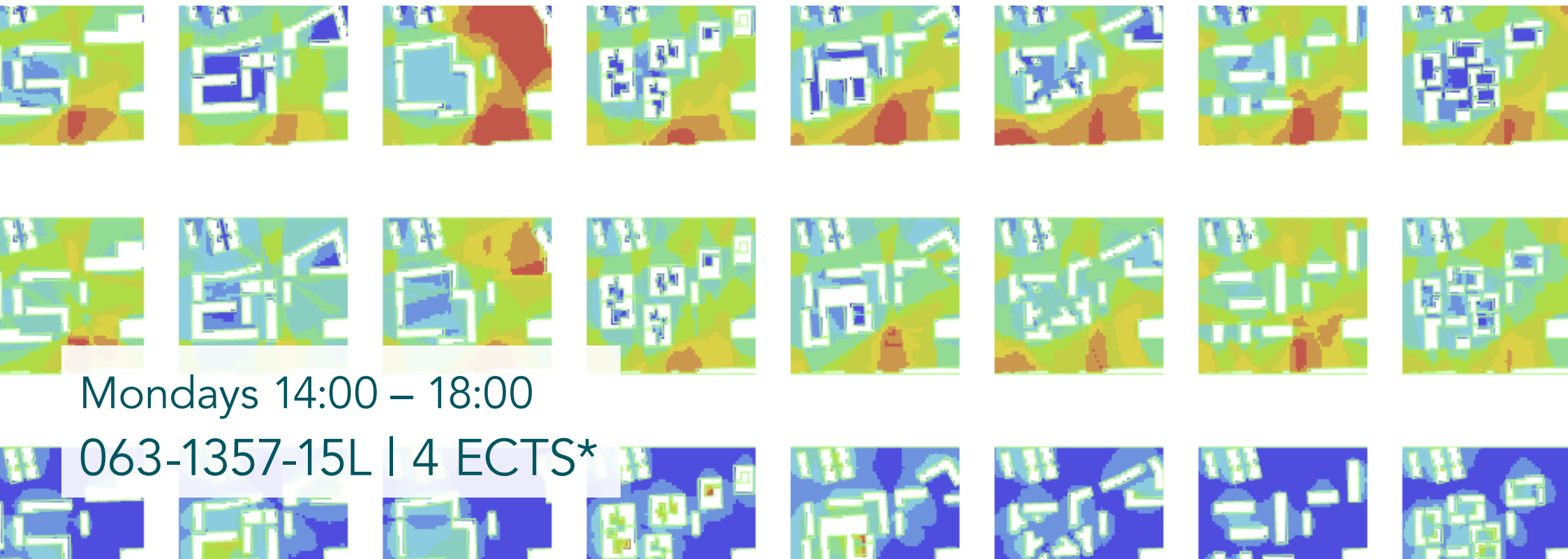


DIGITAL URBAN SIMULATION



Mondays 14:00 – 18:00

063-1357-15L | 4 ECTS*

Digital Urban Simulation

In this course students analyze architectural and urban design using current computational methods. Based on these analyses the effects of planning can be simulated and understood.

An important focus of this course is the interpretation of the analysis and simulation results and the application of these corresponding methods in early planning phases.

The students learn how the design and planning of cities can be evidence based by using scientific methods. The teaching unit convey knowledge in state-of-the-art and emerging spatial analysis and simulation methods and equip students with skills in modern software systems. The course consists of lectures, associated exercises, workshops as well as of one integral project work.

Where

HIT H 31.4 (Video wall)

Supervision

Dr. Reinhard König

reinhard.koenig@arch.ethz.ch

Estefania Tapias

tapias@arch.ethz.ch

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|-------------|--|
| 21.09.2015 | Introduction to the course Rhino/Grasshopper tutorial |
| 28.09.2015 | Space syntax I E1 - Convex Map, Axial Map of a small area |
| 05.10..2015 | Space syntax II E2 - Depthmap & GIS: Prepare data -> Import data -> Analysis methods |
| 12.10.2015 | Empirical studies E3 - Collect data (evaluate existing materials) |
| 19.10.2015 | Seminar week (No lecture) |
| 26.10..2015 | Microclimate analysis I E4 - Ecotect Tutorial I. Analysis of a small urban area. |
| 02.11.2015 | Microclimate analysis II E5 - Ecotect Tutorial I. Analysis of a small urban area. |
| 09.11.2015 | Best practice examples - Guest lecture, consultation |
| 16.11.2015 | Workshop E6 - Data Analysis (Matthias Standfest) |
| 23.11.2015 | Final consultation |
| 30.11.2015 | Final iA critique Combined critique with the other iA courses (14:00 - 18:00) |

* Total 120 h = 4 ECTS

3 Exercises 25% (documentations)

Presentation 25% (project at the end)

Written documentation 50%

The most recent outline will be found on www.ia.arch.ethz.ch