



**activity**

**Urban Network Analysis training in Rhinoceros3D**

The workshop will introduce participants to the concepts of modeling pedestrian flows over spatial networks using UNA tools. The workshop will consist of an introductory lecture that describes the capabilities and application areas of UNA tools in urban design and planning, inperson introduction of the different software functionalities available; a conduct of 2 hands on training exercises using pre-prepared datasets, as well as time to trouble-shoot issues and questions with participants.

Ahead of the training a few related articles will be shared with participants as optional background reading. At the workshop, participants will also be introduced to both printed and digital copies of the UNA user guide as well as online training videos.

**professor**

**Andres Sevtsuk**

Associate Professor of Urban Science and Planning a MIT.  
Director of the City Form Lab.



**dates**

**11-13 July 2022**

**adressed to**

Aimed preferably at: 4th - 5th years students of the Degree in Architecture Studies and the Degree in Landscaping; Master Habilitant ETSAB and ETSAV; MBArch and MISMEC.  
Masterclass also open to: UPC students and other engineers and architects who meet the technicals requirements.  
(1 ECTS elective for GARqEtsab students)

**requirements**

For a successful follow-up, students are required to have:  
Good grasp of Rhino | Good use of MS Excel  
Experience with GIS (either ArcMap, ArcGISPro, or QGIS) desirable

**fees**

ETSAB/ETSAV	<b>100€</b>
other UPC students	<b>150€</b>
other	<b>200€</b>

**schedule**

**First Day.**  
 13.30-14.30 | Introductory lecture.  
 14.30-17.30 | Software installation, introduction to setting up networks. Examining pedestrian or bike accessibility on networks. Exercise 1 handed out and completed in class (can be continued as homework). Teams formed and homework distributed for representing a chosen design scheme as a spatial network.  
 17.30-18.30 | Teams work independently on documenting the chosen scheme as a network in Rhino.  
**Second Day.**  
 9.00-10.00 | Desk-crits with all teams to examine the network representations of their schemes. Team work time.  
 10.00-12.30 | Introduction to pedestrian flow modeling. Exercise 2 handed out and started in class (continued as homework).  
 13.30-16.30 | Introduction to spatial patronage estimation and analysis of pedestrian flow with multiple competing destinations.  
 17.30-18.30 | Desk-crits while teams work independently on the analysis of their schemes.  
**Third Day.**  
 9.00-10.00 | Introduction of additional tools to model detours and “frustration points” for pedestrians in spatial networks.  
 10.00-12.30 | Desk-crits while teams work on the analysis of their schemes and presentation materials.  
 13.30-14.30 | Team work to finalize presentations. Faculty floating around for help.  
 14.30-16.30 | Team presentations.

**application**

**until 23 June 2022**

**complete online form + fee payment (see QR):**

