CSIT 160: INTRODUCTION TO VISUAL BASIC

1. Course Information

Subject
CSIT - Computer Science/ Information Technology

Course Number
160

School
Science, Technology, Engineering, Mathematics

Course Title
Introduction to Visual BASIC

2. Hours

Semester Hours
3.00000

Lecture
3

Lab
0

Practicum
0

3. Catalog Description

For display in the online catalog
This course is an introduction to structured procedural and object oriented/event driven programming using Visual Basic. Students will use a current integrated development environment to build applications for Microsoft Windows personal computers and mobile devices. Working knowledge of Microsoft Windows required. Open lab time is required.

4. Requisites

Prerequisites
None

Corequisites
None

5. Course Type

Course Fee Code
3

Course Type for Perkins Reporting
vocational (approved for Perkins funding)

6. Justification

Describe the need for this course
This is a program elective in the AAS Technical Studies with Computer Technology Option. This is an embedded course offered in some Ocean County High Schools.

7. General Education

Will the college submit this course to the statewide General Education Coordinating Committee for approval as a course, which satisfies a general education requirement?

No

If the course does not satisfy a general education requirement, which of the following does it satisfy:

Elective

8. Consistency with the Vision and Mission Statements, the Academic Master Plan, and the strategic initiatives of the College

Please describe how this course is consistent with Ocean County College's current Vision Statement, Mission Statement, Academic Master Plan, and the strategic initiatives of the College:

	Add item
1	Offer comprehensive educational programs that develop intentional learners of all ages and ensure the full assessment of student learning in these programs. (Mission Statement)
2	Foster educational innovation through effective teaching-learning strategies, designed to develop and nurture intentional learners who are informed and empowered. (Vision Statement)
3	Employ technology and learning outcomes assessment to ensure student success in an increasingly diverse and complex world. (Vision Statement)
4	Prepare students for entrance into the workforce and/or for successful transfer to other educational institutions. (Academic Master Plan)
5	Seek to empower students through the mastery of intellectual and Practical Skills. (Academic Master Plan)
6	Challenge students to transfer information into knowledge and knowledge into action. (Academic Master Plan)

9. Related Courses at Other Institutions

Comparable Courses at NJ Community Colleges

Institution

Atlantic Cape CC

Course Title

Computer Programming-Visual Basic

Course Number

CISM174

Number of Credits

3

Institution

Rowan College at Burlington County

Course Title

Introduction to Visual Basic

Course Number

CIS 130

Number of Credits

3

Institution

Camden County College

Course Title

Visual Basic I

Course Number
CSC-213

Number of Credits
3

Institution
Rowan College of South Jersey

Course Title
Introduction to Programming

Course Number
CSC 101

Number of Credits
4

Institution
Middlesex County College

Course Title
Visual Basic Programming

Course Number
CSC 208

Number of Credits
4

Transferability of Course

Georgian Court University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
Elective, 3 credits	Elective	

Kean University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CPSX1003, CS Elective, 3 credits	Elective	

Monmouth University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CS001, 100 Level CS Elective, 3 credits	Elective	

Rowan University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CS 01102 Introduction to Programming 3 credits	Gen Ed	

Rutgers - New Brunswick, Mason Gross School of the Arts

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
Elective or 01198110 if combined with CSIT 110 or 123, 3 credits	Elective	

Stockton University

Course Code, Title, and Credits	Transfer Catagory	If non-transferable; select status
CSISEC, Computer Science and Information Systems Elective, 3 credits	Elective	

10. Course Learning Outcomes

Learning Outcomes

	Students who successfully complete this course will be able to:
CLO1	Identify and describe the function of the Visual Basic Integrated Development Environment (IDE) and the properties, toolbox, tool bar, and project windows
CLO2	Describe classes, objects, and class libraries.
CLO3	Design applications by identifying the tasks, objects, and events; the appropriate data types; and the user interface to solve problem definitions.
CLO4	Structure a program using event driven modules for problem definitions; and document and test Visual Basic programs.
CLO5	Solve problem definitions and deploy applications, demonstrate how to choose and utilize the following: decision making structures; control objects in form design to solve Web problem definitions; looping structures; array structures; and data and control structures to manipulate sequential files in a Windows application.
CLO6	Use Visual Basic procedures and functions with appropriate arguments to solve programming problems
CLO7	Use appropriate exception handling to capture and handle exceptions in the Visual Basic application.
CLO8	Develop applications that connect to a database to add, select, update and delete records.

11. Topical Outline

(include as many themes/skills as needed)

	Major Themes/ Skills	Assignments (Recommended but not limited to)	Assessments (Recommended but not limited to)	Course Learning Outcome(s)
TO1	Introduction to Computers and Visual Basic 1) File organization 2) An Introduction and History of Visual Basic 3) The Visual Basic Environment (Visual Studio) 4) Types of Visual Basic Applications	Hands-on	None	CLO1, 2
TO2	Problem Solving 1) Program Development Cycle 2) Implement graphical user interface design principles 3) Event planning document 4) Visual Basic application that create a Windows application	In-class exercise	Programming Exercises Exam	CLO3, 4
TO3	Fundamentals of Programming in Visual Basic 1) Writing Code 2) Tasks, Objects, and Events 3) Building the User Interface 4) Control Objects 5) Data Types and Variables 6) Input and Output 7) Built in Functions 8) Testing and Debugging 9) Visual Basic Windows application	Hands-on, Lab exercises	Programming Exercises	CLO3-5

TO4	Decisions 1) Relational and Logical Operations 2) Conditional Statements 3) If Blocks 4) Select case Blocks 5) Visual Basic mobile application	Hands-on, Lab exercises	Programming Exercises Exam	CLO4, 5
TO5	Repetitions 1) Do Loops 2) For / Next Loops 3) Data validation 4) Visual Basic web application	Hands-on, Lab exercises	Programming Exercises Exam	CLO4, 5
TO6	General Procedures 1) Sub Procedures 2) Functions 3) Modular Design 4) Visual Basic Windows application using exception handling with Try-Catch block	Hands-on, Lab exercises	Programming Exercises Exam	CLO5, 6, 7
TO7	Arrays 1) Creating and accessing Arrays 2) Using Arrays 3) Sorting and Searching 4) Two Dimensional Arrays 5) Visual Basic Windows application that uses arrays and sequential files	Hands-on, Lab exercises	Programming Exercises Exam	CLO5, 6
TO8	Databases 1) Connecting to database 2) Add, select, update and delete records 3) Visual Basic Windows application that manipulates a database	Hands-on, Lab exercises	Programming Exercises Exam	CLO6, 8

12. Methods of Instruction

In the structuring of this course, what major methods of instruction will be utilized?

Lecture, group work, lab exercises

13. General Education Goals Addressed by this Course (this section is to fulfill state requirements)

Information

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Technological Competency

Yes

Related Course Learning Outcome

All

Related Outline Component

All

Assessment of General Education Goal (Recommended but not limited to)

Mastering the basic skills necessary to take written specifications and turn them into a functional and well-organized computer program

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Independent/Critical Thinking
Yes

Related Course Learning Outcome
CLO3

Related Outline Component
TO2, 3

Assessment of General Education Goal (Recommended but not limited to)
Mastering the basic skills necessary to take a problem statement and turn it into a functional algorithm

14. Needs

Instructional Materials (text etc.):
Appropriate textbooks and/or open educational resources will be selected. Contact the department for current adoptions. Class notes, presentations, software and online materials.

Technology Needs:
College portal and/or college distance learning platform and/or textbook or instructor website.

Human Resource Needs (Presently Employed vs. New Faculty):
Presently employed.

Facility Needs:
Laboratory classrooms equipped with computer workstations, each configured to support program development using Java. Podium computer similarly equipped plus the ability to present audio-video presentations to the class.

15. Grade Determinants

The final grade in the course will be the cumulative grade based on the following letter grades or their numerical equivalents for the course assignments and examinations

A: Excellent

B+: Very Good

B: Good

C+: Above Average

C: Average

D: Below Average

F: Failure

I: Incomplete

R: Audit

For more detailed information on the Ocean County College grading system, please see Policy #5154.

16. Board Approval

History of Board approval dates

Revised: December 1990; February 27, 1996; April 30, 1996; December 1998; May 4, 2004; Feb. 28, 2006. March 8, 2006
Board of Trustees Approval Date: September 24, 2007
Board of Trustees Approval Date: August 24, 2009
Board of Trustees Approval Date: April 25, 2011
Board of Trustees Approval Date: March 26, 2012
PLT Approval of Form: May 22, 2012
Board of Trustees Approval Date: November 4, 2013
Approval of Form: September 2017
Board of Trustees Approval Date: March 26, 2020