Course Code	TKEE163126
Course Name	Switching and Signaling
Course Instructors	Wahyu Dewanto,
Course Type	Selected Elective
Course Classification	Engineering Topics
Credit / Contact Hour per Week	2 / 100 minutes per Week
Course Description	This course (Switching and Signaling, SS) examines the concepts and theories associated with communication networks in general and telecommunication networks of telephones in particular. These Splicing and Signaling materials include: Introduction; Understanding SS, Splicing Systems (manual or automated), Connection Process, Base Connection device, Linking System Linking with Signaling System, Signal signaling flow in connection system, Signaling Processing System, Signaling Signal, Basic Element In SS System. This course is given in semester 5 and is mandatory subject of concentration of signaling system & electronics specialization in telecommunication field. This 2 credits lecture should be taken after following the Basic Telecommunication course even though it is not a requirement. In order for the students' understanding of the subject matter to be more in-depth, the assignment of field observations to existing connecting and signaling systems should be given. Things found in the field can be discussed in the classroom.
Prerequisites Courses	Telcommunication Engineering
Covered Student Outcome	**Fundamental and Engineering Knowledge (a)**

Learning Outcome	1. Students are able to understand and be able to explain automated switching systems, recognize a variety of automated switching systems, and understand the processes and working mechanisms of various types of automatic con- nections. 2. Students are able to understand and explain the basics of connecting devices, elements, features, and functions existing in the connection system. 3. Students are able to understand the linkage between the Linking system and the Signaling system, understand the signal signaling generation and its mechanism in the Step-by-step system. 4. Students are able to understand and explain the signaling signal flow in the connection system and the necessity of Link Numbering Scheme in the SS system. 5. Students are able to understand and explain the various forms of signaling and its classification, as well as its advantages and disadvantages. 6. Students are able to understand and explain an important part of the SPC that is Register-Translator - Sender, understand the mechanism of General Trunking in the SS system
Topic	1. Introduction 2. Definition of connection and signaling (SS) 3. Linking System 4. Linking Systems (Continued) 5. Automatic Splicing (Continued) 6. Connection Process 7. Basic Connection Device 8. Linking Systems and Signaling 9. Trunking Diagram on SS System 10. Signaling 11. Signaling (Continued) 12. Elements in the SS System 13. Presentation and Discussion of Field Observation Results
Direct Asessment	

Direct Asessment Plan	**Measured Learning Outcome**
Assignments	LO2,LO3

	Mid Exam	LO1,LO2,LO3
	Final Exam	LO4,LO5,LO6
Indirect Assesment	Questionnaire (EDOM)	
References	[1] Flood, J.E.,1994, Telecommunications Switching, Traffic and Networks, Prentice HallEurope [2] Freeman, R.L., 1994, Reference Manual for Telecommunications Engineering, 2nd Edition, John Wiley & Sons Inc., New York [3] Viswanathan, T., 1992, Telecommunication Switching Systems & Networks, Prentice Hall of India, New Delhi	