NGUYEN TAT THANH UNIVERSITY
NTT INSTITUTE OF INTERNATIONAL EDUCATION
GLOBAL LEARNING, GLOBAL SUCCESS

SCHEME OF WORK

Programme	International Standard Program	Class	20BITV
Course Title	Application Programming Interfaces	Semester	2
Lecturer	Msc. Luong Tran Hy Hien	Year	2022 - 2023
Contact	hien.th.luong@nttu.edu.vn		
Verifier	Dr. Tran Son Hai		

LEARNING OUTCOME (LO)	Assessment 1	Assessment 2	Assessment 3
1. Produce a Software Design Document by analysing a business-related problem and deduce an appropriate solution including a set of initial requirements.	Install tool for Development	Document guide equirement (1)	Document guide requirement (2)
2. Use design and development methodologies with tools and techniques associated with the creation of a business application.	Control UI Basic controls	Control UI (2) Menu controls, Dialog (MyNotepad)	Control UI (3) Advanced controls
3. Programming foundation for absolute with C#.	Win Application Mini game	Win Application Store - Function	Win Application Store - Report
4. Application development with ASP.NET.	x	Web MVC basic	Web MVC + Database

Session / Date	Learning Outcome (LO)	Teaching Content & Session Activities	Readings and Other Resources
1	LO1	Programming foundation: • Conducting Code Reviews	Book[1] [1]

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[1] Olga Filipova, Rui Vilão (2018). *Software Development From A to Z: A Deep Dive into all the Roles Involved in the Creation of Software*. Apress.

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Session / Date	Learning Outcome (LO)	Teaching Content & Session Activities	Readings and Other Resources
		• Requirements, Commitment, and Deadlines Introduction to Algorithms: • Foundations • Sorting and Order Statistics • Common Data Structures • Graph Algorithms	
2	LO2	Development methodologies: • Roles, Responsibilities, and Methodologies • User-Centered Design • Agile Software development • Frontend Development • Backend Development	Book [1]
3	LO3	C# Development Fundamentals • Introducing C# • Writing a C# program • Variable and Expression • Flow control • Loop • Array • Functions	Book [1]
4	LO3	C# Development Fundamentals (cont): • List, Dictionary (Collection) • Intro OOP • Define Classes • Inheritance • Polymorphism	Book [1]
5	LO4	C# Development Fundamentals (cont): • Generics	Book [1]

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Session / Date	Learning Outcome (LO)	Teaching Content & Session Activities	Readings and Other Resources
		• Files • Debugging and Error Handling • LinQ	
6	LO4	C# Development Fundamentals (cont): • Windows Programming • Basic Desktop Programming • Advanced Desktop Programming • Working with Database Sql Server (LINQ & Entity framework)	Book [1]
7	LO4	ASP.NET CORE Fundamentals • Understand Asp.net Core • Working with Models and Model Binding • Editing Data with Razor Pages • Building the User Interface • Integrating Client-side JavaScript and CSS	Book [1]
8	LO4	ASP.NET CORE Fundamentals • Working with Sql Server and Entity Framework Core • Deploying Asp.net Core Web Application	Book [1]
9	LO4	Building Web Application with Asp.net Core MVC • Setting up an MVC Application • Creating The List Page • Working with Real Data Using Entity Framework • Adding Navigation to Site • Improving the Views in the Application • Creating an Order Form • Adding Authentication	Book [1]
10	LO1-4	Final Exam	

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Assessment's components	Types of assessments	Weight distribution	Special requirements
Continuous assessment	Attendance, groupwork(s), discussions.	**20%**	Including student's attendance and participation grades. For student's participation grade, you can use a combination of group discussion, quick Q&A, short quiz (15'), etc.
Mid-term assessment	Assignment(s), Seminar(s).	**30%**	Grade has to be above 0. Otherwise, students will be disqualified for the final assessment(s).
Final assessment	Project(s).	**50%**	Grade has to be 4 or better to have earlier assessments' grades counted toward the overall grade. Otherwise, grade for the final assessment is the grade for the course.