Module Description

Module name	Visual Programming
Module level, if applicable	Bachelor of Informatics
Code, if applicable	435D4233
Subtitle, if applicable	-
Course, if applicable	-
Semester(s) in which the module is taught	4th
Person responsible for the module	Dr. Ir. Zahir Zainuddin, M.Sc
Lecturer	1. Dr. Ir. Zahir Zainuddin, M.Sc 2. Elly Warni, ST., MT 3. Muhammad Alief Fahdal Imran Oemar, ST., M.Sc
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a compulsory course and offered in the 4th semester.
Type of teaching, contact hours	Teaching methods: [group discussion], [collaborative learning], [project-based learning]. Teaching forms: [lecture], [tutorial]. CH : 08.00 - 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)

Requirements according to the examination regulations	Students have participated in at least 80% of the learning activities (Academic Regulations, Chapter VII)
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course, Students are able: **Intended Learning Outcomes (ILO):** **ILO 1 : Have the knowledge of fundamental Computing Science** that includes basic theory and concept of computer science, Mathematics and Statistics, Programming Algorithm, Software Engineering and Information System **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. **Course Learning Objective (CLO):** After following the Visual Programming Course for one semester, students **know the basic concepts** of programming in transforming data into information, the basic concepts of programming in presenting the information. Students are able to **develop** simple applications with the determination of the use of instructions, the creativity of ideas, communication skills, and neat presentation of information independently **Sub CLO :** ILO 1= > CLO 1 : Students **know the basic concepts** of programming in transforming data into information, the basic concepts of programming in presenting the information. ILO 4 => CLO 2 : Students are able to **develop** simple applications with the determination of the use of instructions, the creativity of ideas, communication skills, and neat presentation of information independently.
Content	Students will learn about : 1. Visual Programming Concepts and Visual Programming Basics (programming building blocks, basic variables and operators) 2. Structured Control (Statement, Selection, Repetition) 3. OOP principles (encapsulation, inheritance, polymorphism)

	4. Readers, strings, and Arrays. 5. Java Swing 6. Swing visual components (JFrame, Jlabel, JtextField, Jbutton) 7. Visual UI (GUI) (JComboBox, JRadioButton, JCheckBox, JSpinner, JSlider, JTextArea, JTextPane) 8. Swing visual components for multi-window applications (JMenu, JDialog, JDesktopPane, JInternalFrame (as Swing Container), and JInternalFrame (as external class)) 9. Database 10. DML 11. MySql 12. JDBC
Forms of Assessment	Assessment techniques: [observation], [written test]. Assessment forms: [quiz], [final term exam], [assignment]. Quiz = 25%, Finalterm exam = 30%, Assignment = 45% CLO 1 => ILO 1: 55% (Quiz and Final term exam: written test) CLO 2 => ILO 4: 45% (Assignment: observation)
Study and examination requirements and forms of examination	**Study and examination requirements:** - 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. **Form of examination:** Written exam: Essay
Media employed	Video Conference, Video and Power Point Presentation.
Reading list	**Main :** 1. CayHorstman, Big Java (4th Ed), Wiley, 2010 2. Paul Deitel, Harver Daitel, “Java: How to Program 9th Edition” ,Prentice Hall, 2012 3. Adam Myatt, Brian Leonard and Greertjan Wielenga, “Pro NeatBeans IDE 6: Rich Client Pltafrom Edition”, Apress 2008