



Teaching Plan

College of Art, Media and Technology
Software Engineering

Course

953103 Programming Logical Thinking
First Semester, Academic Year 2019

1. **Lecturer** : Prompong Sugunnasil (701)
Passakorn Phannachitta/Pathathai Na Lampoon (702)
2. **Learning Style** : (/) Lecture (/) Laboratory
3. **Prerequisites** : None
4. **Credit** : 2 (1-2-4)

5. Course Objective

Students are able to

1. develop the software by think systematically
2. develop the software by think logically
3. manage basic software development

6. Course Content

Week no	Content	Hour	Teaching Activity	Instructor
1	<ul style="list-style-type: none"> - Course policy announcement - Introduction to Programming Logical Thinking - Introduction to ApplInventor 	1	Lecture	Prompong Sugunnasil (701) Passakorn Phannachitta /Pathathai Na Lampoon (702)
2	<ul style="list-style-type: none"> - Sequence structure - Flow chart - Pseudocode 	1	Lecture	Prompong Sugunnasil (701) Passakorn Phannachitta /Pathathai Na Lampoon (702)
	<ul style="list-style-type: none"> - Introduction to draw.io - Flow chart - Pseudocode 	2	Lab	/Pathathai Na Lampoon (702)
	After-class : https://www.youtube.com/watch?v=G41G_PEWfjE		1	Self-studies
3	<ul style="list-style-type: none"> - Data type and variable - Arithmetic operation - Expression and precedence 	1	Lecture	Prompong Sugunnasil (701) Passakorn Phannachitta /Pathathai Na Lampoon (702)
	- Problem set in arithmetic operation and precedence	2	Lab	/Pathathai Na Lampoon (702)
4	- Problem solving strategy	1	Lecture	Prompong Sugunnasil (701)
	- First program in ApplInventor	2	Lab	

Week no	Content	Hour	Teaching Activity	Instructor
	– Simple program			Passakorn Phannachitta /Pathathai Na Lampoon (702)
5	–Logical operation –Relational operation –Boolean operation – Precedence	1	Lecture	Prompong Sugunnasil (701) Passakorn Phannachitta /Pathathai Na Lampoon (702)
	–Problem set in comparative operation – Simple program –User interface design	2	Lab	
	After–class : https://www.youtube.com/watch?v=m2Ux2PnJe6E https://www.youtube.com/watch?v=JtL7w6ja5il	1	Self–studies	
6	– Selection operation –Selection structure design technique – Flow chart of selection operation	1	Lecture	Prompong Sugunnasil (701) Passakorn Phannachitta /Pathathai Na Lampoon (702)
	–Programming problem set in selection operation	2	Lab	
	After–class : https://www.youtube.com/watch?v=mgooqyWMTxk https://www.youtube.com/watch?v=G2hdlhDYICw	1	Self–studies	
7	– Repetition Operation (While–Loop) – Repetition structure design technique – Flow chart of repetition operation	1	Lecture	Prompong Sugunnasil (701) Passakorn Phannachitta /Pathathai Na Lampoon (702)
	– Programming problem set in repetition operation (while–loop)	2	Lab	
8	– Repetition Operation (For–Loop) – Repetition structure design technique	1	Lecture	Prompong Sugunnasil (701)
	– Programming problem set in repetition operation (for–loop)	2	Lab	Passakorn Phannachitta /Pathathai Na Lampoon (702)
	– Advance repetition programming technique			
– Midterm Exam – [4 th October 2019 15.30–18.30] – Midterm Exam–				
9	–Nested Flow Operation	1	Lecture	Prompong Sugunnasil (701)
	–Programming problem set in nested structure	2	Lab	

Week no	Content	Hour	Teaching Activity	Instructor
	operation			Passakorn Phannachitta /Pathathai Na Lampoon (702)
10	–Concept of data collection	1	Lecture	Prompong Sugunnasil (701)
	–Array declaration –Array usage –Programming problem set in array	2	Lab	Passakorn Phannachitta /Pathathai Na Lampoon (702)
	After-class : https://www.youtube.com/watch?v=gm3GPfUq0Wg	1	Self–studies	
11	–Pre–Defined Method –User–Defined Method	1	Lecture	Prompong Sugunnasil (701)
	–Programming problem set in method	2	Lab	Passakorn Phannachitta /Pathathai Na Lampoon (702)
12	–Introduction to Java Programming	1	Lecture	Prompong Sugunnasil (701)
	–Java programming construct	2	Lab	Passakorn Phannachitta /Pathathai Na Lampoon (702)
13	–Translation of Program Design to Source Code	1	Lecture	Prompong Sugunnasil (701)
	–Converting flowchart/pseudocode to source code –Problem set	2	Lab	Passakorn Phannachitta /Pathathai Na Lampoon (702)
– Final Exam – [30 th November 2019 08.00–11.00] – Final Exam–				

Remark: The examination date for both midterm and final can be changed later. Please check with the lecturer and the formal announcement.

7. Course Requirements

7.1 Lectures in class (1 hours per week)

7.2 Lab Practice (2 hours per week)

7.3 Unannounced Quizzes

7.4 Assignments

7.5 Lab examination

7.6 Midterm and final exams

7.7 Project assignment

8. Grading System

8.1 Lecture attendance and quizzes

Lecture Attendance 5 %

Quiz 5 %

8.2 Lab attendance

Attendance 5 %

Achievement 5 %

8.3 Assignment 5 %

8.4 Midterm Examination 25 %

8.5 Final Examination 30 %

8.6 Lab Examination 10 %

8.7 Project Assignment 10 %

Total 100 %

The semester grade is computed by

(/) Criteria Reference () Group Reference

9. Grade Policy

- ☐ Any late assignment submissions will either be penalized (at least 50% reduction) or **NOT** be accepted.
- ☐ If a student is late more than 15 minute in either lab or lecture, you will be regarded as absence.
- ☐ If a student needs to be absent with legitimate causes, please notify the lecturer or TA before the date of absence.
- ☐ The student who has come to class less than 80% will **NOT** allow to take the FINAL EXAM.
- ☐ The student who does not take the final exam gets “**F**” for this course.
- ☐ The work that does not strictly follow the instruction is not accepted.

10. Course Texts:

- ☐ App Inventor 2: Create Your Own Android Apps
- ☐ Hello App Inventor!: Android programming for kids and the rest of us
- ☐ App Inventor 2 Essentials