

Syllabus

Course format	
What	One-week seminar, Summer School 2017
Where	Napoli, Centro Congressi Città della Scienza
When	July 24 th – July 28 th 2017

Course	
Title	DESIGNING FOR DECISION-MAKING, DECISION-MAKING FOR DESIGNING
Objectives	<p>In the ASP framework, students attend the “Decision Making”’s lectures after the courses devoted to “Dynamics of Innovation” and “Design Methods and Processes”. This is the third and final step in understanding the complexity of the dynamics we all happen in describing and solving problems.</p> <p>The main aims of this edition of the course are:</p> <ol style="list-style-type: none"> 1. making students aware of the role of decision making in practice, paying attention to the opposite market’s and planning’s theories 2. giving students an idea of the possible future development of “decision making” activities in urban life 3. describing different processes and different outcomes concerning several case studies in urban design (letting students make a short and intense experience on a <i>decision making question</i>-not a <i>design question</i>- in the field of urban design/regeneration, often managed by public and private subjects at the same time and in conflict) 4. introducing students to the enhancement of the subject <i>decision making</i> in the digital societies and in the smart industries (facing in such a way the public and the private sphere).
Structure	<p>In each of the first four days of the Summer School, couples of speakers will give lectures on the topics:</p> <ul style="list-style-type: none"> • The contemporary city as a complex subject of nowadays: new kind of “mapping” it and new kind of “recycling” it (1st DAY) • The new planning approaches based on <i>commons</i> and the new economic approaches based on market control (2nd DAY) • The public sphere and the private sphere in urban regeneration processes all over the world: two case studies, one in Europe and one in China (3rd DAY) • The frontiers of decision making in the digital society (4th DAY) <p>In each of the first four days of the Summer School, half time will be used to take part in Group work. Students, divided in five teams, each one lead by one of the five tutors, will visit, know and study the College Costanzo Ciano, formerly Allied Joint Force Command (JFC), NATO base. Afterwards they will discuss some “possible scenarios”, designing a process (in term of Pert Diagram, for example) useful to take decision in each specific context, i.e. establishing a decision-making path.</p> <p>At the end, the outcomes of the team working activities will be discussed by students in a plenary meeting (seminar) with the Coordinator of the Course and the Tutors.</p>

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Group work	
Objectives	<p>The aim of the Group is the design of the decision making process needful to develop a regeneration of the Allied Joint Force Command (JFC) base in Bagnoli. The Group work will not focus on designing the physical transformations of that area.</p> <ul style="list-style-type: none"> • Each tutor will organize a multidisciplinary team of around 30/35 students and he/she will introduce him/her-self through a short lecture about a single case study he/she already worked about on the topic of decision making. (1st DAY) • Students will visit with their tutors and some other experts the NATO base, getting information and data from Comune di Napoli and from Università di Napoli Federico II. (2nd DAY) • In each of the five class, tutor and students will discuss the goals to reach and the possible decision making scenarios, representing them through diagrams. In a plenary session, the experts from abroad will help the five teams in improving their proposals. (3rd DAY) • Come back to each of the five classes, tutor and students will design their own decision making process to regenerate NATO base in Bagnoli. They will prepare a 2 seconds videoclip to show the result of their considerations, debate & work, process' proposal. (4th DAY) • During the final day of the Summer School, diagrams and videoclips will be shown and discussed in an open and plenary critic review session. (5th DAY)

Papers (students' individual work)	
Collecting keywords/ Writing a glossary	<p>As is the ASP's costume, students will be asked to write individually a paper on the topics and issues proposed by the Summer School lectures and emerged from the workshop activities. During the lectures they will be asked to highlight and collect the most important keywords related to the topic of "decision making". They will post those keywords on a shared platform, day by day.</p> <p>At the end of the week, the Coordinator and the tutors will choose, among the collected keywords, 80/90 items useful to write a "Critical Glossary of Decision Making (CGDM)", that will be the final outcome of the ASP Summer School 2017 edition.</p> <p>Actually each of the 80/90 items will become the argument of the paper of two different students. They will develop it according to the layout and the schemes that will be explained during the group work session.</p> <p>Among the 160/190 delivered "papers", the Teaching Staff will select which 80/90 papers that will enter in the final version of the CGDM.</p>
Size	<p>minimum 6.000 / maximum 10.000 characters (space included) even with diagrams, pictures, references (further details about the "papers" structure will be outlined during the school)</p>
Deadlines	<p>October, 30th 2017: submission December, 30th 2017: evaluation</p>

Recommended readings (selected on line papers)	
General topic	<p>Hansen C.T., Andreasen M.M. (2004) A mapping for decision-making International Design Conference, Decision Making Workshop, pp 1409 - 1418 https://www.designsociety.org/publication/19931/a_mapping_of_design_decision-making</p> <p>Dodgson J.S. (2009) Multi-criteria analysis: a manual. Department for Communities and Local Government, London, UK. http://eprints.lse.ac.uk/12761/1/Multi-criteria_Analysis.pdf</p> <p>May, A.D. et al. (2005/2005) A Decision Makers' Guidebook. Developing Sustainable Urban Land Use and Trnsport Strategies Prospects/European Commission http://www.ivv.tuwien.ac.at/uploads/media/DMG_English_Version_2005_02.pdf</p> <p>Wang Y., Ruhe G.(2007) The Cognitive Process of Decision Making International Journal of Cognitive Informatics and Natural Intelligence, 1(2), 73-85, April-June 2007 73 https://pdfs.semanticscholar.org/7d63/1e6580dbd4dc92a3e12f29fb3f2a50651537.pdf</p> <p>Milkman, K. L., D. Chugh, and Bazerman M.H. (2009) How Can Decision Making Be Improved? Perspectives on Psychological Science 4, no. 4, pp 379–383 http://www.hbs.edu/faculty/Pages/item.aspx?num=34685</p>
Historical Background	<p>Bellman R.E., Zadeh L.A. (1970) Decision-Making in a Fuzzy Environment Management Science Vol. 17, No. 4, Application Series (Dec., 1970), pp. B141-B164 http://sucena.eng.br/eng_producao/2017/DecisionMakingFuzzyEnvironmentBellmanZadeh1970.pdf</p> <p>Voogd H. (1981) Qualitative multicriteria evaluation methods for development planning Canadian Journal of Regional Science 1, 73-87. http://www.cjrs-rcsr.org/archives/4-1/voogd.pdf</p> <p>George P. Huber (1990) A Theory of the Effects of Advanced Information Technologies on Organizational Design, Intelligence, and Decision Making The Academy of Management Review, Vol. 15, No. 1 (Jan., 1990), pp. 47-71 http://digitalcollections.library.cmu.edu/awweb/awarchive?type=file&item=49179</p>
Engineering approach	<p>Howard R.A., Matheson J. (2005) Influence diagram, in decision Analysis, Vol.2, No. 3, September 2005, pp 127-143 http://cs.ru.nl/~peterl/BN/influencediagrams05.pdf</p> <p>Rehman F., Yan XT. A Case Study to Support Conceptual Design Decision Making Using Context Knowledge Yan XT., Jiang C., Eynard B. (eds) Advanced Design and Manufacture to Gain a Competitive Edge. Springer, London https://link.springer.com/chapter/10.1007/978-1-84800-241-8_2</p> <p>Girod M., Elliott A. C., Burns N.D., Wright I. C. (2003) Decision making in conceptual engineering design: an empirical investigation Proceedings of the Institution of Mechanical Engineers. Part B J. Engineering Manufacture, 217, 1215-1228. doi: 10.1243/095440503322420142 http://journals.sagepub.com/doi/abs/10.1243/095440503322420142</p> <p>Yildirim V., Yomralioglu T, Nisanci R., Cplak H. E., Bediroglu S., Saralioglu E. (2016) A spatial multicriteria decision-making method for natural gas transmission pipeline routing, Structure and Infrastructure Engineering, DOI: 10.1080/15732479.2016.1173071 http://www.tandfonline.com/doi/abs/10.1080/15732479.2016.1173071?journalCode=nsie20</p>
Urban themes' approach:	<p>Lee G. K. L., Chan E. H. W. (2008) The Analytic Hierarchy Process (AHP) Approach for Assessment of Urban Renewal Proposals Social Indicators Research, 89, 155-168. https://link.springer.com/article/10.1007/s11205-007-9228-x</p>

	<p>Suneela A. (2017) Urban Morphologies, Design Qualities and the Decision Making Process in Relationship to <i>maqamat</i>: Case of Karachi, Pakistan in Engineering Science and Technology International Research Journal, Vol. 1, no. 1 2017 http://www.estirj.com/Volume.1/1%20Suneela.pdf</p> <p>Ye Y., Van Nes A. (2014) The spatial flaws of new towns: Morphological comparison between a Chinese new and old town through the application of space syntax, spacematrix and mixed use index, ITU A ZVOL: 11, NO: 2, 191-208, 2014-2 https://repository.tudelft.nl/islandora/object/uuid:ffa920a1-e423-468e-b7b6-d621af739748/datastream/OBJ</p> <p>Ustugova S., Parygin D., Sadovnikova N., Finogeev A., Kizim A. (2016) Monitoring of Social Reactions to Support Decision Making on Issues of Urban Territory Management Procedia Computer Science, Volume 101, 2016, pp 243-252 http://www.sciencedirect.com/science/article/pii/S1877050916326965</p> <p>Cerreta M., Inglese P., Manzi M.L. (2016) A Multi-Methodological Decision-Making Process for Cultural Landscapes Evaluation: The Green Lucania Project Procedia - Social and Behavioral Sciences, Volume 216, 6 January 2016, pp 578-590 http://www.sciencedirect.com/science/article/pii/S1877042815062060</p> <p>Cerreta, M., Fusco Girard L. (2016) Human Smart Landscape: An Adaptive and Synergistic Approach for the "National Park of Cilento, Vallo di Diano and Alburni" Agriculture and Agricultural Science Procedia, Volume 8, 2016, Pages 489-493 http://www.sciencedirect.com/science/article/pii/S2210784316300511</p> <p>Feleki E., Achillas Ch., Moussiopoulos N., Michailidou A.V. (2016) Involving decision-makers in the transformation of results into urban sustainability policies in European Journal of Environmental Sciences. 6. 7-10. 10.14712/23361964.2016.2. https://www.researchgate.net/publication/304184315_Involving_decision-makers_in_the_transformation_of_results_into_urban_sustainability_policies www.ejes.cz/index.php/ejes/article/download/263/110/</p>
New approaches:	<p>Mayer I., Van Bueren E., Bots P.W.G., Van der Voort H., Seijde R. (2005) Collaborative decision making for sustainable urban renewal projects: a simulation - gaming approach, in Environment and Planning B: Planning and Design 2005, volume 32, pages 403 – 423. http://www.nextgenerationinfrastructures.eu/catalog/file/464175/EPB_32_05_Mayer.pdf</p> <p>Mayer I., Van Bueren E. (2016) A simulation game for sustainable decision making http://www.irbnet.de/daten/conda/CIB4216.pdf</p> <p>Van der Hulst A.H., Muller T.J., Buiel E., Van Gelooven D., Ruijsendaal M. (2014) Serious gaming for complex decision making: Training approaches International Journal of Technology Enhanced Learning (IJTEL), Vol. 6, No. 3, 2014 https://doi.org/10.1504/IJTEL.2014.068364</p>
See also:	<p>Open University Free course Making Decision @ http://www.open.edu/openlearn/money-management/management/leadership-and-management/making-decisions/content-section-0 (also free on Amazon)</p> <p>Steven Johnson, Where good ideas come from @ https://www.youtube.com/watch?v=NugRZGDbPFU</p>