COURSE TITLE	**TE142306: Advanced Power System Analysis** Credits: 3 Semester: II
LEARNING OBJECTIVE	To have an understanding of power flow analysis, short circuit analysis and stability analysis in electric power systems.
COMPETENCY	• To have a skill of power flow analysis and its application in electric power systems. • To have a skill of short circuit analysis and its application in electric power systems. • To have a skill of stability analysis and its application in electric power systems.
SUBJECTS	Basic principles; Generator model; Transmission Line model; Transformer model; Per Unit system; Bus Admittance matrix; Bus Impedance matrix; Power Flow analysis; Symmetrical Components; Balanced and Unbalanced Short Circuit analysis, Stability analysis.
MAIN REFERENCES	• Hadi Saadat, Power System Analysis, International Editions, McGraw-Hill Inc., 2004. • J. Duncan Glover, Mulukutla S. Sarma, Power System Analysis and Design, Brook/Cole – Thomson Learning Inc., 2002. • J.J. Grainger, W.D Stevenson, Jr., Power System Analysis, International Editions, McGraw-Hill Inc., 1994. • J. Arrillaga, N.R. Watson, Computer Modelling of Electrical Power Systems, Second Edition, John Wiley and Sons Ltd., 2001.
OPTIONAL REFERENCES	Artikel dari jurnal ilmiah : IEEE Trans. On Power Systems, IEEE Trans. On Power Delivery dan lain-lain. Selected articels from scientific journals : IEEE Trans. On Power Systems, IEEE Trans. On Power Delivery etc.
PREREQUISITE	-