Title of Module:
Environmental Management

Coordinator(s) / organiser(s):
Prof. Soedjajadi Keman., dr., M.S., P.hD. (Module Leader)

Teaching Faculty

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Qualifications*</th>
<th>Hours contributed</th>
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</thead>
<tbody>
<tr>
<td>Professor</td>
<td>Soedjajadi Keman</td>
<td>dr., M.S., P.hD.</td>
<td>5</td>
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<tr>
<td>Dr.</td>
<td>Lilis Sulistyorini</td>
<td>Ir., M.Kes., Dr.</td>
<td>6.7</td>
</tr>
<tr>
<td>Dr.</td>
<td>Roro Azizah</td>
<td>S.H., M.Kes., Dr.</td>
<td>11.7</td>
</tr>
<tr>
<td>Mr.</td>
<td>Aditya Sukma Pawitra</td>
<td>S.KM., M.KL.</td>
<td>8.2</td>
</tr>
<tr>
<td>Ms.</td>
<td>Corie Indria Prasasti</td>
<td>S.KM., M.Kes.</td>
<td>5</td>
</tr>
<tr>
<td>Ms.</td>
<td>Retno Adriyani</td>
<td>S.T., M.Kes.</td>
<td>6.73</td>
</tr>
<tr>
<td>Ms.</td>
<td>Khuliyah Candraning Diyanah</td>
<td>S.KM., M.KL.</td>
<td>10</td>
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*PhD, Master, 20 years service (in practice) etc. Only provide details for faculty responsible for 25% or more of course load.

Core /elective or optional:
Elective:
Waste Management (LKM312)
Environmental Management System (LKM310)

<table>
<thead>
<tr>
<th>Number of SKS credits allocated</th>
<th>Student's workload in hours</th>
<th>Contact work hours*</th>
<th>Self-study work hours</th>
</tr>
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<tbody>
<tr>
<td>4 SKS</td>
<td>181.33</td>
<td>53.33</td>
<td>128</td>
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*includes lectures, seminars, face-to-face, assessments

Learning competences / objectives
On successful completion of this module students will be able to:
Waste Management:
1. Explain how to manage liquid, solid and gas waste
2. Explain how to control domestic, industrial waste and hazardous and toxic materials
3. Explain the negative impact of waste on the community
Environmental Management System:
1. Define environmental management system
2. Analyze environmental documents using some national regulations for the decision making process

Syllabus content. Brief overview of syllabus using bullet points.
Waste Management:
- Sources and types of waste (liquid, solid and gas) and their effects on the community
- Management of liquid, solid and gas waste
- Management of hazardous and toxic material
Environmental Management System:
- The scope of environmental management and sustainable development
- National regulation related to environmental management
- Quality management system (ISO 14000)
- Environmental economic instruments
- Instruments to prevent environmental damage
- Environmental audit
- Environmental risk analysis and its impact on the community
- Community involvement in Environment Health Risk Assessment (EHRA)
- Methodology and protection of Environment Health Risk Assessment (EHRA)

Module level timetable - indicate the timing of the teaching sessions from the upcoming teaching year:
- Waste Management: 6th semester
- Environmental Management System: 7th semester

Pedagogic/teaching methodology:
Scheduled learning includes lectures and discussions about the actual real life cases which are given by lecturer. During lecture in the classroom, the lecturer gives the didactic question and creates a chance for students to deliver their though about specific case. Students are asked to adapt the critical thingking for solving health problem.
Lecturer presented the teaching materials with LCD and whiteboard. In one class, all the students are divided into small groups. Each group has to discuss the topic determined by the lecturer and presents the results to the class.
Independent learning includes hours engaged with essential reading, assignment preparation and completion and self-directed study. Students are provided with access to essential and supplementary learning via email or e-learning (AULA) and whiteboard.

Assessments used:
There are three types of examination:
1. Middle examination (40%)
2. Final examination (50%)
3. Structured assignment (10%)
Each examination takes 100 minutes includes multiple choice questions, essays, and case studies. The examination assesses the students’ knowledge and understanding and all learning outcomes of the module. Structured assignment is given by writing a paper then the students present it.

<table>
<thead>
<tr>
<th>Weeks required and place in academic calendar:</th>
<th>Number of weeks</th>
<th>Week number</th>
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<tbody>
<tr>
<td>Waste Management Weeks beginning 02/2020-05/2020</td>
<td>16</td>
<td>17-32</td>
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<tr>
<td>Environmental Management System Weeks beginning 08/2020-11/2020</td>
<td>16</td>
<td>01-16</td>
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