



UNIVERSITÀ
DEGLI STUDI
FIRENZE

DIDA
DIPARTIMENTO DI
ARCHITETTURA

DIPARTIMENTO DI ARCHITETTURA
Thematic seminar

ADE – AIRPORT DESIGN EXPERIENCE
PRACTICE AND RESEARCH APPROACH METHODS DEALING WITH
INDUSTRIAL CASES: AIRPORTS

Teachers:

Prof. Maria Antonietta Esposito, Università degli Studi di Firenze, IT (Coordinator)
Prof. Richard De Neufville, Massachusetts Institute of Technology, USA¹
Prof. Colin Pugh, Manchester Metropolitan University, UK²
Arch. Colin Ward, Foster Associates, Honk Kong³
Arch. Sergio Valentini, Jahn Architects, USA⁴
Arch. Massimiliano Fuksas, Italia⁵
Arch. AndrewThomas, Grimshaw Architects, UK⁶

Scientific and cultural framework of the theme

The seminar is part of a cultural and educational cooperation existing between the University of Florence and the international cutting hedge professionals in airport design practice. The topics covered include the airport concept design. In particular, it will cover topics such as the way to achieve the sustainability objectives, which characterize its current definition (cultural, socio-economic and environmental) as high performance building. The proposed approach is targeted to share in the

¹ Visiting
² Visiting
³ Visiting
⁴ Visiting
⁵ Visiting
⁶ Visiting



project team the concept of airport design, to obtain an improvement of the architectural and functional project design.

In addition, the approach will be contextualized within Green Building integrated methodologies using tools to evaluate the technology solutions for building. GB is presented as the methodology to many sustainability problems of the Aviation Industry. The airport owners worldwide require delivery of projects based on quality, technically valid, meeting both plans and costs, constructable in the specific operation conditions in airports. The EU and international air flow management defines the background scenario and the requirements as well. The Seminar will develop and discuss in deep airport design concept approach and the Green Building and also presents their impact on international practices. These concepts will be also related to the airport projects life cycle.

Finally the Seminar will offer the attendee the occasion of an inter-disciplinary debate within leading academia and outstanding professionals on how these trends impact architectural design. The seminar introduces the concepts of airport design and a architectural workshop session will follow.

At the end of the workshop the attendee will present and discuss the work, confronting the criteria proposed in front of an interdisciplinary committee. Participant teams will be interdisciplinary, formed by architects and engineers.

Learning objectives

The seminar is related to the project for the promotion of participants skills in architectural airport design and it regards, in particular, the cooperation and



exchanges between university and international design firms. In this view it may support the participants international networking. The plan of activity foresees a coordinated set of specific knowledge, methods and tool transfer.

The educational goal is to learn the airport project design steps and advanced methodologies, integrated through appropriate activities during design development and by providing guidance on the basic techniques for using the necessary technological tools. The seminar project consists of a workshop organized in collaboration with the professional partners that, according to the specific objectives of the Seminar, will be developed collectively at the Italian university and singularly at the foreign partner site for participants selected by an interdisciplinary jury. The teaching method will utilize the skills gained in the field of international research by the various teachers involved. In particular it will be based in the fields of Design Science and Green Building.

The foreseen resources are at least one professor for each involved discipline, dedicated space for attendees activities, workshop, international experts attendance to form the interdisciplinary jury.

Activities will be evaluated by the jury by a discussion on the results in the projects.

Schedule of training activities

The seminar will take place in April - June 2016 and includes the development of activities into 4 parts:

- The first part on airport design and its practice to be held starting Apr 18-20th



UNIVERSITÀ
DEGLI STUDI
FIRENZE

DIDA
DIPARTIMENTO DI
ARCHITETTURA

- The second part on Green Building starting Apr 21st
- The third on impact of new trends in Architecture practices Apr 22th
- The fourth will be the workshop from June 1st to 10th (to be confirmed).
The workshop will end with best participants selection for the individual international program.

Determination of ECTS of training activities

The commitment is estimated at **12 ECTS**. Consistent with the rules and regulations of the foreign institutions, a part of the credits will be recognized by the partner university. The seminar can be recognized as a free choice course/examination.

The exam will be registered with the **code B020767**, by participants registered as university students.

Admission requirements and registration

The maximum allows **participants number is 20**. Allowed attendee shall:

- To be in career within Aviation Industry companies
- To be enrolled at the University of Florence at least at the 4th year of the degree course in one cycle in Architecture or Master of Science degree in Architecture or Engineering at the School of Architecture at the University of Florence or at other EU and International Universities;
- To document a good knowledge of English or French language.

Attendee wishing to participate in the thematic workshop must submit their applications by **February 1st, 2016** and refine the final application by sending the registration form (see www.txpresearch.wordpress.com) and the Europass CV in <*.pdf> format by **February 1st, 2016** to the following addresses:



To: txp.mae@gmail.com

CC: txp.fbo@gmail.com; txp.efo@gmail.com

Submissions will be accepted until all available seats on the basis of a merit list on the following criteria:

- Career and, eventually, position in the company (send a resume)

For registered university students (**Architect and Engineering**):

- **Career regularity** (number of exams compared to the year in progress);
- **Total number of exams**;
- **Average of exams results**
- **English and/or French documented level.**

Additional positions will be taken into consideration.

Description of the planned training activities

The seminar is divided into three groups of educational activities.

1) Airport Design and its practices (FLORENCE – ROME days 18-20 of April 2016)

In-depth analysis activities of the Airport Design on the state of the specific topic addressed by the seminar:

- lectures and presentations by teachers and other proponents teachers
- study/research by students .

The conduct of these activities will take place both at the University of Florence and the headquarters of ENAC in Rome will develop over a period corresponding to approximately 2 CFU .



2) Green Building (FLORENCE – ROME 21 of April 2016)

- Lectures and presentations by teachers and other proponents teachers
- Workshop activities with application design by students .

The conduct of these activities will take place at the University of Florence and at the headquarters of ENAC in Rome and will develop over a period corresponding to approximately 2 CFU .

3) New trends in Architecture practices FLORENCE - ROME 22 of April 2016)

The third on impact of new trends in Architecture practices.
The conduct of these activities will take place at the University of Florence and at the headquarters of ENAC in Rome and will develop over a period corresponding to approximately 2 CFU .

4) Workshop (FLORENCE 1st -9th of June 2016)⁷

- Projects Design by students.

Conclusion (FIRENZE 10th June 2016)

- Discussion of projects by students

Jury evaluation for the international exchange of deserving students will follow.

These activities will take place at the headquarters of the University of Florence and will be developed over a period corresponding to approximately 6 CFU.

⁷ to be confirmed



UNIVERSITÀ
DEGLI STUDI
FIRENZE

DIDA
DIPARTIMENTO DI
ARCHITETTURA

Bibliography

De Neufville R., Scholtes S. (2011) *Flexibility in Engineering Design*, MIT Press, Boston.

De Neufville, R.; Odoni, A. (2013) 2nd ed. (2003) 1st ed. *Airport Systems Planning, Design, and Management*. New York: McGraw-Hill.

Esposito M.A. (2010) 2nd ed.(2008) 1st ed. *Tecnologie di progetto per il terminal aeroportuale*. Firenze: FUP – Firenze University Press, ISBN: 9788864531366