COURSE SYLLABUS

Course Title:	Object-Oriented Programming Using JAVA
Department:	Business and Technology
Curriculum:	Computer Information system

Date submitted:	Sept. 2014 (AAC: 14-129)

Course Descriptors:
Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.

Course Code: (eg. ACC 101)	CSC*220
Course Type:	X

A: Clinical   B: Lab   D: Distance Learning
I: Individual/Independent   L: Lecture   M: Seminar   N: Internship
P: Practicum   U: Studio   X: Combined Lecture/Lab
Y: Combined Lecture/ Clinical/Lab   Z: Combined Lecture/Studio

Elective Type:	G/LAS

E: English   FA: Fine Arts   FL: Foreign Language   G: General
HI: History   HU: Humanities   LAS: Liberal Arts & Sciences   M: Math
S: Science   SS: Social Science

Credit Hours:	3
Developmental: (yes/no)	No

Contact Hours:		
	Lecture:	1.5
	Clinical:	0
	Lab:	1.5
	Studio	0
	Other:	0
	TOTAL:	3

Class Maximum:	24
Semesters Offered:	F/Sp

Prerequisites:

C- or better in Programming Logic and Design with Visual Basic (CSC*126), or permission of Program Coordinator

Corequisites:

None

Other Requirements:

None

Catalog Course Description:

The design of high-quality, object-oriented software. Problem-solving, utilizing applets and applications will be emphasized. Software engineering principles involving class hierarchy, arrays of objects, collections, encapsulation, and packages will be explored. The impact and significance of the Internet and World Wide Web with respect for Java will be demonstrated

Topical Outline:
List course content in outline format.

1. Java Fundamentals
2. Selections and Loops
3. Classes and Objects
4. Decision Structures
5. Mathematical Functions, Characters and Strings
6. Single Dimension Arrays
7. Multi-dimension Arrays
8. Inheritance and Polymorphism
9. Abstract Classes and Interfaces

Outcomes:
Describe measurable skills or knowledge that students should be able to

Upon successful completion of this course, the student will be able to do the following:

COURSE:

1. develop Programming algorithms

demonstrate as evidence that they have mastered the course content.	2. apply fundamental programming techniques with primitive data types, variables, constants, assignments, expressions and operators.
	3. demonstrate object-oriented programming with JAVA.
	4. demonstrate understanding of the software development process by using requirements to design, implement and test JAVA programs
	5. create, Compile and run JAVA program
	6. create and Use Objects

PROGRAM: *(Numbering reflects Program Outcomes as they appear in the college catalog)*

1. Demonstrate and apply algorithmic thinking ability

GENERAL EDUCATION: *(Numbering reflects General Education Outcomes as they appear in the college catalog)*

2. **Critical Analysis/ Logical Thinking -** Students will be able to organize, interpret, and evaluate evidence and ideas within and across disciplines; draw reasoned inferences and defensible conclusions; and solve problems and make decisions based on analytical processes.

Demonstrates: Identifies the issue(s); formulates an argument; explains and analyzes relationships clearly; draws reasonable inferences and conclusions that are logical and defensible; provides support by evaluating credible sources of evidence necessary to justify conclusions.

Does Not Demonstrate: Identifies few or no issues; formulates an argument without significant focus; provides an unclear explanation of analysis and relationships; drawing few reasonable inferences and conclusions that are illogical and indefensible; provides little to no support using credible sources of evidence necessary to justify conclusions.

Evaluation: List how the above outcomes will be assessed	Assessment will be based on the following criteria:
	1. Students will write short programs to demonstrate basic skills.
	2. Students will write at least two long programs to demonstrate the ability to solve a complex problem.
	3. One or more of these projects will be uploaded to ePortfolio.
	4. Written examinations

Instructional Resources: List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.	**Required:** **1.** Room will require Media Control System (Computer and multimedia projector) **2.** Microsoft Visual Studio or equivalent **3.** Computer Lab
Textbook(s)	Textbook: Refer to current academic year printout