

# Applied Operations Research



Mario Vanhoucke

## Course material:

**Book with slides:** A bundle with slides entitled “Applied Operations Research” by Mario Vanhoucke will also be made available by Academia Press (and distributed by the student representatives). Academia Press has a student website available at [www.story4students.be](http://www.story4students.be). The book will become available via the student association at the start of the course. Check their website at [www.vek.be](http://www.vek.be) for more information.

**Additional slides:** on Minerva

## Course outline

<b>Friday, 29/09/2017</b>	<b><i>Class session 1</i></b> - Practical details about the course - A general introduction to Operations Research (review) - An introduction to the case
<b>Friday, 06/10/2017</b>	<b><i>No class session!</i></b> - Beware that you finish case A - Available for questions between 13.00 and 18.00 (room 120.012)
<b>Friday, 13/10/2017</b>	<b><i>No class session!</i></b> - Beware that you finish case B - Available for questions between 13.00 and 18.00 (room 120.012) - Submit your first report (cases A and B) to room 120.013 before 16.30h
<b>Friday, 20/10/2017</b>	<b><i>Short group session!</i></b> - Beware that you finish case C - Individual feedback on your first report (room 120.012, see Minerva schedule)
 <b>Monday, 23/10/2017</b>	<b><i>Class session 2</i></b> - Practical case study on personnel scheduling (= topic of the case) - Integration of various OR techniques
 <b>Tuesday, 24/10/2017</b>	<b><i>No class session!</i></b> - Available for questions between 13.00 and 16.00 (room 120.012) (Note that I leave for a teaching assignment in Beijing and I won't be physically available till 10/11/2017)
<b>Friday, 10/11/2017</b>	<b><i>Class session 3</i></b> - Heuristic and meta-heuristic optimization - Heuristic programming skills necessary to solve case E
<b>Friday, 17/11/2017</b>	<b><i>No class session!</i></b> - Beware that you finish case D - Submit your second report (cases C and D) to room 120.013 before 16.30h
<b>Friday, 24/11/2017</b>	<b><i>Short group session!</i></b> - Beware that you review cases A-D and that you start working on case E - Individual feedback on your second report (room 120.012, see Minerva schedule)
<b>Friday, 01/12/2017</b>	<b><i>Class session 4</i></b> - Monte-Carlo and discrete-event simulation - Risk analysis skills necessary to solve case F - Assistants are available for questions all days (room 120.011)
<b>Friday, 08/12/2017</b>	<b><i>Class session 5</i></b> - Guest speaker: From research to consultancy! - Assistants are available for questions all days (room 120.011) - Beware that you finish cases E and F
<b>Friday, 15/12/2017</b>	<b><i>No class session</i></b> - Presentation of your main results (15 minutes, see Minerva schedule) - Submit your final report at the start of your presentation

**General group feedback** will be available (announced on Minerva) after reading the final reports.