2/6/2025 DATE
☑ REQUIRED COURSE
☑ ELECTIVE COURSE

BUS DIVISION
☐ NEW COURSE
☑ REVISION

Lake Land College
Course Information Form

COURSE NUMBER:	CIS-164		TITLE: *(30 Characters Max)*			Object-Oriented Programming II		

SEM CR HRS:	3	Lecture:		3		Lab:	0			ECH:	3

Course Level:	☐ Gen Ed / IAI ☐ Baccalaureate /Non-IAI	☑ Career/Technical ☐ Dev Ed/ Not in Degree Audit	Clinical Practicum:	0	Work-based Learning:	0	WBL ECH:	0

Course PCS & CIP:	12 - 11.0201	IAI Code:	N/A	Contact Hours (Minutes/Week)		

Repeatable (Y/N):	Y	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:	Max:	16 Wks	150	8 Wks	300

Prerequisites:	MAT-160
Corequisites:	None
Catalog Description: (40 Word Limit)	Advanced concepts in object-oriented programming. Topics include polymorphism, inheritance, managing data files, debugging, exception handling and web-based applications.

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Windows programming	6			
Handling events	6			
Inheritance	7			
Exception handling	6			
File handling	7			
Data queries	7			
Web-based applications	6			
TOTAL	45	0	0	0

EVALUTION

QUIZZES ☑	EXAMS ☑	ORAL PRES ☐	PAPERS ☐
LAB WORK ☐	PROJECTS ☑	COMP FINAL ☐	OTHER ☐

COURSE MATERIALS

TITLE:	Microsoft Visual C# 2017 (ISBN: 978-1-337-10210-0)	
AUTHOR:	Joyce Farrell	
PUBLISHER:	Course Technology	
VOLUME/EDITION/URL:	7th	
COPYRIGHT DATE:	2018	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Windows programming	6	1. Describe what a Control is. 2. Create a form with labels. 3. Add checkbox and radiobuttons to a form. 4. Add listbox, combobox, checkedlistbox, monthcalendar and datetimepicker to form. 5. Use groupboxes, panels and menustrip.
Handling events	6	1. Declare events and handlers. 2. Create composed delegates. 3. Handle Control component, mouse and keyboard events. 4. Write an event-handler method. 5. Use a ComboBox and ListBox. 6. Wire multiple RadioButton and CheckBox objects events to a single event-handler method.
Inheritance	7	1. Explain concept of inheritance. 2. Extend classes. 3. Override methods. 4. Create and use abstract classes. 5. Understand a partial class. 6. Create and use interfaces.

Exception handling	6	1. Define the Exception class. 2. Use exception-handling methods. 3. Catch multiple Exceptions. 4. Create an Exception class. 5. Use the try...catch…finally clause.
File handling	7	1. Explain how data files are stored. 2. Use the File and Directory classes. 3. Identify streams. 4. Read, write and search a sequential access file. 5. Append to a sequential file. 6. Read and write to a binary file.
Data queries	7	1. Create data queries. 2. Use the DataReader class. 3. Access and update databases. 4. Identify SQL statements. 5. Retrieve data using LINQ expressions.
Web-based applications	6	1. Develop and configure web forms pages. 2. Add HTML and Web Forms server controls. 3. Add Web controls to a form. 4. Use ASP.NET to create a Web application. 5. Add validation, custom and composite controls to a web form.
	45	

Outcomes*	At the successful completion of this course, students will be able to:
Course Outcome 1	Write a program in an object-oriented language using inheritance.
Course Outcome 2	Write a program in an object-oriented language using a sequential access data file.
Course Outcome 3	Write a program in an object-oriented language using data queries.
Primary Laker Learning Competency	
Secondary Laker Learning Competency	

*Course and program outcomes will be used in the software for outcomes assessment and should include at least 1 primary and 1 secondary Laker Learning Competency. Limit to 3-5.