Fire University of Warsaw, Poland
Faculty of Security Engineering and Civil Protection
Syllabus 2018 -

# Engineering design of air quality

Engineering design of air quality

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| profile | general academics |
| degree | first degree |
| programme | ERASMUS |
| semester | 1 |
| part time / full time | full time |
| ECTS | 2 |
| coordinator | prof. dr hab. inż. Wioletta Rogula-Kozłowska |

## form of the activity: exercise

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| hours | 16 |
| prerequisites | Basic knowledge of chemistry and physics |
| objectives | To familiarise a student with the methodologies for assessing the spread of pollutants in ambient air and the factors that determine it |
| methods | Presentation, discussion, project implementation |
| own work | Work on the project |
| basic literature | Overview of methods to assess population exposure to ambient air pollution - World Health Organization 2023 |
| supplementary literature | |

| contents | hours |
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| Theory for modeling the spread of pollutants. Factors that shape gas and dust concentrations in the air | 4 |
| Research tools for modeling the spread of pollutants | 2 |
| Case study: Selection of tools for different scenarios of the spread of pollutants | 2 |
| Case study: Modeling and calculations for different scenarios of the spread of pollutants | 6 |
| Discussion and evaluation of performed scenarios | 2 |