Undergraduate Programme in Mathematics

Module name | Operation Research
Module level, if applicable | Bachelor
Code, if applicable | MMM-2311
Subtitle, if applicable | -
Courses, if applicable | Operation Research
Semester(s) in which the module is taught | 3rd (third)

Person responsible for the module
Chair of the Lab. of Applied Mathematics and Chair of the Lab. of Mathematical Computation

Lecturer(s)
Dr. Indarsih, S.Si., M.Si.
Dr. Irwan Endrayanto A, S.Si., M.Sc.

Language | Bahasa Indonesia
Relation to curriculum | Elective course in the second year (3rd semester) Bachelor Degree
Type of teaching, contact hours | 150 minutes lectures and 180 minutes structured activities per week.

Workload
Total workload is 136 hours per semester, which consists of 150 minutes lectures per week for 14 weeks, 180 minutes structured activities per week, 180 minutes individual study per week, in total is 16 weeks per semester, including mid exam and final exam.

Credit points | 3(1)
Requirements according to the examination regulations
Students have taken Operation Research course (MMM-2311) and have an examination card where the course is stated on.

Recommended prerequisites
Students have taken the module of Linear Programming (MMM-2312) and have participated in the final exam of the module.

Module objectives/intended learning outcomes
CO 1. Students are able to analyze models in operation research.
CO 2. Students are able to solve the models by their algorithms.
CO 3. Students are able to apply the models in real problems.
CO 4. Students are able to using software optimization to solve the models in operation research.

Content

Study and examination requirements and forms of examination
The final mark will be weighted as follows:

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<tr>
<th>No</th>
<th>Assessment methods (components, activities)</th>
<th>Weight (percentage)</th>
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<tr>
<td>1.</td>
<td>Final Examination</td>
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<td>2.</td>
<td>Mid-Term Examination</td>
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<td>3.</td>
<td>Quiz, Homework, Presentation, Laboratory work</td>
<td>35</td>
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The initial cut-off points for grades A, B, C, and D should not be less than 80%, 70%, 50%, and 40%, respectively.

Media employed
Projector, board, computer, e-learning via http://elisa.ugm.ac.id, win-QSB.

Reading List
[1] Indarsih, 2016, Modul Praktikum Riset Operasi, Departemen Matematika, FMIPA, UGM
### CO and PLO Mapping

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