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| **Visual Programming** | **Module Title:** |
| **CAP 211** | **Module ID:** |
| **CSC 113** | **Prerequisite:** |
| **3** | **Level:** |
| **3 (2+2+0)** | **Credit Hours:** |

**Module Description:**

This course involves using an Object Oriented Programming language like Java to cover the fundamentals of visual programming; Topics include files manipulation; related data structures; exception handling and Graphical User Interfaces (SWING technology, event handling and models), Developing applications for the web environment; Basic concepts of Human Computer Interaction; Comparison between the selected language and other visual languages. A large programming project is given in phases to develop a large application with an OO language.

**Module Aims:**

The aim of this course is to understand how to implement Object Oriented Programming language

**Learning Outcomes:**

* Ability to analyze a real business problem
* Ability to develop a software application
* Ability to debug software
* ability to using Microsoft Visual basic.Net
* Understand the visual programming concepts.
* Acquaintance IDE of visual studio .NET
* The ability to work independently to accomplish assigned tasks.
* The ability to communicate and to discuss related topics of the course with instructor inside and outside class.
* Acquaintance of using internet to get information related to the course

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| List of Topics | No. ofWeeks | Contact Hours |
| Introduction to Programming Concept /Microsoft Visual Basic  | 1 | 3 |
|  Forms/ Controls / GUI | 2 | 6 |
| Variables and Constant | 1 | 3 |
|  Making Decision | 2 | 6 |
|  Loops - Menus | 3 | 9 |
| Data Structure  | 3 | 9 |
| Building Windows Application and Errors | 3 | 9 |

**Textbook**:

Deitel & Deitel, the Complete JAVA 2, 2002, Prentice-Hall.

Deitel & Deitel, VisualBasic.NET; How to program, 2002; Prentice-Hall

JAVA How to Program, H. M. Deitel, P. J. Deitel,6th addition , 2004 Prentice Hall