Module designation	*Financial Mathematics*
Semester(s) in which the module is taught	*5*
Person responsible for the module	*Rosita Kusumawati S.Si., M.Sc.*
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	*MAT6305 - Integral Calculus*
Module objectives/intended learning outcomes	*CO1 Be responsible in accordance with ethics in carrying out every financial mathematics lecture activity* *CO2 Master mathematical concepts to solve problems in the field of financial mathematics.* *CO3 Solve financial mathematics problems independently or in groups.* *CO4 Apply basic financial mathematics concepts in solving real-world problems.*
Content	*This course covers topics relevant to the field of finance, such as interest rate theory, accumulation functions, sum functions, basic functions of single and compound interest, nominal interest rates, discount rates, present value, initial annuities, final annuities, general annuities, amortization, sinking funds, bonds, and yield rates.*
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.*

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<tr>
<td>Study and examination requirements</td>
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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>
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<td>Reading list</td>
<td>

1. Stephen G. Kellison. 2009. The Theory of Interest. Third Edition. Mc Graw Hill.

2. Daniel, J.W. and Vaaler, L.J.F., Mathematical Interest Theory (Second Edition), 2009, The Mathematical Association of America.

3. Persatuan Aktuaris Indonesia. (2022, November). Contoh Soal Ujian ASAI. Retrieved from Persatuan Aktuaris Indonesia (The Society of Actuaries of Indonesia): https://www.aktuaris.or.id/page/content/29/asai.

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