephony, digital media

-keeping data safe

-Managing online annoyances

5. Databases and Information systems  
 -advantages of using databases

-database terminology

-types of databases

-database management systems

-data storage

-data mining

-information systems

**Major topics: Lab**

**MS Word 2013**

Working with templates, styles and charts

Create web pages

Build documents from reusable content

Use markup tools

**MS PowerPoint 2013**

Enhance a presentation with advanced table, chart, and animation techniques

Delivering custom presentations

Apply advanced graphic techniques

Insert audio and video

**MS Excel 2013**

Using templates, range names and look-up functions

Importing data and using EXCEL as a database

Use financial functions, define names and validate data

Manage large workbooks

Use advanced sorting and filtering

Create charts, diagrams and templates

**MS Access 2013**

Designing and building a relational database

Managing and modifying existing tables

Create and modify table relationships

Create and manage complex queries

Create and manage Forms and Reports

**Revised 1/17**