10/17/2022 DATE
☑ REQUIRED COURSE
☐ ELECTIVE COURSE

Business DIVISION
☐ NEW COURSE
☑ REVISION

# Lake Land College

## Course Information Form

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **COURSE NUMBER:** | CIS-052 | | **TITLE:** *(30 Characters Max)* | | Visual Basic | | | | | | |
| **SEM CR HRS:** | 4 | **Lecture:** | 3 | **Lab:** | 2 | | | | **ECH:** | 5 | |
| **Course Level:** | ☐ Gen Ed / IAI ☐ Baccalaureate /Non-IAI ☑ Career/Technical ☐ Dev Ed/ Not in Degree Audit | | | **Clinical Practicum:** | 0 | **SOE/ Internship:** | 0 | | **SOE ECH:** | 0 | |
| **COURSE PCS #** | 12.11021 | | **IAI Code** | | | | | **Contact Hours Per Week** | | | |
| **Repeatable (Y/N):** | Y | **Pass/Fail (Y/N):** | N | **Variable Credit (Y/N):** | N | **Min:** | | **Max:** | | **16 Wks** | 250 | **8 wks** | 500 |
| **Prerequisites:** | CIS-156 | | | | | | | | | | |
| **Catalog Description: (40 Word Limit)** | Continuation of fundamentals of programming including selection, iteration, and condition structures. Introduction to graphical interface(s) and object-oriented, event-driven applications requiring the use of events, arrays, classes, inheritance, file handling, error handling and more. Also includes ASP.NET applications and ADO.NET applications. | | | | | | | | | | |

| List the Major Course Segments (Units) | Contact Lecture Hours | Contact Lab Hours | Clinical Practicum | Non-Clinical Internship/ SOE |
|---|---|---|---|---|
| Introduction to Visual Basic | 2 | 1 | | |
| Designing Applications | 5 | 3 | | |
| Variables and Arithmetic Operations | 3 | 2 | | |
| Decision Structure | 5 | 4 | | |
| Repetition Structure | 5 | 4 | | |
| Web Applications ASP.NET | 5 | 3 | | |
| Databases ADO.NET | 5 | 3 | | |
| Procedures and Exception Handling | 5 | 3 | | |
| Arrays | 5 | 3 | | |
| Classes and Inheritance | 5 | 4 | | |
| **TOTAL** | 45 | 30 | 0 | 0 |

| EVALUTION | | | | | | | |
|---|---|---|---|---|---|---|---|
| **QUIZZES** | ☑ | **EXAMS** | ☑ | **ORAL PRES** | ☐ | **PAPERS** | ☐ |
| **LAB WORK** | ☑ | **PROJECTS** | ☑ | **COMP FINAL** | ☐ | **OTHER** | ☐ |

| COURSE MATERIALS | | |
|---|---|---|
| **TITLE:** | Microsoft Visual Basic 2017 (ISBN: 1337102113) | |
| **AUTHOR:** | Hoisington | |
| **PUBLISHER:** | Cengage | |
| **VOLUME/EDITION/URL:** | For Windows, Web, Windows' Store and Database Applications: Comprehensive, 1st edition | |
| **COPYRIGHT DATE:** | 2018 | |

| MAJOR COURSE SEGMENT | HOURS | LEARNING OUTCOMES |
|---|---|---|
| | | ***The student will be able to:*** |
| Introduction to Visual Basic | 2 | Explain event-driven programming. Configuring and customizing the VB environment.<br>Identify Basic program operations.<br>Identify Types of VB applications. |
| Designing Applications | 5 | Create a project.<br>Add and resize objects.<br>Change properties.<br>Describe Program Development Life Cycle.<br>Code and run a program. |
| Variables and Arithmetic Operations | 3 | Use variables in code.<br>Identify Data types.<br>Identify Literals and Constants.<br>Identify Scope of variables.<br>Create Procedures.<br>Use Arithmetic Operations. |
| Decision Structure | 5 | Use If then else structure.<br>Use Select case structure.<br>Use Relational and Logical operators. |

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|---|---|---|
| Repetition Structure | 5 | Create Do while and For next loops.<br>Validate data.<br>Use counters and accumulators.<br>Create Nested loops.<br>Set breakpoints. |
| Web Applications ASP.NET | 5 | Create a Web form using ASP.NET.<br>Set properties.<br>Add objects.<br>Validate data.<br>Use <br> tag.<br>Use string manipulation. |
| Databases ADO.NET | 5 | Create a Database Application using ADO.NET.<br>Establish a database connection.<br>Add, delete and select records. |
| Procedures and Exception Handling | 5 | Code a Sub procedure.<br>Pass an argument by value and reference.<br>Code a function procedure.<br>Use a Try-Catch block. |
| Arrays | 5 | Create an array.<br>Store data and manipulate an array.<br>Sort an array.<br>Describe parallel arrays.<br>Create two-dimensional arrays. |
| Classes and Inheritance | 5 | Create a class.<br>Instantiate an object.<br>Demonstrate how to pass arguments.<br>Write a class constructor.<br>Write overridable procedures. |
| | 45 | |

| COURSE OUTCOMES* | At the successful completion of this course, students will be able to: |
|---|---|
| | • Understand the three basic logic structures. |
| | • Understand how to create and use a sub procedure. |
| | • Understand how to create and use an array. |
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** Course Outcomes will be used in the Assessment Software for Outcomes Assessment. Limit to 3 - 5.*