Course Syllabus

STI VISION: To be the leader in innovative and relevant education that nurtures individuals to become competent and responsible members of society. **STI MISSION:** We are an institution committed to provide knowledge through the development and delivery of superior learning systems. We strive to provide optimum value to all our stakeholders - our students, our faculty members, our employees, our partners, our shareholders, and our community. We will pursue this mission with utmost integrity, dedication, transparency, and creativity.	**STI INSTITUTIONAL OUTCOMES:** **Character (IO1):** An STIer is a person of character. An STIer takes responsibility for his/her actions, treats people with respect, and lives with integrity. **Critical thinker (IO2):** An STIer is a critical thinker. An STIer challenges and analyses all information through sound questioning and is unafraid to push for creative ideas. **Communicator (IO3):** An STIer communicates to understand and be understood. An STIer discerns the value of information read or heard and effectively expresses his/her own emotions when sharing information, may it be spoken or written. **Change-adept (IO4):** An STIer is change-adept. An STIer can adjust, adapt, and reinvent continuously to changing circumstances. An STIer believes in letting go of the old and embracing the new to achieve his/her fullest potential.

SERIAL NUMBER: IT2115	**COURSE TITLE:** INTERMEDIATE MOBILE PROGRAMMING (CS Elective 2)	**CREDIT:** 2 lec 1 lab (2 hours lecture and 3 hours laboratory per week)
COURSE DESCRIPTION:	This course covers cross-platform mobile application development topics, including local data storage and invoking REST-based web services.	
PREREQUISITE:	Fundamentals of Mobile Programming	
COURSE OUTCOMES:	After successful completion of this course, the student should be able to: CO1. Build complex views using layouts and advanced controls; CO2. Utilize web services to perform basic CRUD operations; CO3. Evaluate data storage options; and CO4. Develop multi-page apps using navigation paradigms.	
MANDATED BOOK:	None	
REFERENCES:	1. Bilgin, C. (2021). Mobile development with .NET (2nd ed.). Packt Publishing. 2. Jackson, W. (2017). *Android apps for absolute beginners: Covering Android 7* (4th ed.). California: Apress Media, LLC. 3. Qui, M., Dai, W., and Gai, K. (2017). *Mobile applications development with Android: Technologies and algorithms.* CRC Press.	

COURSE REQUIREMENTS:	• Class Participation *(Recitation, Seatwork, Quizzes)* • Major Examinations • Task Performance *(Laboratory Exercises, Projects)*
GRADING SYSTEM:	The following percentage distribution shall be followed: Prelims 20% Midterms 20% Pre-finals 20% Finals 40% 100% The following are the recommended periodical grade components for this course: Class Participation 20% Task Performance 50% Major Examination 30% 100%
We'd be glad to hear from you. For questions or feedback on this course, feel free to email us through student.feedback@sti.edu	

Course Outline

Learning Objectives (LO)		Week	LEC Hours	LAB Hours	TOPICS	Teaching and Learning Activities	Assessment Tasks
1 2	Distinguish the concepts involved in .NET MAUI app development (CO1) Create a .NET MAUI app	**1-2**	**4**	**6**	**Mobile App Development with .NET MAUI** Fundamentals .NET MAUI Features	Lecture-Demonstration PPT Game	01 Seatwork 1 01 Laboratory Exercise 1
3 4	Design a shared user interface for supported platforms (CO1) Add visual controls to a .NET MAUI app	**3-4**	**4**	**6**	**Visual Controls** Building Blocks Navigation Structures	Lecture-Demonstration	02 Quiz 1 02 Laboratory Exercise 1 02 Performance Task 1
		5			**PRELIMINARY EXAMINATION**		Pen-and-Paper Test
5 6	Create and modify pages and controls using XAML (CO1) Handle UI events and wire them up in XAML	**6-7**	**4**	**6**	**User Interface with XAML** Fundamentals Event Handling	Lecture-Demonstration PPT Game	03 Seatwork 1 03 Laboratory Exercise 1
7 8	Arrange and size UI elements (CO1) Display views in a vertical or horizontal list	**8-9**	**4**	**6**	**XAML Pages** Layout StackLayout	Lecture-Demonstration	04 Quiz 1 04 Laboratory Exercise 1 04 Performance Task 1
		10			**MIDTERM EXAMINATION**		Pen-and-Paper Test
9 10	Distinguish the differences between flyout and tab navigation (CO1) Implement navigation paradigms	**11-12**	**4**	**6**	**Flyout and Tab Navigation** Flyout Navigation Tab Navigation	Lecture-Demonstration PPT Game	05 Seatwork 1 05 Laboratory Exercise 1
11 12	Determine an app's network connectivity using C# code (CO2) Use HttpClient to consume a REST service	**13**	**2**	**3**	**Web Services** Detecting Network Connectivity Consuming a REST Service	Lecture-Demonstration	06 Quiz 1 06 Performance Task 1
		14			**PRE-FINAL EXAMINATION**		Pen-and-Paper Test

13 14	Compare the options for storing local data (CO3) Save relational data in a database	**15-16**	**4**	**6**	**Local Data Storage** Data Storage Options SQLite	Lecture-Demonstration PPT Game	07 Quiz 1 07 Laboratory Exercise 1
		17	**2**	**3**	**Project Presentation**		07 Performance Task 1
		18			**FINAL EXAMINATION**		Pen-and-Paper Test