Monroe Community College
STATE UNIVERSITY OF NEW YORK

COURSE INFORMATION SHEET
Note: If a more detailed, instructor/section-specific course information sheet is required, please contact the department.

DEPARTMENT:
Business Administration/Economics

COURSE:
CIS101 Programming for Information Systems

COURSE DESCRIPTION:
A first course in programming for the computer information systems student. Emphasis will be placed on program specification, analysis, problem solving, documentation and implementation of a Three-Tiered application using an object oriented language. Topics include an introduction to objects, their properties and methods, UML models, variables, constants, performing calculations, coding sequence, selection, and repetition control structures, procedures with parameter passing, multiple forms, arrays, arrayLists, database file processing, validation, error trapping, exception handling, and basic SQL. Several major programming projects will be assigned to be completed outside of lab and class. Three class hours. Two lab hours. 4 Credits.

COURSE PREREQUISITES:
CIS 100 or CPT 114, either with a grade of C or higher

COURSE LEARNING OUTCOMES:
1. Develop algorithms, which require conditional and repetitive logic, using one of the following: Flowcharts or Pseudo-code based on written and oral specifications.
2. Create a fault-tolerant computer program from an algorithm using the object-oriented paradigm.
3. Develop test data that evaluates all logic paths of the solution and trace the program manually.
4. Use and process data stored in a single-dimensioned array and an arrayList.
5. Write a well-documented computer program that follows an established style.
6. Develop a Three-Tier application, including problem domain, GUI classes, and data access classes that interact with a relational database.
7. Create Unified Modeling Language (UML) models, including use case diagrams, class diagrams and sequence diagrams.
8. Design and develop association relationships among problem domain classes and implement association classes.
9. Produce output to a printer.