## ASSOCIATE IN SCIENCE
### INFORMATION TECHNOLOGY

**2012-2013**

Student's Name: __________________________

Entrance Date: ____________________________

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### CORE
- CMPS 110 Comp. Literacy & Info Tech 3
- COPA 250 Arts & Human Experience I 3
- ENGL 150 English Composition I 3
- ENGL 151 English Composition II 3
- ENGL 250 World Literature I 3
- ENGL 251 World Literature II 3
- HIST 150 Intro Study of History 3
- MATH 180 College Algebra 3
- NSET 110 Intro. Natural Sciences I 3
- PSYC 150 Psychological Foundations 3

### DEPARTMENT GENERAL REQUIREMENTS

Choose two courses from the following:
- MATH 175 Elementary Statistics 3
- MATH 190 Calculus I 4
- PHIL 103 Introduction to Logic 3

| CMPS 318 Object Oriented System Anal. & Dev. 3 |
| CMPS 320 Web Design and Development 4 |
| CMPS 321 User Interface Design & Development 4 |
| CMPS 322 Introduction to Programming 4 |
| CMPS 422 Intermediate Programming 4 |

(CMPS - 300 Level)

(CMPS - 300 Level)

(CMPS - 300 Level)

(CMPS - 400 Level)

(CMPS - 400 Level)
Program Objectives

A.S. in Information Technology

Upon successful completion of this program, a student will be able to:

1. Work well with others and with a demonstrated appreciation of individual differences and a sensitivity to diversity. (Teamwork)
   a. Play different team roles: such as, system analyst, database application developer, tester, user interface designer, programmer.
   b. Work as a team to design and prototype different components of an information system
   c. Work as a team to research recent developments in the application of computing technology in the business world.
2. Clearly communicate thoughts and ideas both verbally and in writing. (Communication)
   a. Document process of designing and prototyping the interface, business, and/or database layers of an information system.
   b. Participate in a formal presentation to the class and answer any questions that arise.
   c. Write reports that document specific system components and their effects on stakeholders- i.e. network design and its impact to the customer.
   d. Research developments in the application of computer technology in a business or e-business environment and report the findings.
3. Apply information technology tools and techniques to meet the needs and expectations of the workplace. (Information Technology)
   a. Demonstrate the ability to assess software and/or hardware needs in a business environment.
   b. Develop and demonstrate the ability to design and implement the three layers of an Information system.
   c. Understand the design and implementation of networks and security systems.
4. Analyze, integrate and communicate complex information to facilitate management decision making. (Decision making/Problem solving/ Critical Thinking)
   a. Explain and justify designs based on design principles, patterns and heuristics.
   b. Analyze system requirements and model program domains.
   c. Analyze the differences between the internal design of different database systems and how the design differences impact performance issues.
5. Apply theory and practice in solving organizational problems. (Theory and Practice)
   a. Read and write object oriented code, in Java, that uses classes, inheritance, polymorphism, interfaces, and GUI’s
   b. Read and write analysis and design documentation in the Unified Modeling Language.
   c. Design and write programs to access relational databases using Java and JDBC
   d. Design both static and dynamic websites that illustrate the nature of client/server software and design techniques.
   e. Develop online and/or off line training materials for automated systems.
   f. Design and implement user interface using Visual Basic.NET.