Module designation	*Artificial neural network*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*Dr. Sri Andayani S.Si., M.Kom.*
Language	*Bahasa Indonesia*
Relation to curriculum	*Elective course*
Teaching methods	*150 minutes lectures and 180 minutes structured activities per week.*
Workload (incl. contact hours, self-study hours)	*Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes self-study per week for 16 weeks.*
Credit points	*3*
Required and recommended prerequisites for joining the module	*MAT6307 - Algorithm and Programming*
Module objectives/intended learning outcomes	*Students know that/know how to/are able to* *CO1. Demonstrate a polite, honest, and good-faith attitude in lectures.* *CO2. Solve problems using basic scientific concepts learned by implementing artificial neural networks, perceptron networks, multilayer perceptrons, backpropagation methods, and other artificial neural network algorithms.* *CO3. Communicate ideas for solving problems in artificial neural networks based on artificial neural networks, perceptron networks, multilayer perceptrons, backpropagation methods, and other artificial neural network algorithms independently and in groups* *CO4. Solving problems using artificial neural network concepts* *CO5. Utilizing computer programs to implement artificial neural networks in solving problems.*
Content	*The Artificial Neural Networks course discusses the definition, problems, and introduction to methods in Artificial Neural Networks. Topics covered include: the definition of artificial neural networks, activation functions and learning processes in ANNs, ANN architecture and algorithms.*
Examination forms	*CO1: Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the assumption that basically every student has a good attitude.*

Study and examination requirements	*The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.* *The final mark will be weight as follow:*

No	CO	Assessment Object	Assessment Technique	Weight
1	CO 1	a. Presentation b. Discussion	Observation	5% 10%
2	CO 2, CO 3, CO 4	a. Individual assignment b. Group assignment c. Quiz d. Midterm e. Final test	Written	10% 10% 20% 20% 25%
		Total		100%

Reading list	*1. H. Demuth, M. Beale, and M. Hagan, "Neural network toolbox User's guide: For Use with MATLAB," The Mathworks, p. 846, 2000, [Online]. Available: http://www.varpa.org/Docencia/Files/nnet.pdf.* *2. R. M. Hristev, "The ANN Book- Edition 1." the GNU Public License, p. 392, 1998* *3. Li Min Fu :Neural Network in Computer Intelligence" 1994. Mc Graw Hill* *4. Andayani, Sri. 2021. Deteksi Kelelahan Mata berbasis Computer Vision untuk Mencegah Human Error dan Kecelakaan Kerja*