# Module/Course Description/Syllabus

<table>
<thead>
<tr>
<th><strong>Module</strong>:</th>
<th><strong>International Logistics (IL)</strong></th>
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| **Module courses**: | **Transport Logistics (TL)**  
Production & Warehouse Logistics (PWL)  
Project Management (PM)  
Seminar on International Logistics (SoIL)** |
| **Course Title**: | **Transport Logistics** |
| **Recommended alternative module or courses**: | - |
| **Course of studies**: | **Business Administration** |
| **HISinOne Code**: | **1182103** |
| **Study Cycle**: |  
- first  
- second  
- third  
- short |
| **Frequency**: |  
- winter term  
- summer term  
- each semester |
| **Language competence Level**: | |
| **Responsible for the Module/Course**: | **Prof. Dr.-Ing. O. Kunze** |
| **Lecturer/s**: | **Prof. Dr.-Ing. O. Kunze** |
| **Type of course**: |  
- optional  
- compulsory |
| **Mode of delivery**: | **face-to-face** |
| **Language of Instruction**: |  
- English  
- German  
- Level of course:  
- 5th semester |
| **Teaching Methods**: |  
- Lecture (50%)  
- Volume:  
- hours per semester week 03  
- Homework Exercises (25%) => group work  
- Literature Research Project & Presentation (25%) => group work |
| **Work parameters**: |  
- Contact hours in lecture form  
- Exercices (hours)  
- Self-studies (hours)  
- All together (hours)  
- 45  
- 20  
- 25  
- ECTS-Credits: 03  
- Length of programme: 1 semester |
| **Number of Participants**: | **approx. 20** |
| **Use for other studies**: | **Supply Chain Management** |
## Prerequisites:

Statistics  
Fundamental Mathematics  
English  
MS-Office (Excel, Word, Powerpoint)

## Learning outcomes:

- Ability to detect optimization problems in logistics;  
- Ability to model logistical problems formally as OR-models;  
- Ability to solve problems by use of appropriate SW-tools;  
- Understand potentials and limitations of optimization tools in logistics

## Content:

- Logistics in a nutshell  
- Optimization basics  
- Brief summary of relevant OR-models and suitable algorithms, as e.g.  
  - Shortest Path Problem SPP  
  - Vehicle Routing Problem VRP & variances thereof (as e.g. VRP-TW)  
  - Facility Location Problem FLP & variances thereof (as e.g. cml-FLP)  
  - Chinese Postman Problem CPP  
  - ...  
- Case studies:  
  - problem modelling in different vertical industries  
  - solving formally modelled problems by means of appropriate SW-tools
### Examination Regulations:

- Oral Exam: 50%
- Group Exercises: 25%
- Group Literature Research Project: 25%

### Assessment methods/components:

**Basis for Assessment:**
- Oral Exam: quality of oral answers
- Group Exercise: exercise result documentation & presentation
- Literature Research Project: presentation

### Assessment criteria:

- HNU-Standard

### Planned learning activities and teaching methods:

See above
### Required reading and other learning resources/tools:

- Hillier/Lieberman  
  *Introduction to Operations Research*

- Brandimarte/Zotteri  
  *Introduction to Distribution Logistics*

### Recommended reading and other learning resources/tools:

- Selected journal articles on operations research in transport logistics

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**Additional information:**