**Object-Oriented Programming**

**Business Division**

This certificate program recognizes the need to educate students in the area of object-oriented programming and systems design. Students will take courses in the area of Object-Oriented Systems (OOS). Programming languages include C++, Visual Basic, and Java. An introduction to client/server systems applications is also included in this certificate program. Courses are designed to offer students immediate positions in industry, and will also provide a solid foundation for continuation in our two-year associate’s degree in Computer Information Systems Technology.

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| **Course No.** | **Title** | **Credits** |
| Two Required Courses (6 credits) |
| CSC\*H205 | Visual Basic I |  |
|  | or |  |
| CSC\*H113 | Programming I | 3 |
| CSC\*H231 | Database Design I | 3 |
|  |  |  |
| Four Elective Courses (12 credits) from this list |
| CSC\*H101 | Introduction to Computers | 3 |
| CSC\*H205 | Visual Basic I |  |
|  | or |  |
| CSC\*H113 | Programming I (if both are taken, one can be used to meet the 4 elective requirement) |  |
| CSC\*H206 | Visual Basic II | 3 |
| CSC\*H211 | VB & ASP .NET Web Programming | 3 |
| CSC\*H213 | Object Oriented Programming Using C++ | 3 |
| CSC\*H214 | Advanced C++ Programming | 3 |
| CSC\*H220 | Object Oriented Programming Using Java | 3 |
| CSC\*H227 | Web Programming with Java | 3 |
| CSC\*H228 | Mobile Device Programming | 3 |
| CSC\*H229 | Programming II | 3 |
| CSC\*H237 | Database Programming with VB .NET | 3 |
|  | Total Credit Hours | 18 |

Program Outcomes

Upon successful completion of all program requirements, graduates will be able to:

1. Demonstrate the use of objects in application programs.
2. Define and implement efficient object-oriented solutions using C++, JAVA, and Visual Basic.
3. Write, compile, and execute programs using C++, JAVA, and Visual Basic programming languages.
4. Create applications using object-oriented features.
5. Use inheritance and interfaces to create robust, reusable, programming code.
6. Demonstrate a basic understanding of relational database concepts.