**Appendix**

**”EMPTY” course program**

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| **Time** | **Topic** | **Type of teaching** | **Responsible** | **Comments** |
| 08:00 | Registration, group formation & Pretest |  | Course organizers | Dividing students into three groups leading by HROs, assigning a group supervisor from organizers, and a group observer/evaluator |
| 08:30 | Introduction to the course | Lecture, video | Course director | Introducing the course and the subject. Using 3LC/MacSim technique – short icebreaker exercise solving a simple problem individually versus collectively – learning the advantages of collaboration  |
| 08:45 | Healthcare tasks in crisis | Lecture, PPP | Healthcare | Lecture containing all take-home messages (see the main text) |
| 09:00 | Rescue teams tasks in crisis | Lecture, PPP | Rescue team | Lecture containing all take-home messages (see the main text) |
| 09:15 | Police tasks in crisis | Lecture, PPP | Police | Lecture containing all take-home messages (see the main text) |
| 09:35 | Group works, situation awareness | Short table-top | Each group leader | Introduction to roles and responsibility. Using 3LC technique – in table-top scenario answering the question; What will you do on the accident site? |
| 10:00 | Scenario 1, Fire | Simulation | All | Role play under the supervision of each HRO. Using 3LC/MacSim technique – the simulation is stopped when a common organization is established and all participants have started their efforts. |
| 11:00 | Review of work in each group | Face-to-Face | Each group leader | Scenario discussion and other related aspects such as own safety |
| 11:30 | Review of scenario I | Group discussion | Course director | Large group discussion, reflection on own safety. Using 3LC technique - Two questions are presented 1) What did you do at the accident site? 2) Was there something that you could have done differently? |
| 12:00 | Lunch |  |  |  |
| 12:45 | Group works before scenario play | Short table-top | Each group leader | Introduction to roles and responsibility. Using 3LC technique – in table-top scenario answering the question; What will you do on the accident site? |
| 13:15 | Scenario 1, Attacking school | Simulation | All | Role play under the supervision of each HRO. Using 3LC/MacSim technique – the simulation is stopped when a common organization is established and all participants have started their efforts. |
| 14:15 | Review of work in each group | Face-to-Face | Each group leader | Scenario discussion and other related aspects such as own safety |
| 14: 45 | Review of scenario II | Group discussion | Course director | Large group discussion, reflection on own safety. Using 3LC technique - Two questions are presented 1) What did you do at the accident site? 2) Was there something that you could have done differently? |
| 15:15 | Own safety and considerations | Group discussion | All | Large group discussion. Youth in focus |
| 15:45 | Evaluation, post-testDiploma |  | All | Written and oral evaluation by students |
| 16:15  | End of the course |  | Course organizers | Discussion, professional evaluation of the course, program, and its impact on students together with school representatives, observers, evaluators |

* EMPTY is a combined and adjusted one-day course based on two validated programs (see reference 9 in the main text);

**3LC** is a training model used to train small and large groups of participants in emergencies and major incidents. The development of the 3LC model was based on the hypothesis that the collaborative elements in a mutual task help to reduce the organizational barriers. Organizational abilities and limitations were enlisted to promote an interplay with no hierarchal authority, as well as to promote the ability to switch between different collaboration strategies as demanded by the specific situation. Collaboration training offers a chance to not only exhibit stability (the qualities that one develops through drill and practice), but also to practice transitions, overlaps, fearlessness, improvisation, creative thinking, and the ability to handle unexpected situations. The 3LC-exercises include three seminars and two exercise sessions. During the seminars, the following are discussed: (1) what has been done; (2) all the mistakes; (3) alternative strategies; (4) comparisons between the different strategies; and (5) suggestions for improvement. By using seminars, repetitions, and interactive documentation, 3LC offers all the participants an opportunity to obtain knowledge about each other’s roles and understand the logic behind their actions, agendas, concepts, and hierarchical levels. It also enables repeated decision-making in a safe environment.

**MacSim** is developed for scientific development and evaluation of methodology used in the medical response to major incidents. However, it can also be used for education and training for the medical response, and testing an existing organization with regard to planning and preparedness for, and performance in, major incidents. It mobilizes and utilizes all available resources in an integrated multi-disciplinary alert- and response process and different levels of an organization. It offers a possibility to intensively obtain the needed knowledge and skills required by interactive training, that is, “learning by doing.” The exercises are run with either fictive or real and known resource and engage all staff from different organizations, who perform their tasks. Thus, the whole chain of response, including command, communication, and coordination is trained and evaluated. In addition, the ability of decision-making in various managerial level is improved by repeated decision-making in an environment, which allows repeated mistakes. Based on the available information (e.g., data about the available resources, demographic and geographic conditions, etc.), decisions are made, which consequently will affect the consumption of time, resources, and also the outcome of the patients (e.g., mortality and morbidity) and gives an opportunity to evaluate the outcome of all decisions made. MacSim course consists of lectures, video demonstration, group discussion, table-top, and simulation scenarios. The participants are evaluated by pre- and post-course tests and face-to-face observations.