Module designation	*Decision Support System*
Semester(s) in which the module is taught	*5*
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. Appreciate the ideas of others in solving SPK problems using Simple Additive Weighting, Analytical Hierarchy Process (AHP), TOPSIS, PROMETHEE, and other Multi Criteria Decision Making models, both independently and in groups* *CO2. Solving SPK problems using basic scientific concepts learned with Simple Additive Weighting, Analytical Hierarchy Process (AHP), TOPSIS, PROMETHEE, and other Multi-Criteria Decision Making models* *CO3. Communicating critical and systematic ideas in solving DSS problems independently and in groups, both verbally and in writing* *CO4. Communicating creative and innovative ideas in solving DSS problems independently and in groups, both verbally and in writing* *CO5. Applying DSS methods including Simple Additive Weighting, Analytical Hierarchy Process (AHP), TOPSIS, PROMETHEE, and other Multi-Criteria Decision Making models to solve decision support problems* *CO6. Utilizing computer software to implement DSS methods in solving problems.*

<table>
<tr><td>Content</td><td>The Decision Support Systems course is worth 3 credits and covers material on Decision Making Theory, the Basics of Decision Making Systems (DMS), Methods in Decision Making: Multicriteria decision making (AHP, SAW, WP, ELECTRE, TOPSIS, PROMETHEE) and Fuzzy multicriteria decision making. The learning process for the Decision Support Systems course is conducted in an interactive, holistic, integrative, scientific, contextual, thematic, and effective manner. These characteristics are manifested in the form of assignments to find actual data and solve DSS problems by using the DSS methods studied.</td></tr>
<tr><td>Examination forms</td><td>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.</td></tr>
<tr><td>Study and examination requirements</td><td>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:
<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>CO 1</td><td>a. Presentation
b. Discussion</td><td>Observation</td><td>5%
10%</td></tr>
<tr><td>2</td><td>CO 2, CO 3, CO 4</td><td>a. Individual assignment
b. Group assignment
c. Quiz
d. Midterm
e. Final test</td><td>Written</td><td>10%
10%
20%
20%
25%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
</table>
</td></tr>
</table>

Reading list	*1. B. Sri Kusumadewi, Sri Hartati, Agus Harjoko, Retantyo Wardoyo. 2006. Fuzzy Multi Attribute Decision Making (Fuzzy MADM), Graha Ilmu, Yogyakarta.* *2. D. Andayani, S., Hartati, S., Wardoyo, R., & Mardapi, D. (2017). Decision-Making Model for Student Assessment by Unifying Numerical and Linguistic Data. International Journal of Electrical and Computer Engineering (IJECE), 7(1), pp. 363~373, ISSN: 2088-8708, doi: 10.11591/ijece.v7i1.pp363-373* *3. C. Anjasmaya, R.,& Andayani, S. (2018). Sistem Pendukung Keputusan Penentuan Komoditi Sayuran Berdasarkan Karakteristik Lahan Menggunakan Metode PROMETHEE. JUITA, 6(2), p-ISSN: 2086-9398 (print); e-ISSN: 2579-9801 (online)* *4. A. Turban, E., Sharda, R., & Delen, D., 2011. Decision Support dan Business Intelligence Systems. Ninth Edition. Pearson Education Inc. Publishing* *5. S Andayani., T A S Yusri. 2023. Clustering Analysis untuk Sistem Rekomendasi Peningkatan Pembangunan Daerah.*