



Module Description

Module name	Mobile Application Technology
Module level, if applicable	Bachelor of Informatics
Code, if applicable	21D12142903
Subtitle, if applicable	-
Course, if applicable	
Semester(s) in which the module is taught	7 th
Person responsible for the module	Dr. Ir. Zahir Zainuddin, M.Sc..
Lecturer	1. Dr. Ir. Zahir Zainuddin, M.Sc. 2. A. Ais Prayogi, ST. M.Eng
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is an elective course and is offered starting from the 7 th semester.
Type of teaching, contact hours	Teaching methods: [group discussion], [case study], [collaborative learning], [problem-based learning]. Teaching forms: [lecture] CH : 8.00 - 16.00
Workload	For this course, students are required to meet a minimum of 136.00 hours in one semester, which consist of: - 40.00 hours for lecture, - 48.00 hours for structured assignments, - 48.00 hours for private study
Credit points	3 credit points (equivalent with 5.1 ECTS)



<p>Requirements according to the examination regulations</p>	<p>Students must have attended all minimum 80% of classes and submitted all class assignments that are scheduled before the final tests.</p>
<p>Recommended prerequisites</p>	<p>Mobile Programming</p>
<p>Module objectives/intended learning outcomes</p>	<p>Intended Learning Outcomes (ILO):</p> <p>ILO 1: Have the knowledge of fundamental in Computing Science that includes basic theory and concepts of computer science, Mathematics and Statistics, Programming Algorithm, Software Engineering, Information Management and Digital Resilience, also the advance topics of either Artificial Intelligence, Data Science, Computer Network, Cloud Computing or Internet of Things.</p> <p>ILO 4: Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements by applying computer science theory and software development fundamentals..</p> <p>Course Learning Objective (CLO):</p> <p>After completing this course should be able to understand advanced concept in mobile programming and able to design and implement application using advanced concept in mobile programming</p> <p>ILO 1 → CLO 1: Students able to understand advanced concepts in mobile programming including widgets, fragments, sensors, localization, location based information and custom views.</p> <p>ILO 4→ CLO 2: Students able to design and develop mobile application using advanced concepts in mobile programming</p>
<p>Content</p>	<p>Students will learn about :</p> <ol style="list-style-type: none"> 1. Android Advanced User Experience <ol style="list-style-type: none"> a. Widgets b. Notifications



	<ul style="list-style-type: none"> c. Fragments 2. Android Performance tools <ul style="list-style-type: none"> a. GPU rendering tool b. Memory Performance tools 3. Application Accessibility <ul style="list-style-type: none"> a. Localization b. Accessibility 4. Geo Features <ul style="list-style-type: none"> a. Places API b. Google Maps 5. Advanced Graphics and Views <ul style="list-style-type: none"> a. Custom View b. Canvas c. Animation and Video
<p>Forms of Assessment</p>	<p>Assessment techniques: [observation], [participation], [written-test].</p> <p>Assessment forms: [midterm exam], [assignment], [report].</p> <p>CLO 1 => ILO 1: 25% (Midterm Exam: written test) and 25% (Assignment1: participation)</p> <p>CLO 2 => ILO 4: 40% (Report: observation) and 10% (Assignment2: participation)</p>
<p>Study and examination requirements and forms of examination</p>	<p>Study and examination requirements:</p> <ul style="list-style-type: none"> - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the class due to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get a final grade. <p>Form of examination:</p> <p>Written exam: Essay</p>
<p>Media employed</p>	<p>Video conference, slide presentation, Learning Management System (LMS)</p>
<p>Reading list</p>	<p>Main : http://developer.android.com/courses/advanced-training</p> <p>Support : Philips, Bill, 2017, “Android Programming: The Big Nerd Ranch Guide”</p>

