Teaching methods and material descriptions
(Colibri 2\textsuperscript{nd} year, 2016)

This document describes the teaching methods being used in the modules throughout the first year. These methods are closely related to the modules’ structure and the expected workload for each of the module levels.

Module Structure:

Each module consists of three levels: Introduction (1 h. workload), basic (5 h. workload), and advanced (10 h. workload). Each student is required to follow all the modules at introductory level (10 modules), 4 modules at basic level and 2 at advanced level. The total number of hours of the selected modules \textbf{MUST} be 50 + 2 dedicated to preparing a presentation for the Midway seminar.

Teaching methods:

Each level in a module consists of \textbf{SOME} of the following main tasks and activities (not necessarily all):

- **Introduction level (1 h.):**
  - Overview lecture (max. 2 videos of max. 10 min.)
  - Individual task or assignment
  - Individual task or assignment + peer review
  - Peer learning in project groups
  - Optional literature/material

- **Basic level (5 h.):**
  - 10 min. self-assessment (+ preliminary material)
  - 60-120 min. literature study
  - Video lectures with shorter tasks (max. 10 min. lecture/5-10 min. self-correcting questions/ working with tools) (120-180 min.) max 50% of video lectures.
  - Self-correcting quizzes and assignments. Quizzes follow a common template.
  - Practical exercises to work with the relevant tools
  - Q&A forum

- **Advanced level (10 h.):**
• Literature reading
• Video lectures (max. 10 min. lecture)
• Group assignments (in 2-4 people groups)
• Peer assessment workshops: Assignment + peer assessment (students assessing students)
• Article assignment: Reading, discussion, presentation of work in relation to an article
• Additional material in the form of videos, books, scientific papers, PPTs...
• Quizzes

Additionally, the students will be involved in a variety of activities during the physical seminars focusing on presentations such as:

• Pitch talks in front of their peers
• Interactive lectures about presentations and slide deck preparation
• Videos addressing issues in professional communication

Project Supervision:

Each supervisor has his/her own style when supervising project and we so not set any limit or constrains. However, some good practices are recommended in order to for the students to understand the purpose and the expected outcomes of the group projects:

• Supervisors may help the students to refine (or narrow down) the project proposals’ goals.
• Supervisor may need to help the student understand how the project relates to the course modules and how the acquired knowledge could be put into practice.
• It is important that the local coordinators explain the dynamics and purpose of project work when recruiting students.
• Supervisors should encourage the students to write the minutes of their virtual meetings along the project work period (with and without the supervisor). In this way, the supervisors can easily follow the progress of the group. A common template for the minutes is used and made available in Moodle.

Modules time plan:

The following time restrictions are applied when working in the modules due to coordination limitations:

• A basic level of a module should be finished before starting the advanced level of the same module.
• Peer assignments/activities in the advanced modules will take place in the last 3 weeks of the module period (March 28th – April 16th).
• All introduction levels, basic levels of the selected modules, and (self-) assessment should be finished 2 weeks before the Mid-way seminar (by April 4th).
• All modules should be finished 2 days before the Mid-way seminar (by April 16th).
• Each student must prepare a 10 minute presentation of one of the advanced level assignments before the Midway seminar. This presentation (as PDF) must be uploaded to Moodle (by April 16th)

**Figure 1. Course timeplan.**

**Availability of the teaching material:**

• All module information will be made available on moodle.aau.dk (each teacher and student will be provided with a log-in, but guest access will also be allowed).
• Videos are posted in Youtube under a unique Colibri account and hosted/stored on the repository made available by EKT/NHRF.

**Material format details:**

The material provided to the students consists mainly of videos, Internet links, and presentations and documents (.PPT, .PDF, .DOC, .XLS). In specific cases, additional tools (including their own format files) may be used such as MapInfo.

• **Video specifications:**
  o Minimum quality: 720p and 25-30 fps.
  o Format: Publishable in Youtube (one stream) (.avi, mpeg4, .mov, .wmv, ...).
- The Colibri and Erasmus + logos must be visible in the youtube channel, and in the videos (at least the beginning and the end).
- Video editing tools: Freedom of choice (BoixTV for Mac, Windows Movie Maker, iMovie for mac, Lightworks...).
- Lecture videos may be also in the form of PPT presentation with voice over explanations.

**Material reviewing, quality assurance and evaluation:**

This process has three phases, two reviewing rounds and a final quality assurance round. For each module, each review is done by two partners not directly involved in the teaching of that particular module, and the final quality assurance for all modules is done by the same partner (ateneKom) to guarantee coherency:

- **First round:** Reviewing of the teaching material in terms of content quality, alignment with the predefined module learning goals, appropriate workload, and fulfilment of type of activities (predefined in the modules’ structure rules).
- **Second round:** Reviewing of video lectures and learning material display in Moodle.
- **Final quality assurance:** Evaluation of the course as a whole, focusing on the overall course presentation in Moodle, unified module structure, and fulfilment of the course’s learning goals.

The students play a key role in the Colibri living lab and they are involved in the evaluation and refinement of the teaching material and learning objectives. During the Mid-way seminar, each module is finalized by having a round-off lecture. During these lectures, students have the chance of discussing about the material and activities for each concrete module with the module leader. This sort of feedback also includes the students’ opinions about the concrete content of the modules and how this can be adapted/modified for the following years. In the same way, during the Project seminar, students should discuss about the projects’ outcome and how the learning process led them to achieve the learning goals of the course. Discussions about specific issues such as relevance of the project themes or workload-expected outcome relation are highly relevant to have the student involved in definition of the learning objectives and dynamics of the course.